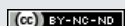




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Rana Al Jaroudi

DIETARY TRANSITION AMONG ARAB MUSLIM IMMIGRANTS: A PHENOMENOLOGICALLY INFORMED STUDY

ABSTRACT

This study aimed to investigate the lived experiences of Arab Muslim immigrants in Canada, with a particular focus on how changes in diet healthfulness vary according to the stage of dietary transition in immigrants' countries of origin. A qualitative study utilizing a phenomenologically informed study was conducted with twenty-four Arab Muslim mothers living in Southern Ontario, Canada. Data was collected through semi-structured individual interviews exploring food availability, meal preparation, and food choices after immigration to Canada. Contextual descriptive information about participants' backgrounds and dietary experiences was also considered to situate their accounts within the migration and nutrition transition contexts. The interviews were transcribed, coded, and analyzed using NVivo11 Qualitative Analysis Software. An inductive thematic analysis was used as the analytic strategy within the phenomenologically informed study to identify emergent themes and interpret participants' lived experiences of dietary change. The participants reported noticeable dietary changes after migration. However, unlike immigrants from lower-income countries, those from high-income countries (e.g., Gulf states) did not report an increase in eating out or fast-food consumption, as these habits were already prevalent before migration. Across groups, some healthy practices were adopted after immigration, including more frequent use of nutrition labels and reduced reliance on frying as a cooking method. The influence of immigration on diet quality appears to depend on the stage of dietary transition in the country of origin. Overall, dietary changes among Arab Muslim immigrants in Canada involved balancing food-related traditions with adaptation to Canadian culture and food practices. The study illustrates the value of a phenomenologically informed qualitative approach using semi-structured interviews, supported by contextual descriptive information, for exploring lived experiences of dietary change in immigrant populations. This methodological insight may inform qualitative research on migration, food practices, and cultural adaptation in similar contexts.

Keywords

Immigrants; Dietary transition; Meal preparation; Immigrant mothers; Arab.

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1. Introduction

There has been much debate regarding whether, why, and how immigrant diets change upon immigration to Western countries and how this impacts their health status. An important factor that may shape the healthiness of the new diet is the nutrition transition in both the country of origin and the country of immigration. Popkin (2002) defined the nutrition transition as a rapid shift in food consumption patterns and physical activity levels, leading to measurable effects on health outcomes, obesity, and the development of diet-related diseases in the adult population. In this context, the focus is on dietary components. When migrants leave countries that are still in the early stages of the nutrition transition and move to high-income countries, their diets may become less healthy as they adopt some of the dietary patterns prevalent in their new environment, reflecting broader global trends in the stages of the nutrition transition (Popkin, 2002).

Recent evidence supports this expectation, with studies among Arab and other immigrant populations in Western countries reporting increased consumption of energy-dense and processed foods and changes in traditional dietary practices following migration (Elshahat & Moffat, 2020). Satia (2010) explained that the nutrition transition occurs due to two main factors: globalization, which involves industrialized food production and international food systems, and urbanization, which reflects individual-level changes associated with migration from rural to urban areas and increasing incomes. As urbanization becomes increasingly prevalent and wealth increases, even in countries of origin, traditional foods once consumed daily may become a smaller or negligible part of individuals' diets, whereas the consumption of more convenient, processed, or "festival" foods increases (Azar et al., 2013). This dietary shift has been observed across a range of settings, where evolving urban food environments and transforming food systems are associated with less diverse diets and greater reliance on processed products, contributing to the ongoing dietary transition, and the double burden of malnutrition in rapidly urbanizing populations (Popkin et al., 2020; Barth-Jaeggi et al., 2023).

One aspect of behavioral change that may occur as part of the process of dietary transition involves a shift away from immigrants' traditional food-related values and behaviors to those of the host country; the more different an individual's original culture is from the host country's culture, the more challenging it will be for that individual to acculturate (Satia-Abouta, 2002). However, when immigrants are better educated and skilled and come from urban areas, there is less risk of cultural isolation when they immigrate to a developed host country (Satia-Abouta, 2002). Nonetheless, those who immigrate to ethnic areas of the host country, such as Chinatowns, or who are compelled to immigrate, such as refugees, face greater challenges in acculturating to the host culture (Satia-Abouta, 2002).

However, the experiences of dietary change among Arab Muslim immigrants in Canada might differ from those described in traditional migrant dietary acculturation models. Evidence indicates that some unhealthy dietary adaptations may already be occurring in Arab countries, where traditional dietary patterns predominate and exposure to Western food environments leads to reductions in diet quality (Mehio Sibai et al., 2010; Aboul-Enein et al., 2016).

