

**A Phenomenological Inquiry: The Impact of the Process of Dietary Acculturation
and the Nutritional Discourse in Canada on Female Immigrants with Type II
diabetes**

Thesis submitted to the Faculty of Graduate and Postdoctoral Studies in partial fulfillment of
the requirement for the Master of Arts degree in Communication

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ABSTRACT

Nutritional communication research helps with public health promotion, government dietary intervention and future outlooks for the dietetics profession. This research explores the way health professionals target niche population groups to educate on nutrition. The phenomenological methodology and the Communication Accommodation theory framework guided interviews with 10 Arab-speaking females diagnosed with type II diabetes or prediabetes. The findings reveal eight major underlying themes: language, socio-economic impact, level of integration/adaption to new environment, role of religion in life, health is a personal responsibility, role of family/specific family members, role of health professional and views on the Canadian food/culture. Ultimately, dietary acculturation of the sample group is influenced by level of English language proficiency, health literacy, exposure to health information and cultural values.

Keywords: nutritional communication, communication accommodation theory, health literacy, Arab-speaking females, type II diabetes, and dietary acculturation

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Chapter 1: Introduction

Type II diabetes and immigrant groups in Canada

Canada's long history of immigration and diversity results in a constant negotiation of cultures and traditions. The values of various cultures and traditions in Canada are celebrated under the Canadian Multiculturalism Act. In the year 1988, Brian Mulroney's progressive conservative government passed the Canadian Multiculturalism Act to "promote the full and equitable participation of individuals and communities of all origins in the continuing evolution and shaping of all aspects of Canadian society" (Burnet & Driedger, 2011, p.2). As a result, Canadian immigrants are often encouraged to retain their cultural identity and distinct lifestyle practices. Keeping one's cultural identity becomes especially challenging when immigrant groups are faced with cultural expectations from the majority culture. Dealing with a chronic illness is one difficulty immigrant groups face when moving to a new country.

When it comes to diabetes, the economic costs are considered in two categories: direct and indirect costs. The direct costs of diabetes are linked to healthcare paid through public/private health insurance. Indirect costs are associated with the impact on the economy and productivity of individuals due to sickness, disability or premature death (Public health Agency of Canada, 2011). According to the Ontario Diabetes Cost Model formulated by the Canadian Diabetes Association, "1,169,000 people in Ontario have been diagnosed with either type I or type II diabetes in 2010 – representing approximately 8.3% of the population. This number is expected to increase by 734,000 over the next decade to 1,903,000 or 11.9% of the population" (Canadian Diabetes Association, 2009, p. 2) (Appendix A). A study on the projection of diabetes mellitus prevalence from 2006 to 2016 estimates that "the number of individuals with diabetes in

the general population in Canada will increase from approximately 1.4 million patients in 2000 to 2.4 million patients in 2016” (Ohinmaa, Jacobs, Simpson, & Johnson, 2004).

This in turn causes an increase in the healthcare costs of diabetes from \$4.66 billion in 2000 to an estimated \$8.14 billion in 2016 (Ohinmaa et al., 2004).

Previous research on type II diabetes distribution among immigrants in Ontario reveals a higher incidence of the condition in certain ethno-racial groups, those of lower socioeconomic status and a possible connection between socioeconomic status and gender (Creatore, 2013). Furthermore, movement to more urbanized environments results to lifestyle changes for immigrant groups. Life in a new environment is often linked to the development of obesity-related chronic illnesses such as type II diabetes (Creatore, 2013). The ‘healthy immigrant effect’ indicates that immigrants tend to be healthier than those born in Canada upon arrival to the country (Sanou, O’reilly, Ngnie-Teta, Batal, Mondain, Andrew, Newbold, Bourgeault, 2013). This health advantage is associated with the legal selection process, which ensures only healthy immigrants entry to Canada. However, immigrants are documented to lose their health status with changes in physical activity and eating patterns in Canada (Sanou et al., 2013). The deterioration of an immigrant’s health in a new setting is often associated with changes in food availability and nutritional intake in a new host country. Therefore, this study aims to investigate further the challenges that contribute to the inability for immigrant women with type II diabetes to lead a healthy lifestyle.

Type II diabetes and gender

In the context of this research, to understand the factors that influence this sample group’s changing dietary habits, it is necessary to look into the connection between gender and dietary practices. Research points to the importance of understanding gender-

specific differences of type II diabetes due to the self-management nature of diabetes care (Tenzer-Iglesias, 2014). Mathew, Gucciardi, De Melo, and Barata (2012) conducted a qualitative study to look at gender-specific type II diabetes self-management experiences. The differences of self-management experiences are linked to differences in beliefs, attitudes, fears and concerns (Mathew et al., 2012). An assessment of literature on the subject reflects females tend to experience a higher degree of fear due to loss of health, diabetes morbidity, and early mortality (Mathew et al., 2012). In addition, females are reported to have a greater degree of depressive symptoms, which affects their participation in diabetes education and keeping up a medication regimen (Mathew et al., 2012). Furthermore, not only are the differences between males and females related to fears, but also there are differences in the perspective of the disease impact. Males with type II diabetes are often concerned with the way the disease management might affect their role as a family provider, while females are more anxious about the way self-care could affect their familial responsibilities (Mathew et al., 2012). These responsibilities cause females to favor the family's food preferences over their health-related dietary needs (Mathew et al., 2012). Despite the existence of literature on the differing concerns of type II diabetes management by males and females, there is a lack of literature on the barriers or challenges of type II diabetes management (Mathew et al., 2012). Based on focus groups conducted by Mathew et al. (2012), male and female experiences of type II diabetes management are documented under themes like self-monitoring practices, diet struggles, social support, and use of diabetes resources. General differences between the two groups are associated with dietary practices and reliance on social support. Females were more willing than males to talk about their disease as though it was part of their identity (Mathew et al., 2012). In addition, females demonstrated a greater struggle with