This is an important observation that indicates the degree of dietary change experienced after immigration, which may vary depending on the stage of the transition in the country of origin. Consistent with this assumption, global migration research reports that dietary acculturation post-migration often involves a shift away from traditional diets toward greater consumption of energy-dense, processed foods and other host-country dietary patterns linked to certain chronic disease risks, such as obesity, type 2 diabetes, and cardiovascular conditions (Varre et al., 2025; Lillekroken et al., 2024). In contrast, growing evidence suggests that unhealthy dietary habit adaptation and rising obesity prevalence are already occurring in Arab countries (Mehio Sibai et al., 2010; Aboul-Enein et al., 2016). Obesity rates have been rising rapidly in high-income Gulf countries (AlNohair, 2014) and even in lower-income countries such as Egypt, which had the highest level of age-standardized obesity in adults in 2015 among the 20 most populous countries worldwide (GBD 2015 Obesity Collaborators et al., 2017).

These trends indicate that Arab Muslim immigrants may arrive in Canada having already experienced varying degrees of nutrition transition in their countries of origin, potentially altering the nature and direction of dietary changes following migration. Although dietary acculturation is often associated with less healthy dietary patterns, studies have also reported positive dietary changes, suggesting that adaptation may involve both healthier and less healthy practices (Lesser et al., 2014; Abou El Hassan & Hekmat, 2012). Dietary changes may also vary according to pre-migration practices and household circumstances (Neumark-Sztainer et al., 2003; Azar et al., 2013; GBD 2015 Obesity Collaborators et al., 2017). These factors suggest that dietary acculturation is a complex process, rather than a uniform shift toward Western dietary practices.

Despite this, few studies have clearly examined how the stage of nutrition transition in the country of origin shapes the healthiness of post-migration dietary patterns among Arab Muslim immigrant populations in the United States. There is also limited qualitative evidence on how Arab Muslim immigrant mothers experience and interpret dietary changes. Qualitative inquiry provides an opportunity to examine how immigrants experience and interpret dietary changes in the context of migration and cultural adaptation. The phenomenological informed used in this study contributes not only to understanding dietary transition among Arab Muslim immigrants but also offers methodological insight into exploring the lived experiences of dietary change in cross-cultural contexts. The present study addresses this gap by examining how the stage of nutrition transition in the country of origin may shape the apparent healthiness of the diet after migration among Arab Muslim immigrants.

2. Methodology

This study employed a primarily qualitative phenomenologically informed design to explore the lived experiences of Arab Muslim immigrant mothers with dietary changes following their migration to Canada. This section describes the participants and stages of the research process.

2.1 Research Design

This study employed primarily qualitative methods alongside a limited number of closed-ended quantitative questions, as described in prior work on acculturation among Arab Muslim immigrants in Canada (Aljaroudi et al., 2019). An adapted version of the Male Arab American Acculturation Scale (MAAS) was used to assess participants' attitudes toward acculturation (Al-Omari & Scheibmeir, 2009). The items in the scale are gender-neutral, allowing their application to both male and female participants equally.

The MAAS has been previously used to measure acculturation among Arab American men and women (Al-Omari & Scheibmeir, 2009). For this study, all references to "America/American" were changed to "Canada/Canadian." to ensure cultural and contextual relevance. For example, item 4, "I behave like an American in many ways," was changed to "I behave like a Canadian in many ways." Each subscale contained four questions measured using a seven-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Scale scores were derived by combining reverse-scored and positively scored items to measure acculturation. While the MAAS provides a measure of general acculturation (e.g., language use, media engagement, and social interaction), it may not fully capture the gender-specific dimensions of acculturation relevant to women's experiences in Western societies.

Accordingly, the MAAS was used in combination with qualitative methods to allow for a more in-depth exploration of participants' experiences. Quantitative MAAS data was analyzed descriptively rather than inferentially, providing statistical information without performing statistical tests. The study was primarily qualitative, with the adapted MAAS used only to provide descriptive contextual information about the participants' general acculturation patterns. The MAAS data was not used as a separate quantitative component or to generate phenomenological themes; rather, it was used to complement and contextualize the qualitative interview findings. Therefore, the researcher did not conduct a detailed statistical analysis of participant responses. Instead, the data obtained through the adapted MAAS was discussed descriptively. This integration of descriptive MAAS data with qualitative interviews enhanced the reflexivity of the research and allowed for a deeper understanding of participants' lived experiences. It also facilitated the integration of quantitative insights with rich, context-specific narratives generated through qualitative interviews.