monitoring foods consumed than the males did in the study. The responses of female participants reflect a sense of guilt likened to “cheating” when foods high in sugar are consumed (Mathew et al., 2012). Male participants admitted to struggling with food restrictions and moderation, but for female participants this inability to restrict favorite foods played a bigger role in their self-care behavior (Mathew et al., 2012). Furthermore, for social support during type II diabetes self-care males and females reflected contrasting responses. For females, other females and wider community networks prove to provide a sense of sustenance, yet males were less likely to talk to people other than their significant other (Mathew et al., 2012). An awareness of these underlying gender differences in type II diabetes self-management enables health professionals to tailor medical advice for type II diabetes patients. Also, gender-sensitive self-management practices allow for significant and relevant medical intervention and type II diabetes management campaigns that are multi-layered and targeted (Mathew et al., 2012). In addition to gender differences in self-management of type II diabetes, it is necessary to consider other factors such as cultural identification, monetary limitations, or adaptation processes.

Culture, female roles and food consumption

Prior to addressing literature on the way health is viewed in the Arab culture, it is necessary to point out the symbolic nature of food. Often for immigrant communities, food is considered a form of identity and a mechanism to remain in touch with ethnic identity (Vallianatos & Raine, 2008). For many immigrant communities, the loss of food practices is equivalent to abandonment of community, family, and religion (Vallianatos & Raine, 2008). Furthermore, often people who identify with an ethnic group tend to consider norms, habits and traditions of this culture as the means to set themselves apart

from other ethnic groups (Carrus, Nenci, & Caddeo 2009). Therefore, food for immigrant communities carries a greater meaning than strictly a biological fuel for the body to become satiated and nourished. According to Carrus et al. (2009):

Ethnic foods are often viewed as particularly fit to satisfy consumer's demands for their high quality and their supposed authentic linkage with the culture of reference. Therefore, what people eat can become a symbol of who they are, as consumers symbolically use food products to define their relations to other people, to their group of reference, and to their social reality in general. (p. 66).

Due to the symbolic nature of food, it is necessary to consider the influence food choices have on the dietary practices of Arab immigrants. In addition, literature points out the role females play in "conserving" ethnic identity through ethnic food consumption and food practices.

Valliantos and Raine (2008) highlight the importance of the female "gendered role" as a gatekeeper and food provider for the family. Based on a study of Arab and South Asian ethnicities, immigrant women experience key underlying commonalities after moving to Canada. The majority of women report the need to emphasize their roles as mothers and wives in the face of relocation to Canada which results in a shift of focus from the extended family to the nuclear family especially in smaller Canadian cities (Valliantos & Raine, 2008). This challenges food choices, food preferences, food preparation techniques and the role of the female. In the context of nutrition marketing, the cultural influences of consumers are important indicators of food choices. Consumers are considered to belong to either higher-context or lower-context cultures (Wansink, 2007). Based on these associations, people's perspective on food consumption is considered either hedonistic or utilitarian (Wansink, 2007). Cultures that fall under the utilitarian perspective emphasize functional aspects of food, simplicity of cultural foods and dishes, practicality in food consumption, and focus on the nutritional benefits of

foods such as energy and calories (Wansink, 2007). On the other hand, cultures with a hedonistic perception place a higher emphasis on the taste of food, cultural eating practices, and complexity of cultural foods (Wansink, 2007). Upon migration to new cultural contexts, immigrants often negotiate these perceptions on food consumption with their own cultural food practices. One of which is the changing socioeconomic context, which results in new financial difficulties for immigrant families. As a result, immigrant women find themselves faced with linguistic, cultural, and financial obstacles that result in readjustments of dietary choices and shopping strategies (Valliantos & Raine, 2008).

Theories of Dietary acculturation and Communication Accommodation Theory

Previous studies that have examined the role culture plays on nutrition communication are often from the perspective of ‘dietary acculturation’. Also, ‘the healthy immigrant effect’ concept is often examined when looking at the influence of migration on dietary habits of immigrant groups. This present study examines the influence of language, ethnicity and culture on dietary practices of a population group living with a chronic illness. Therefore, it is important to further explore concepts of ‘dietary acculturation’ and ‘the healthy immigrant effect’ to understand the theoretical context within which this study is embedded.

Healthy immigrant effect and dietary acculturation

The phenomenon known as ‘dietary acculturation’ involves immigrants’ adoption of the nutritional practices in a new host country (Sanou et al., 2013). The term comes from the anthropological concept of acculturation known as the process that involves a racial/ethnic group—often a minority—taking up the lifestyle patterns of a dominant group (Satia, 2010). Even though dietary acculturation is focused only on nutritional changes, it is not a simple linear process in which immigrants move from traditional diets

to “acculturated” dietary practices (Satia, 2010). Immigrants often undergo a process of dietary negotiation where traditional foods are often preserved or prepared in new ways (Satia, 2010). Also, immigrants tend to go through a process of selection where traditional foods and new host country foods are combined. For instance, Asian immigrants keep rice in their diet since it is considered the most important staple food, but they replace other traditional foods with cereal, sandwiches, and milk (Satia, 2010).

Despite the ability to keep traditional foods in new diets, the process of dietary acculturation does not bode positively for immigrant groups. Studies show that dietary acculturation causes detrimental effects on the diets of immigrants and racial/ethnic minorities with an increase in the risk of chronic disease development (Satia, 2010). In a scoping review of research on immigrant nutritional health, Sanou et al. (2013) point to the disparity of contextual information that could help in the development of appropriate health promotion practices and interventions for immigrant groups in Canada. Their assessment of present literature on immigrant nutritional health shows there is an increase of data on the health transition of individuals who immigrate to Canada. However, there is little known about the factors that cause nutritional transitions for immigrant groups and the extent of such changes (Sanou et al., 2013). Based on a compilation of sources, Satia (2010) proposes a summary of factors and or attributes that influence the process of dietary acculturation (Table 1). Accordingly, present literature groups the influencers of dietary acculturation as demographic, social/economic, ethnocultural norms, and exposure to host culture (Satia, 2010; Vallianatos & Raine, 2008; Ristovski-Slijepcevic, Chapman, & Beagon, 2007). Therefore, factors like an individual’s gender, living situation, health beliefs, and access to traditional media/community/supermarkets all affect the experience of dietary acculturation (Satia, 2010). As a result, research on the

lived experiences of dietary acculturation of an immigrant group needs to encompass factors such as socioeconomic impacts, health belief, and traditional worldviews. Cultural diversity is associated with the existence of various cultures and cultural perspectives in one society resulting in a space for the negotiation of dialogues (Parekh, 2002). Because Canada is a culturally diverse society, research results on dietary acculturation cannot be generalized and standardized for all immigrant subgroups. Furthermore, studies reveal immigrant groups could face difficulty in dietary planning since most ethnic foods do not reveal nutritional values (Sanou et al., 2013). This is challenging because Canada's Food Guide is considered the national reference for dietary planning, and without nutritional values immigrant groups have no ability to measure ethnic foods in comparison to the national dietary measure (Sanou et al., 2013). As a result of the lack of nutritional labeling on ethnic foods, immigrants often rely on sources such as ethnic media or social groups (Sanou et al., 2013). Immigrants do not only deal with ambiguous or inexistent nutritional labeling, but also the experience of grocery shopping and food preparation is a challenge for immigrant groups (Sanou et al., 2013). Consequently, most literature on dietary acculturation highlights the need for culturally appropriate methods of nutrition education for immigrant groups at community and healthcare settings to guarantee health equity for all population groups in Canada (Sanou et al., 2013).

Communication Accommodation theory and Central research questions

Prior to outlining the research questions that guide this present study, it is important to introduce the theory that aids in formulating these questions and define terminology. Giles, Coupland and Coupland (1991) define the two levels in which Communication Accommodation theory (CAT) can be applied:

At one level, accommodation is to be seen as a multiply organized and contextually complex set of alternatives, ubiquitously available to communicators in face to face talk...at another level accommodation strategies can characterize wholesale realignments of patterns of code or language selection, although again related to constellations of underlying beliefs, attitudes and sociostructural conditions. (pg. 2).

This description captures the multi-layered nature of the theory which not only looks at the process of communicative negotiation in a conversational setting, but also points to the subtle social conditions that influence communication practices. The social conditions referred to in this paper are the host country's nutritional discourse and nutritional narrative.

The inclusive nature of CAT enables an exploration of the following central research question and follow up question: *how do Arab-speaking female immigrants in Ottawa negotiate traditional food and food preparation narratives in light of the nutritional discourse in Canada? and how does this population group experience the process of dietary acculturation and cope with a chronic illness, namely type II diabetes?*

Since the research questions guiding this study are based on "lived" experiences and perceptions of a sample group, the phenomenological research method is applied in this study. A phenomenological study attempts to "capture the common underlying essence and meaning of a phenomenon or experience shared by several individuals" (Creswell, 2013, p.76). This qualitative method is suitable for this study due to the ability to retrieve in-depth information on first-hand experiences of the sample group. In addition, the self-reflective nature of the phenomenological approach is suitable due to the researcher's cultural identification with Arab-speaking females. Self-reflection in phenomenological analysis is a process that begins prior to data collection when the

researcher beings to analyze his or her own lived experience of the phenomena (Eberle, 2014). This reflexive quality of phenomenology helps with exploration of the research questions that are entirely reliant on personal accounts.