This combination of descriptive data with qualitative findings enabled the study to capture both the general patterns of acculturation and the more individual, personal, and contextually grounded experiences of dietary transition and adaptation post-migration. A phenomenologically informed framework was adopted to explore the aspects of everyday life that are meaningful to individuals, such as dietary practices and decision-making. This framework was selected because the research focused on participants' lived experiences of dietary change following immigration and the meanings they attached to food-related practices and their decisions.

This focus informed the use of semi-structured individual interviews, allowing participants to describe their experiences of food availability, meal preparation, and food choices in their own words. The interview data was analyzed inductively to identify themes emerging from participants' accounts, while the interpretation remained grounded in their descriptions of dietary transition and adaptation. Thus, the phenomenological framework provided the methodological orientation for exploring lived experiences, while inductive thematic analysis provided the analytic strategy for organizing and interpreting the data. This approach allowed the analysis to remain grounded in participants' descriptions and the meanings they attributed to their lived experiences, while using inductive thematic analysis to organize these accounts into patterns of meaning. An inductive approach to thematic analysis was employed, focusing on emergent themes, including accessibility, availability, and affordability of food, as well as the relationship between exposure to a new environment and experiences of dietary transition following immigration (Guest et al., 2012). This study received ethical clearance from the University of Waterloo Office of Research Ethics (Approval Number: REB#30805), and all participants provided written informed consent before participating in the study.

2.2 Participants and Recruitment

In this study, twenty-four immigrant women who were the first in their families to move to a new country and had children attending school were selected. To examine food-related experiences and the impact of parents, "school-aged children" were categorized as those between 6 and 14 years old, covering elementary to middle school. Children younger than 6 years and adolescents or young adults aged 15–20 were not included in this segment of the analysis, as the degree of parental control over dietary habits varied significantly across these age groups. Targeting school-aged children allowed the research to focus on the ages at which parental influence was most direct. Mothers were chosen rather than fathers because some researchers have found that immigrant women act as 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 Canadian foods (Vallianatos & Raine, 2008). The eligibility criteria required Arab Canadian Muslim mothers who immigrated to Canada five years or more prior to the study to ensure sufficient time for dietary adaptation. Women who arrived in Canada as refugees were excluded because of the distinct nature of their settlement experience. The participants varied in terms of age, country of origin, length of residence in Canada, education, employment status, and family income (Table 1). Participants were recruited from two urban locations in Canada ([blinded] for details). Recruitment was conducted using printed posters in English and Arabic, which were distributed in public settings and shared on Facebook. Although previous methodological literature has described phenomenological studies as typically involving 6 to 10 participants (Denzin & Lincoln, 1994; Morse, 2000), a larger sample was selected to capture variations across geographic locations and the length of residency in Canada.

Table 1. Participant Characteristics (N=24)

Characteristic	n	%
Age (years)		
30–40	13	54
41–49	9	38
≥50	2	8
Country of origin		
Syria	5	21
Iraq	3	13
Palestine	7	29
Jordan	2	8
Sudan	2	8
Egypt	3	13
Lebanon	1	4
Morocco	1	4
Length of stay in Canada (years)		
5–10	16	67
11–15	4	17
≥16	4	17
Dual citizenship		
Yes	20	83
No	4	17
Mother's education		
High school	1	4
College/Diploma	2	8
University (Bachelor's degree)	19	79
Master's degree	2	8
Mother's employment status		
Employed	17	71
Not employed	7	29
Annual family income (CAD)¹		
≤\$50,000	15	63
>\$50,000	9	38

2.3 Data Collection

Demographic information was collected orally by the lead author at the beginning of each face-to-face semi-structured interview and consisted of open-ended questions posed to participants about their attitudes/experiences concerning food choice, the flavor of their traditional foods, food preparation, and their family's food flavor/texture preferences in relation to food availability in the new culture.

¹ Family income was grouped into two categories for analysis. Percentages may not total exactly 100% because of rounding errors

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 their own words, feelings, thoughts, and experiences (Liamputtong, 2009). The variables included participants' age, country of origin, immigration status, annual income, education level, occupation, and the number and ages of children.

The initial collection of demographic data helped provide context for interpreting participants' responses and understanding the potential influences on dietary practices before and after migration. Following the collection of demographic data, semi-structured interviews were conducted in Arabic by the lead author of this paper. This method allowed participants to express themselves freely in their own words, feelings, and thoughts, thus providing rich qualitative data (Morse, 2000). The interviews lasted between 30 and 60 minutes and took place at a location convenient for each participant, such as a library, community center or coffee shop. All interviews were audio-recorded with the participants' consent to ensure accurate transcription and a clear analysis.