Nutritional discourse and narrative

For the purpose of clarity, the terms “nutritional discourse” and “narrative” used in the research questions need to be addressed and defined. In the Foucauldian tradition, discourse refers to “sets of statements” that play a role in negotiating power relations based on the meanings associated with the objects and subjects of reference (Given, 2008). Therefore, discourses are “systems of meaning” that are formed as a result of the various societal infrastructures and the power relations embedded within interactions (Hook, 2001). As emphasized by Foucault, it is necessary to avoid looking at the concept of discourse strictly as “narratives, forms of representation, language, or text alone” (Hook, 2001, p.16). In this paper, the term “nutritional discourse” refers to all the contending perspectives on nutrition disseminated to the Canadian population in the form of government health campaigns, advertisements, and any apparatus of nutrition measurement or guideline set out to “educate” Canadians on healthy living. Of particular relevance to the way government communicates nutrition to the public is Foucault’s concept of “governmentality” which is an:

Ensemble formed by the institutions, procedures, analyses, and reflections, the calculations and tactics that allow the exercise of this very specific albeit complex form of power, which has as its target population, as its principal form of knowledge political economy, and as its essential technical means apparatuses of security (p. 103).

Here the complex system of power reinforcement through “governmentality” provides a lens through which nutritional communication is practiced by the Canadian government and the way in which Canadians interact with this discourse. In the next chapter, the

workings of “governmentality” are explored by reviewing literature that captures the different forms of public nutrition communication and the various ways in which Canadians negotiate nutrition information. Foucault’s concept of governmentality refines the previous Foucauldian view of the individual as docile to instances where individuals have to ability to negotiate domination and coercion (Lemke, 2002).

Structure of the thesis

The following chapter will be dedicated to a thorough review of current literature related to nutrition and Canadian immigrants. The review is organized into various sections beginning with an examination of the social representation of type II diabetes, an assessment of the healthy immigrant effect, and a look into the food cultures of Arab-speaking females. Then the nutritional discourse in Canada is explored with a section dedicated to online nutritional communication practices. The discussion then leads to the role of media for the sample group and ends with an exploration of the conceptual framework that guides this research.

The third chapter will briefly discuss the use of the phenomenological method to carry out the current research study. The advantages and disadvantages of this method in relation to the current study will be discussed in the section. The data collection and data analysis procedures for this research will be detailed based on the phenomenological method.

The fourth chapter will present findings after rigorous data analysis. The chapter will demonstrate the way the findings reflect the research problem and answer the research questions.

Chapter five will be dedicated to a discussion that involves interpreting the research findings and discussing their implications for the field of communication and health communication.

Finally, chapter six will summarize the study and present some conclusions and recommendations. It will also discuss the limitations of the study and directions for future research in the field of nutrition communication.

Chapter Summary

This introductory chapter established the topic of this research to bring focus to the experience of immigrants living with type II diabetes in a new environment namely Canada. This chapter touched on the factors that impact the experience of the sample group under research, such as gender. The impact of female roles on food consumption and food cultures was also covered. In addition, the theories of dietary acculturation, communication accommodation theory and the healthy immigrant effect were discussed and linked to this study's research questions. In next chapter, the researcher will review literature on society's perception of type II diabetes, the healthy immigrant effect notion and its connection to immigration and nutrition, Arab-speaking food cultures, the Canadian nutritional discourse and the role of online nutrition.

Chapter 2: Literature Review

The review in this chapter delineates literature on the way type II diabetes is perceived as a disease in our society. Next, scholar's understanding of the healthy immigrant effect is discussed in connection to immigration and nutrition. Subsequently, the food cultures of Arab-speaking immigrants are considered with an emphasis on their impact on ethnic identity. To follow, research on the nutritional discourse in Canada is assessed. In addition, the role of online nutrition is discussed with a look into the role of media for the sample group. Finally, the conceptual framework of the current research is investigated ending with a section on the rationale behind this study.

Type II Diabetes as a disease (social representation)

Type II diabetes is often synonymous with leading an unhealthy lifestyle and making poor diet decisions. Schabert, Browne, Mosely, and Speight (2013) pointed out the importance of considering health-related stigma connected to type II diabetes and other chronic conditions for policy-making. For them, research on stigma could be divided into three categories: social psychological, sociological, or interactionist (Schabert et al., 2013). In order to understand the way society stigmatizes a chronic illness it is important to define the three categories of social stigma. Social psychological forms of stigma are based on attributes associated with characteristics or stereotypes that are considered undesirable based on appearance, behavior or group membership (Schabert et al., 2013). Sociological research on stigma is a consideration of the conditions that bring about and result in the formation of social psychological forms of stigma (Schabert et al., 2013). Therefore, sociological research on stigma is less concerned with the characteristics of stigma but the circumstantial formation of those characteristics. The interactionist perspective on stigma blends both the social

psychological characteristics of stigma and the sociological conditions that form social stigma (Schabert et al., 2013).