The interviews were transcribed in Arabic and translated into English by a professional translation office for further analysis. The translated transcripts were carefully reviewed by the researcher, who was proficient in both Arabic and English, to ensure that participants' intended meanings and culturally specific expressions related to food, religion, migration, and family life were appropriately preserved. Where culturally specific expressions or meanings required clarification, the researcher compared the English translation with the original Arabic transcript and clarified the meaning before analysis. In this cross-language qualitative study, translation was treated as an interpretive methodological step rather than solely as a technical procedure, as translation may influence the interpretation of participants' lived experiences and culturally embedded meanings.

2.4 Data Analysis

Data analysis followed a phenomenologically informed process using inductive thematic analysis to identify meaning and patterns in the data and was conducted using NVivo 11 Qualitative Analysis Software (QSR International, Melbourne, Australia; 2017). NVivo 11 was used to organize transcripts, document memos and bracketing, code interview data, group codes into themes, and compare the coded material across participants. The software supported the documentation of the analytic process, while the interpretation remained the responsibility of the researchers.

First, reflexive memoing was performed using NVivo's memoing feature to document the researcher's initial thoughts, assumptions, and preconceptions regarding dietary practices, immigration, and acculturation. These reflexive memos were revisited during the transcript review and coding to distinguish researcher assumptions from participants' accounts and to consider their potential influence on coding and theme development (Patton, 2002).

When interpretations were uncertain, the researcher returned to the original interview accounts and discussed the emerging interpretations with the peer researcher. Second, meaning units were identified by reading and re-reading the interview transcripts to identify significant statements and individual units of meaning (Liamputtong, 2009). Third, thematic clustering involved grouping similar meaning units into coherent themes using NVivo's coding functions.

Steps were taken to reduce potential bias from single-researcher coding: the lead researcher and first author conducted the data collection, primary coding, theme development, and final interpretation, while a second researcher independently reviewed two of the 24 interview transcripts and the emerging codes and themes for their accuracy and completeness. Three participants were contacted for follow-up clarification of information from their interviews. The purpose was to clarify participants' accounts and obtain additional information where needed, rather than to formally validate the final themes.

Finally, the key themes were reviewed and integrated into coherent accounts that reflected the participants' shared lived experiences. The analytic process moved iteratively from participants' descriptions to meaning units, initial codes, thematic clusters, and interpretive statements (Table 2) as follows: meaning units were identified from significant statements describing participants' experiences of dietary change, and these were assigned codes that captured the content and meaning of each account. Related codes were then grouped into broader themes, which were interpreted in relation to participants' lived experiences and the context of dietary changes following immigration. This process maintained a clear connection between the participants' original descriptions and the final thematic interpretation.

Table 2. Example of the analytic process from participant account to phenomenological interpretation

Participant excerpt	Meaning unit	Initial code	Theme	Phenomenological interpretation
"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."	The participant learned to read food labels after migration and used information about sugar content to guide food choices for her children.	Learning to read food and nutrition labels after migration	Theme 4: Needing to read food and nutrition labels for health and content reasons	The participant's account illustrates how migration was experienced as an opportunity to develop or strengthen food-label reading as part of everyday dietary decision-making, particularly in relation to children's health and the nutritional content of foods.

Demographic data was analyzed using Microsoft Excel, which was also used to examine differences across subgroups, such as duration of residence in Canada, household income, and maternal employment status (full-time, part-time, or at home). Given the exploratory nature of the study and the modest internal reliability of the MAAS subscales in this sample, quantitative data derived from the MAAS was analyzed descriptively rather than inferentially.

The descriptive analysis included an examination of item-level response patterns, subscale score distributions, and a comparison of acculturation tendencies across participants. These findings were used to contextualize and complement qualitative data rather than to test hypotheses or establish causal relationships.

3. Results

The analysis identified five major themes describing food choices relevant to the dietary transition (Table 3) and then examined the frequency of themes according to mothers' work status and income (Table 4). These comparisons were used descriptively to examine patterns within the sample, rather than to establish statistical associations. Family income categories were used only as descriptive contextual information to indicate variation within the sample. The CAD \$50,000 threshold was a study-specific categorization and was not intended to represent a formal Canadian low-income or socioeconomic threshold. Therefore, the income categories were not interpreted as indicators of socioeconomic status or used to establish socioeconomic differences or associations.

Themes were identified based primarily on the meaning, experiential relevance, interpretive depth, and relevance to the research question within participants' accounts. Frequency was considered as descriptive information to contextualize the distribution of experiences across participants, but it did not determine whether an experience was identified as a major theme. Other major themes related to dietary acculturation have been discussed elsewhere (blinded for review).

Ten of the 24 participants reported that they frequently visited various fast-food chains and restaurants before relocating to Canada (Theme 1, Table 3). A 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 flavors 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 food...etc." This participant's experience shows that eating at restaurants and trying different types of food was already part of their dietary habits before migration.

Almost half (11 of the 24) reported that the main modification in their diet post-migration was adopting healthier eating habits, primarily by avoiding frying and fried foods (Theme 2, Table 3).

One participant explained, “I reduced from 100% to 20%. Instead, I use a toaster oven or grill. We reduced the amount of oil for our health benefits.

In Turkey, I focused on vegetables, beans, and 30% frying oil. After arriving to Canada, I’ve replaced frying with steam cooking, oven, and removed the oil leaving only natural fat.” This shows that the main modification in their diet was the practice of healthier eating habits, primarily by avoiding fried foods.

Almost half (11 of the 24) reported going to restaurants more often post-migration, often to adhere to their children’s requests (Theme 3, Table 3). A participant stated, “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...by the way, I do not eat junk food such as McDonald's or Pizza Hut. But my children and my husband go there to eat.” Another mother said, “The situation here in general is different from Gulf countries; there, their kids suffer from obesity because of fast food, free delivery and cheap prices... Those who stayed there (refer to: Qatar), started to become obese because of fast food and free delivery service...But here in Canada, delivery costs money and this makes you think and make calculations”.

The participant’s experience indicated that children and other family members influence restaurant-related food choices after migration.

The majority (18/24) indicated that upon migration, they learned or, for some, strengthened their need to read food and nutrition labels (Theme 4, Table 3). Participants also stated that they read the labels on food products to know the contents and number of calories in the food products being purchased and to ensure that they are Halal-approved.

One participant stated, “I learned to read them here in Canada, from programs I was following with my kids in the early learning schools.” This experience explains how participants developed new food selection practices after migration while considering their children’s health and Halal dietary requirements. More than half of the participants (14/24) reported consuming easily prepared meals because of the lack of time to prepare meals from scratch, which was their traditional food preparation method (Theme 5, Table 3).

A participant stated, “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.” This participant’s experience shows how the availability of convenient foods and reduced preparation time influenced food preparation practices after migration.

Table 3. Major themes related to healthiness of diet and sample quotes of Arab Muslim mother immigrants (n=24)

Major Themes (5)	Representative Quotes
Theme 1: Dietary habits pre-migration: Frequent visits to fast food chains/restaurants (10/24)	<i>"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 additional to fast-food, Italian, Chinese, Mexican foods...etc."</i>
Theme 2: Changes in diets post-migration: Practicing healthier eating habits such as frying less (11/24).	<i>"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."</i>
Theme 3: Changes in the diet post-migration: Going to restaurants more often (11/24)	<i>"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...by the way I don't eat junk food such as McDonald's or Pizza Hut. But my children and my husband go there to eat."</i> Another mother said that <i>"The situation here in general is different from the Gulf countries; there, their kids suffer from obesity because of fast food, free delivery and cheap prices... Those who stayed there (refer to: Qatar), started to become obese because of fast food and free delivery service...But here in Canada, delivery costs money and this makes you think and make calculations"</i>
Daily food preparation practices upon migration	
Theme 4: Needing to read food and nutrition labels for health and content reasons (18/24)	<i>"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."</i>
Theme 5: Consuming easily prepared meals (14/24)	<i>"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."</i>

Table 4. Changes in aspects of diet following migration by mother's work status and family income

Characteristic	Mother's Work Status			Family Income (CAD) ²	
	Not employed (N = 7)	Part-time (N = 7)	Full-time (N = 10)	≤CAD \$50.000 (N = 15)	>CAD \$50.000 (N = 9)
Food Behavior					
Less Frying Food (Theme 2)	4/7	2/7	5/10	7/15	4/9
Reading Nutrition Facts/ Labels (Theme 4)	6/7	4/7	8/10	11/15	7/9
Dining Out More Frequently (Theme 3)	6/7	2/7	1/10	4/15	5/9

4. Discussion

The interviews conducted in this study identified various changes in the food habits of Arab Muslim immigrant families in Canada, highlighting both positive and negative shifts in their dietary behavior. Some of these changes may be associated with less healthy dietary patterns, such as an increased frequency of eating out in fast-food restaurants and consuming easy-to-prepare or convenience meals.