When considering the stigmatization of individuals with type II diabetes it is important to consider all social psychological characteristics, such as ethnicity, language, gender, age, and financial status, which impact the way individuals interact with their categorization as diabetics. In fact, Hindhede (2014) considers the process of categorization even prior to the diagnosis of the individual as diabetic. Often as a process of risk management health professionals screen patients and categorize them as prediabetic based on predetermined criteria. This process known as ‘screening’ is defined as an “organized activity designed to reduce mortality and morbidity of population groups by targeting those at higher risk of selected conditions” (Heyman, 2010, p. 1). Therefore, individuals are exposed to vocabulary associated with being a part of a stigmatized group even prior to being diagnosed with the chronic illness. However, as Hindhede (2014) points out often this prediabetic screening process does not achieve the intended results due to a lack of understanding of the severity of type II diabetes and the impracticality of the screening strategy (Hindhede, 2014). The lack of urgency experienced by high-risk individuals is perhaps due to the generalized approach of the prediabetic categorization screening process. Health promotion literature demonstrates the usefulness of individualized lifestyle intervention when it comes to a chronic illness like type II diabetes (Hindhede, 2014). Thus, researchers of type II diabetes health interventions need to take into consideration all the various elements in an individual’s life that may impact the effectiveness of type II diabetes campaigning.

Hindhede (2014) explore Bourdieu’s notion of *habitus* and its impact on lifestyle choices made by diabetics. Therefore Hindhede’s (2014) study takes into account the way

individuals view their lifestyle in comparison to their categorization as high-risk. The study's assessment was achieved via a series of individualized interviews with patients categorized as prediabetic based on predetermined screening criteria. Hindhede's (2014) concern lies in the way 'at-risk' categorization functions as a way to create social order and instill generalizations related to type II diabetes. As a result, individuals categorized as prediabetic begin to behave within the constraints of those assumptions and generalizations rather than consider this new categorization as a form of warning sign to the onset of type II diabetes (Hindhede, 2014). The behavior of individuals categorized as prediabetic becomes highly influenced by their new group membership. This categorization as discussed earlier makes individuals in this group easily stigmatized due to generalization and assumptions associated to their new categorization. Hence, 'at-risk' categorization as a health intervention strategy must be evaluated based on these behavioral determiners. When it comes to intervention strategies, researchers often suggest against group categorization.

Sousa, Zauszniewski, Musil, Lea, and Davis (2005) examine whether diabetes management is a process impacted by self-care agency and self-efficacy (Sousa et al, 2005). The purpose of their study was to look at the correlation between beliefs and capabilities of diabetes self-care and glycermic control (Sousa et al., 2005). The findings suggest individuals need to pair self-care efficacy with self-care activities to have glycermic control (Sousa et al., 2005). Therefore, nurses and other health professionals need to uncover the factors that influence individual's decision to perform diabetes self-care activities (Sousa et al., 2005). An unexpected finding by Sousa et al (2005) correlates race and ethnicity with the performance of self-care activities. Even though Sousa et al. (2005) study was not to look at racial differences with self-care activities, the

results of the study show the existence of racial differences in health outcomes. Like other similar studies on the racial disparity of diabetes management, their results demonstrate that participants of African American descent have less control over self-care agency and have less glycemic control than other races (Sousa et al., 2005; Shai et al., 2006; Gumbs, 2012). Therefore, race and ethnicity must be taken into consideration in any research on diabetes management and individual's self-care behaviors.

In addition, Serrano-Gil and Jacob (2010) propose that a gap in knowledge, attitude, and practice of diabetes management is a barrier to dealing with the prevalence of the disease. Their research suggests that the traditional approach to type II diabetes management does not encourage diabetes patients to practice beneficial self-management (Serrano-Gil & Jacob, 2010). They propose an empowerment approach to diabetes management based on a change of attitude. Serrano-Gil & Jacob (2010) suggest that a lack of patient-centered self-management activities results in a knowledge, attitude and practice gap in diabetes management. A shift to an approach in which the patient becomes "informed and activated," and care-giving teams become "prepared and proactive" would aid in a shift of attitude towards diabetes management. This attitude adjustment entails health professionals to consider their role more as advisors and supporters to patients and their families rather than judges (Serrano-Gil & Jacob, 2010). Hence, the patient becomes the key to self-care lifestyle changes not the health professional. This empowerment approach emphasizes individualized self-management relationships between the health professional, patient and the patient's family (Serrano-Gil & Jacob, 2010). This implies a need for type II diabetes intervention to be tailored to fit a wide variety of influencers that affect type II diabetes patients' self-care behaviors. Therefore, patients need to be treated on an individual basis with more research related to

ways health professionals could be made more mindful of each patient's distinctive experience of type II diabetes management.

Immigrants and nutrition

The vast majority of research on immigrants and dietary nutrition takes into consideration the 'healthy immigrant effect' notion. According to Sanou et al., (2014), the 'healthy immigrant effect' "refers to the fact that immigrants tend to be healthier than the Canadian-born population when they first arrive in the country due to the selection effect of immigrants" (pg. 25). Therefore, embedded in the discourse of nutrition and immigrants to Canada is the belief that most immigrants have good health conditions upon arrival to the country. Research suggests the process of acculturation not only involves significant changes in diet and physical activity, but also an increase in the risk of obesity across generations (Sanou et al., 2014). Therefore, it is necessary to consider acculturation in any literature related to dietary patterns of immigrants in a new environment. Based on present literature there is a focus on showing that immigrants experience deterioration in health when residing in Canada, but not much research links acculturation and dietary changes to the decrease of immigrants' health in Canada (Sanou et al., 2014). 2011 Statistics show between 2006 and 2011, around 1,162,900 foreign-born people immigrated to Canada. These recent immigrants made up 17.2% of the foreign-born population and 3.5% of the total population in Canada. (Chui & Flanders, 2011).