² Family income is reported in Canadian dollars (CAD). The income categories were used only as descriptive contextual information to indicate variation within the study sample. The CAD \$50,000 threshold was a study-specific categorization and was not intended to represent a formal Canadian low-income or socioeconomic threshold

On the other hand, several behaviors observed were consistent with healthier dietary practices, including reduced frying of foods and positive attention to reading nutritional labels when selecting food. Rather than focusing on a single direction of dietary acculturation, these findings suggest that dietary adaptation can involve simultaneous changes toward and away from healthier practices. These findings emphasize the complex, multifaceted nature of dietary adaptation among immigrants and the interplay between pre-migration experiences, cultural norms, and exposure to the new food environment in the host country. The participants' pre-migration contexts played a significant role in shaping their post-immigration dietary patterns.

For instance, ten families who had spent time in the Gulf states prior to migration came from environments characterized by high incomes and widespread availability of fast-food options. Consequently, some dietary patterns typically associated with Western diets, such as frequent consumption of convenience items, were already established before the families arrived in Canada. In contrast, two participants came from Sudan, where American food products are restricted or banned, limiting their exposure to Western-style foods before migration. Two other participants mentioned that Western food was unavailable in their previous (rural) locations. These differences suggest that migration to Canada did not represent the same dietary transition for all participants. For some, migration introduced greater exposure to Western foods, whereas for others, some elements of this food environment were already familiar before migration. This variation in immigrants' environmental exposure suggests that the stage of nutrition transition in the country of origin may be an important contextual factor shaping how immigrants' diets evolve after migration.

A large body of studies examining immigrants in high-income countries highlights some of the negative shifts in dietary habits, including increased consumption of energy-dense, processed, and deep-fried foods, as well as decreased intake of traditional, nutrient-rich staples (Tami et al., 2012; Lesser et al., 2014; Mellin-Olsen & Wandel, 2005; Varghese & Moore-Orr, 2002; Abou El Hassan & Hekmat, 2012). However, more recent research argues that the impact depends on individual factors and the circumstances in the country of origin. Specifically, the effect of migration on diet may be shaped by several factors, including pre-migration dietary patterns, the stage of dietary transition in the country of origin, and host food environments. Dietary acculturation often involves higher consumption of energy-dense processed foods and lower intake of traditional staples, with implications for obesity and chronic disease risk (Varre et al., 2025).

One study on South Asian immigrants in Canada (Lesser et al., 2014; Abou El Hassan & Hekmat, 2012) found that immigrants adopted some positive healthy eating behaviors, as did a study on Arab immigrants in Toronto (Abou El Hassan & Hekmat, 2012). Evidence also suggests that immigrants may initially have better diet quality, while diet quality may decline with longer residency, potentially reflecting greater exposure to and adoption of less healthy Western dietary patterns (Atoloye et al., 2026).

The present findings support this literature while also showing that dietary adaptation may include both healthier and less healthy changes within the same immigrant group. The variation in findings in different contexts may be related to the relatively later stage of nutritional transition in the countries of origin in the present study compared to that in many previous studies of immigrants from other regions of the world. Another factor in the present study may be the high education levels of the mothers, which might influence their knowledge of healthy food choices, as well as their ability to read and understand English (Popkin et al., 2020).

Interestingly, this finding regarding mothers' work status differs from previous research, which suggests that working parents may experience greater dietary changes due to time-related concerns and convenience considerations (Neumark-Sztainer et al., 2003; Azar et al., 2013; GBD 2015 Obesity Collaborators et al., 2017). Observations from interviews suggested that mothers who did not work outside the home had more time to try new recipes and learn recipes from (non-Arab) friends and neighbors, which may have contributed to positive dietary adaptations despite increased fast-food consumption. This finding highlights the importance of considering household roles and daily routines when assessing food behaviors among immigrants. This also suggests that work status alone may not explain dietary change, and household roles and available time may influence how mothers adapt their food practices.

Overall, this study summarizes information on dietary preferences and adaptation among Muslim Arab immigrants in Canada, a group that is underrepresented in nutrition research. The study used Arabic-language interviews and a phenomenologically informed study to document rich, culturally grounded experiences, capturing the subjective meanings that participants attached to food and their daily dietary practices.

This qualitative approach provides insights into how participants understood and experienced dietary changes within their everyday family and cultural contexts. The findings indicate that dietary adaptation and changes in eating habits may be shaped by multiple contextual factors, including household income, work status, pre-migration exposure to Western diets, and education level. Importantly, the findings demonstrated that dietary changes following migration include both positive and negative shifts, suggesting that interventions to support healthy eating should consider the complexity and variability of immigrant experiences. These findings can be applied to immigrant family support programs and culturally sensitive health education initiatives to promote dietary practices that are both healthful and culturally meaningful.

The phenomenologically informed study provided insights into immigrant mothers' lived experiences of dietary change. Arabic-language interviews supported culturally specific expression, while reflexive memoing and participant follow-up clarification strengthened the interpretation of the participants' accounts (Patton, 2002). Descriptive acculturation data provided additional context for these participants' experiences.

Despite the contributions of this study, it has several limitations. The sample size in this study was relatively small and restricted to urban areas in Southern Ontario, limiting the generalizability of the findings.

Additionally, the findings are specific to a particular demographic group of Arab Muslim immigrants, and experiences may differ among other populations or in other geographic regions; more research is needed to generalize these findings to other populations. While the MAAS provides insight into general acculturation patterns, it may not fully capture gender-specific acculturative experiences or the contextually nuanced dimensions of acculturation, particularly those relevant to women in Western societies.

Future research would benefit from the development or validation of acculturation measures that explicitly incorporate women's roles and social contexts in Western societies. In addition, larger and more diverse samples should be collected to improve generalizability and allow comparative analyses across subgroups.

In summary, the findings from this study underscore that dietary transition and dietary changes among Arab Muslim immigrants are shaped by a complex interplay of pre-immigration context, education, household roles, and exposure to the host food environment. While some dietary adaptations following immigration are positive, such as increased attention to nutrition labels and reduced frying, other changes, such as increased consumption of convenience and fast foods, may pose health risks. The results emphasize that the stage of nutrition transition in the country of origin may be an important contextual factor shaping post-migration dietary behavior, suggesting that public health interventions should be designed to account for both pre- and post-migration factors. By documenting participants' experiences and examining the factors that may shape dietary change, this study contributes to a more comprehensive understanding of dietary adaptation among Arab Muslim immigrant families in Canada.

5. Methodological Reflection

The methodological experience of this study provided insights into how a qualitative phenomenologically informed study was used to capture participants' lived experiences and the meanings they attached to dietary practices. In the case of Arab Muslim dietary acculturation in Canada, limited qualitative research has examined participants' lived experiences of dietary change. The findings from this study highlighted the importance of examining the participants' experiences of dietary acculturation in the Canadian context as a distinct phenomenon. Thus, a phenomenologically informed study was useful for understanding how participants perceive a particular phenomenon or experience in their lives. This approach provided insight into how participants experience and make meaning of dietary changes within their new cultural context.

Data was collected using face-to-face semi-structured interviews conducted in the participants' native language to reach them in a nuanced, authentic expression. The interviews provided access to participants' lived experiences by allowing them to describe their dietary practices, changes, and decision-making processes in their own words and in their everyday contexts. Conducting interviews in Arabic supported culturally situated discussion of food practices, family roles, religious considerations, and everyday dietary decisions.

Because the interviews were conducted in Arabic and the findings were analyzed and reported in English, attention was given to preserving culturally specific meanings related to food, religion, migration, and family life during translation and interpretation. The experience of translating the interviews highlighted the importance of carefully considering culturally specific meanings during the interpretation of participants' accounts. The analysis then moved from participants' descriptions to inductive coding of recurring meanings and experiences, including accessibility, availability, affordability, and adaptation to the Canadian food environment.

These codes were examined for patterns and connections and developed into themes that represented common and context-specific aspects of participants' experiences. The phenomenologically informed orientation therefore informed not only the choice of interviews but also the interpretation of participants' accounts, with attention to how dietary changes were experienced and understood, rather than only to the frequency or occurrence of particular behaviors. The MAAS data was used descriptively to set the context and ensure that the qualitative approach remained primary. This allowed the descriptive acculturation information to complement, rather than replace or quantify, the qualitative accounts of lived experience. Purposeful sampling of immigrant mothers of school-aged children was used to capture the variation and depth of family dietary experiences.

This study sought depth of experience rather than statistical representation. The lead researcher used reflexive memoing to recognize and consider assumptions, complemented by peer review and follow-up communication with three participants to clarify information from their interviews and obtain additional information where needed (Groenewald, 2004; Patton, 2002). This process highlighted the importance of recognizing assumptions about culturally familiar food practices and dietary change during interpretation. Follow-up communication with three participants was used to clarify their accounts and obtain additional information where needed, rather than to formally validate the final themes. Follow-up communication via phone, WhatsApp, or text message was used for this purpose. These clarifications were considered during the interpretation of the participants' accounts and the development of themes.

Methodological quality was supported through coherence between phenomenologically informed orientation, research questions, data collection, and inductive analysis. The experience of conducting and analyzing the interviews reinforced the importance of maintaining coherence between the phenomenologically informed orientation, research questions, data collection, and inductive analysis. Reflexive memoing was used to identify and consider researcher assumptions throughout the analytic process (Patton, 2002). Transparency was supported by documenting the progression from participants' accounts to meaning units, codes, themes, and interpretive statements, with NVivo used to organize and document these analytic decisions.