This rapid increase of the immigrant population coupled with a lack of research on diet and acculturation poses an increased need for health professionals to address specific immigrant dietary needs. An earlier study by Pomerleau (1995), examined the dietary intake and health status of immigrants and non-immigrants in Canada. Even though this

study was based on an inherent division of immigrants vs. non-immigrants in Canada. The results of the study highlight the need for “culturally sensitive” studies that take into consideration the differences of immigrant subgroups (Pomerleau, 1995). Recently, studies in nutritional communication are becoming more focused on specific immigrant subgroups. For instance, El Hassan and Hekmat (2012), conducted a study to explore the eating habits of Arab immigrants in the Greater Toronto Area to understand whether Arab immigrants preserve a traditional diet or substitute for a more Westernized diet upon immigration to Canada (El Hassan & Hekmat, 2012). The focus of their study was to measure the extent of dietary acculturation based on a clear polarized division between a traditional Arabic diet and a westernized diet. Another study conducted by Ristovski-Slijepcevic et al., (2007) features three “ethnocultural” groups: African Nova Scotians, Punjabi British Columbians and Canadian-born European Nova Scotians and British Columbians. The study used qualitative methodology to understand the ways people culturally make sense of “healthy eating” with a look at experiences, interpretations and reasoning associated with learning, accepting and/or rejecting information about healthy eating (Ristovski-Slijepcevic et al., 2007). Such studies can provide insights to help health professionals and government officials to work at creating a food guide representative of various cultural perspectives on healthy eating and the way different population groups in Canada engage with the generalized nutritional discourse.

Food cultures and Arab-speaking female immigrants

In order to better understand the target group under study, it is necessary to uncover the lifestyle habits that drive them to make certain food choices. Also, an understanding of the various preferences, needs and beliefs of immigrant groups enables healthcare providers to undergo more targeted dietary intervention plans (Lee & Huang,

2001). In food and nutrition literature, the term ‘dietary acculturation’ is often used to refer to the way members of a migrating group take up eating patterns and food choices in a new environment (Terragni, Garnweider, Pettersen, & Mosdol, 2014; Garnweidner, Terragni, Kjell Sverre, & Mosdøl, 2012). Since migrating groups come from a variety of cultural backgrounds and experiences, their process of dietary acculturation is often unique and contextual (Ristovski-Slijepcevic et al., 2007; El Hassan & Hekmat, 2012). In a study on migrant groups in Norway, researchers found various factors that influence dietary acculturation. For instance, a sense of unfamiliarity with grocery shops, a fear of religiously prohibited foods, and an uncertainty with meal preparation were all experienced by South Asian, Middle Eastern and African female migrants in Norway (Terragni et al., 2014). The term ‘food culture’ is often used in literature to refer to the “traditions, competencies, and skills belonging to a specific group in society” (as cited by Terragni et al., 2014, p. 275). The uncovering of a particular immigrant group’s food culture will ensure more successful dietary intervention with immigrant groups. The findings from Terragni et al. (2014) study in Norway suggests Muslim or Middle eastern immigrant women experience a sense of skepticism towards foreign foods especially foods considered *non-halal*.

Halal is an Arabic word, which refers to anything considered lawful or allowed under the Shari’ah law (Mohayidin & Kamarulzaman, 2014). When it comes to food, *halal* refers to all food prepared in accordance to the laws and practices of the Islamic religion (Mohayidin & Kamarulzaman, 2014). Therefore, *halal* is a restriction Muslims have to consider when choosing food products. This increased awareness in dietary consumption meant food labeling and packaging had to reflect consumers’ growing need for clarity (Mohayidin & Kamarulzaman, 2014). On that note, the ability to read labels to

decipher *halal* products from *non-halal* ones is necessary for immigrant consumers. An Ohio University food and consumer sciences' fact sheet sums up the eating habits of immigrants from the Middle East (Appendix B). Since this present research is focused on Arab-speaking women, insight on the eating patterns of Middle Eastern immigrants is helpful since the majority of Middle Eastern immigrants speak Arabic. In a comparison between food habits and the American food guidelines the university defined several categorizations (Appendix B).

Looking at the food culture of Arab-speaking Middle Eastern women with type II diabetes enables health professionals to individualize dietary intervention. Food preparation techniques of Middle Eastern people vary based on the type of food available. For instance, meat such as lamb meat is often roasted during big festive occasions (Nolan, 2009). Seasoning, spices and herbs are important for preparing dishes and the common ones include dill, garlic, cinnamon, oregano, parsley and pepper (Nolan, 2009). Also, olive oil is used to garnish dishes or in cold salads (Nolan, 2009). In a Canadian study, Vallianatos & Raine (2008) conduct interviews with Arabic and South Asian immigrant women to understand their experience of food choices and dietary habits in Edmonton, Alberta. For both cultures, the role of women is to responsibly ensure food restrictions are followed and the right foods are available for the family (Vallianatos & Raine, 2008). One factor these women dealt with was avoiding "eating out" and ensuring everything is made at home (Vallianatos & Raine, 2008). This emphasizes the importance of understanding the function the family unit and the role the husband plays in the way immigrant females interact with food in a new culture.