Attention to the depth and context of participants' accounts, together with the use of participant excerpts to support interpretive claims, helped maintain a clear connection between the data and the findings. Peer review and follow-up communication with participants further supported the credibility of the interpretations.

Thus, quality was understood not as a checklist of procedures, but as maintaining methodological coherence, reflexivity, transparency, and a credible connection between participants' lived experiences and the interpretations presented. The phenomenologically informed orientation guided attention to participants' lived experiences and the meanings they attached to dietary change. The analysis focused on identifying recurring meanings and patterns in participants' accounts rather than quantifying the occurrence of particular behaviors.

An important limitation identified through the research process was the reliance on participants' retrospective accounts of their food choices before immigration. Asking people to go back in time before immigration and talk about their food choices before coming to Canada might impact the accuracy of the information provided. This may have affected the accuracy of comparisons between pre- and post-migration dietary experiences. In addition, the geographic scope of the sample could be a limitation in generalizing the study findings; a broader geographic scope could generate new themes and different findings.

The differences observed among participants from different countries of origin also suggest that a broader geographic scope could provide additional perspectives on dietary adaptation. Quantitative approaches may complement these qualitative findings by addressing different questions, such as examining the prevalence or distribution of dietary and acculturation patterns in larger and more diverse populations. They would provide complementary evidence rather than confirm or replace the lived experiences explored in this study.

Overall, this study highlights the methodological value of culturally situated interviewing, careful attention to cross-language meaning, reflexivity, and descriptive contextual information when conducting qualitative research on migration and culturally sensitive food practices. This study offers several transferable methodological lessons for qualitative researchers working with culturally and linguistically diverse populations. Conducting interviews in participants' preferred language can support richer expression of culturally situated experiences, while translation requires careful attention to culturally embedded meanings. Descriptive contextual information, such as acculturation data, can complement phenomenologically informed interviews without generating themes or converting the study into a mixed-methods design. Reflexive memoing can also help researchers recognize and consider their assumptions when interpreting culturally sensitive experiences (Patton, 2002).

6. Conclusion

This study provides insights into the public health impact of dietary changes among Arab Muslim immigrants in Canada. The results suggest that both the Canadian food environment and the stage of nutrition transition in their countries of origin may influence dietary changes post-migration. As Arab Muslim immigrants to Canada acculturate, they may try to balance the maintenance of their traditional dietary habits with an openness to Western foods, although some individuals resist the Western influence more than others do.

For residents of Gulf countries, where Western diets are already common, the impact of moving to Canada on diet quality was also mixed.

Overall, the present findings demonstrate that dietary adaptation may involve both healthier and less healthy changes following migration. Considering the increasing immigration of Arab Muslims into Canada, this study is relevant for improving our understanding of the process of food acculturation and how smoother transitions might be facilitated. Food can act as a marker of acculturation for Arab Canadians and represent social cohesion in Canada.

This study suggests that considering the stage of dietary transition in the country of origin may be useful when providing dietary information to immigrant populations. This consideration is especially relevant in the context of the public health impact of dietary transitions among immigrants. For Muslim immigrants, the need to read nutrition labels provide an opportunity to be aware of the healthiness of the food they consume. This culturally driven behavior may be considered an entry point for delivering public health nutrition messages in a meaningful and effective manner. Nonetheless, many Arab Muslim immigrants are still arriving in Canada and are making efforts to acculturate to their new host country. One of the main aspects of this acculturation is dietary, whereby immigrants often change their diets for several reasons when they move to a new country.

Ethical Approval: This study explored dietary transition among Arab Muslim immigrants. The study was reviewed and received ethical clearance from the University of Waterloo Office of Research Ethics (Approval Number: REB#30805). The study was conducted in accordance with the Declaration of Helsinki. All participants provided written informed consent before participating in the study, and their rights, well-being, and confidentiality were protected throughout the research process.

Informed Consent: Written informed consent was obtained from all participants before the study. Participants were informed of the study's purpose, procedures, risks, and benefits, and their participation was voluntary and anonymous.

Declaration of Conflicts of Interest: The authors declare that there are no conflicts of interest regarding the research, authorship, and/or publication of this article. The material has not been published, in whole or in part, elsewhere and is not currently under consideration for publication in any other journal. All authors were personally and actively involved in the work that led to this article and take responsibility for its content. All ethical standards regarding the protection of study participants were met, in accordance with the World Medical Association's Declaration of Helsinki.

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Rana Al Jaroudi

Health Management Department, Batterjee Medical College, Saudi Arabia

 <https://orcid.org/0009-0002-4625-1174>

✉ rana.aljaroudi@bmc.edu.sa