Gastro-politics

In a 1981 paper on the Hindu South Asian food environment, Arjun Appadurai introduces the concept of 'gastro-politics'. Generally, 'gastro-politics' is a "conflict or competition over specific cultural or economic resources as it emerges in social transactions around food" (Appadurai, 1981, p. 495). The term enables researchers to consider the way food can become a means in which culture can be negotiated. Also, Appadurai uses the term 'gastro-politics' to explain more individualized household dynamics by looking at a Tamil Brahmin household's food practices (Appadurai, 1981). At this level, gastro-politics is used to examine the way gender defines the role a household member plays in food interactions. For instance, the social precedence given to the male family member over a female despite the fact that the female is expected to prepare the food (Appadurai, 1981). Therefore, 'gastro-politics' is "not only about issues of rank, but is also a semiotic mode for enacting conflicts over roles" (Appadurai, 1981, p. 497). Gastro-politics aids in understanding the food practices of immigrant women and the impact dietary acculturation has on the role of the female. Vallianatos & Raine (2008) claim gastro-politics enables our understanding of the way immigrant females renegotiate their household roles when it comes to food practices.

For Arab women, the role of family cook and meal provider was a necessary component of their self-identity (Vallianatos & Raine, 2008). In Vallianatos & Raine's (2008) study, the Arab women felt this role in the household was often challenged by new external societal expectations. Arab female immigrants saw themselves as putting emphasis on the family as a priority while Canadian women make more time for themselves and do not prioritize the family (Vallianatos & Raine, 2008). Similarly to the gastro-politics of a Tamil Brahmin household, Arab and South Asian female immigrants

place great importance in learning the male's food preferences mainly the husband's preferences (Vallianatos & Raine, 2008). This is often considered a necessary feature of womanhood and a savvy quality of the female meal provider (Vallianatos & Raine, 2008; Appadurai, 1981). However, it is necessary to note that household gastro-politics related to gender roles often change for immigrants in a new host country.

Shifts in Immigrant household gastro-politics

In her study on Arab immigrants in the United States, Khatib (2013) emphasizes the vital role the extended family system plays in the Arab Muslim culture. In the Arab culture, it is common knowledge that “the family is a place of refuge that provides its members with security and reassurance in difficult situations” (Khatib, 2013, p. 8). In terms of Arab household gastro-politics, the extended family often places stress on male and female gender roles. Upon migration to a new host country, gender roles change due to the elimination of extended family pressures (Vallianatos & Raine, 2008). Despite feelings of loneliness and stress, Arab women claim a newfound freedom from gendered spaces post migration to Canada (Vallianatos & Raine, 2008). The nature of household gastro-politics is also influenced by shifts in socioeconomic status experienced when individuals migrate to a new country. In the study on Arab and South Asian immigrants, women reported they had a new role as those responsible for all the grocery shopping (Vallianatos & Raine, 2008). This often is in conflict with the gender role Arab women are socialized with when growing up. Typically, in the Arab culture men are considered the “heads of the household”, which means they control the majority of family finances and the behaviors of household members considered permissible (Khatib, 2013). This common male role is challenged when the female takes responsibility over the money spent on groceries. Often community members connect in new ethnic food spaces and

attempt to fill the void caused by leaving the extended family behind in the country of origin. Therefore ethnic grocery shops “may be a way of connecting with other immigrants, and through the familiar smells, sights and food products, connecting with home” (Vallianatos & Raine, 2008, p. 365). In other words, ethnic food stores become spaces of familiarity for immigrants to overcome the sense of estrangement experienced in a new host country.

Food culture as form of ethnic identity

Like most immigrants, Arab immigrants experience identity confusion, social inability, and anxiety when attempting to adapt to the new host country’s cultural practices (Khatib, 2013). Arab immigrants place great value on tradition and religion and these influence daily practices including food consumption and preparation (Vallianatos & Raine, 2008). For many immigrant women, the inability to find an ethnic food product is related to a new sense of isolation and foreignness in a new host country (Vallianatos & Raine, 2008). For instance, Arab immigrants in Edmonton translated the inability to find parsley as a threat to their Arab identity (Vallianatos & Raine, 2008). In a wide variety of research, food is considered a telling feature of a subgroup’s ethnic identity. Ethnic identity is often associated with the way individuals consume culture-specific products (Barkat et al., 2014). Therefore, it is beneficial in marketing research to understand the behaviors of a particular ethnic group in order to design relevant marketing campaigns.

Barkat et al, (2014)’s study on Arab Americans reveals the influence of socialization on the way Arab Americans consume culture-specific products such as food, dress, and entertainment. As noted in both American and Canadian literature on Arab immigrants, there is a lack of empirical research on ethnic subcultures and consumer

behavior (Barkat et al., 2014; Hassan & Hekmat, 2012). However, regardless of the context of research Arab ethnic identity is often tied closely to food and eating patterns (Hassan & Hekmat, 2012; Vallianatos & Raine, 2008). The results of a survey study on Arab American culture-specific consumption show Arab Americans highly value culture-specific food such as tea, pita bread, halal meat, baklava, eggplant, shawarma, kofta, falafel, or lentil soup (Barkat, et al., 2014). This survey includes responses from 230 adult Arab immigrants between the ages of 18-81 and suggests that socialization agents such as ethnic peers, friends, and parents influence ethnic identity behavior (Barkat et al., 2014). In addition, it proves that one's ethnic identity is dynamic and flexible based on external situational factors (Barkat et al., 2014; Garnweidner et al., 2012). Also, food as a source of ethnic identity is dependent on the availability and accessibility of particular food products (Garnweidner et al., 2012).

In their research on African and Asian female immigrants, Garnweidner et al, (2012) demonstrate the way female immigrants perceive their own food culture in contrast to Norway's food culture. This study is relevant due to the inclusion of participants from Arab-speaking countries like Algeria, Egypt, Iraq, Lebanon, and Morocco. The interview responses from this qualitative study prove that Arab immigrants constantly negotiate their own food culture and identity with that of the host country. However, all participants equally denied full adoption of the host country's food culture (Garnweidner et al., 2012). This is because participants considered continuity of the original food culture as an indication of ethnic identity (Garnweidner et al., 2012). These female immigrants fell into three categories: strict continuity, flexible continuity, or limited continuity of the original food culture (Garnweidner et al., 2012). Sometimes the context in the host country influences an individual's observance of a traditional diet.

Nicolaou et al.'s study on cultural and social influences on food consumption of Turkish and Moroccan immigrants in the Netherlands indicates:

Many young Turks and Moroccans feel excluded from mainstream Dutch society and have a tendency to socialize in their own ethnic groups. Within this context, the dual roles of food as a marker of identity and as a promoter of social cohesion may be reaffirmed (p. 239).

Therefore, without an understanding of immigrants' original food cultures, relevant dietary intervention is nearly impossible. For instance, religion defines the level of acculturation of Muslim immigrant groups. As demonstrated by Muslim Turkish and Moroccan immigrants, religion highlights the importance of hospitality and abundance of food during special occasions (Nicolaou et al., 2009). Also, religion imposes restrictions on foods common in the host food cultures such as the inability to eat *non-halal* foods and the prohibition of alcoholic beverages (Mohayidin & Kamarulzaman, 2014). This calls for more culturally sensitive and individualized dietary intervention of immigrant groups living in new environments.

Nutritional discourse in Canada (What it means to be healthy in Canada?)

Government nutritional communication

In order to better contextualize the current study, it is necessary to expand on the food culture of the host country. This is an attempt to help clarify the context in which immigrants negotiate their own food cultures. It is necessary to look at the manner in which the government communicates nutrition to the Canadian public and its effect on immigrants with chronic illnesses like diabetes will be explored. In 2004 the Canadian Community Health Survey gave an overview of the nutritional state of Canadians (Tarasuk, 2010). Overall, the results of the survey demonstrate the need for relevant health promotion to communicate healthy dietary practices (Tarasuk, 2010). Currently,

Canada's food guide by Health Canada is the federal government division responsible with providing a generalized foundation of healthy eating for the Canadian population (Tarasuk, 2010; Black & Billete, 2013). Therefore, Canada's Food guide is considered a generalized tool to educate Canadians on how to eat right and avoid chronic diseases. In most countries, food guides are designed to teach people to eat healthy through a hierarchical or circular diagram (Hess, Visschers, & Siegrist, 2012). Hess et al.'s (2012) study on food guides reveals the connection between food guide shape and its level of effectiveness and efficiency for the reader. Even though the study was mainly concerned with the readability of food guides, it reveals a connection between the effect of the food guide format and the way information is processed as significant for the reader (Hess et al., 2012). This study points to the importance of considering the way information is visually presented and processed by readers. In Canada, food safety and nutritional quality of food is viewed as the responsibility of Health Canada, a division of the federal government. In their renewal blueprint, Health Canada's Health Products and Food branch state,

Health Canada will design and implement a modern, efficient, and responsive food regulatory framework that protects and promotes human health, responds to emerging food safety and nutrition challenges, and minimizes unnecessary delays in bringing safe food and food products to the Canadian marketplace (Health Canada, 2008 p. 3).

This statement indicates the emphasis on Canadians' nutrition as a responsibility of the Canadian government. Health Canada has been the primary promoter of healthy eating to Canadians since 1942 during the wartime nutrition program (Bush & Kirkpatrick, 2003). Overtime the objective of health promotion shifted towards "increasing the number of Canadians who were at reduced risk of nutrition-related diseases and who have improved nutritional status" (Bush & Kirkpatrick, 2003, p. 23). Therefore, Health Canada became

concerned with promoting healthy eating to avoid chronic illness like cardiovascular disease and type II diabetes (Bush & Kirkpatrick, 2003). In an attempt to meet population needs based on new scientific evidence concerning diet and chronic disease prevention, many stakeholders suggest altering the food guide. However, most organization-specific guidelines ensure dietary guidelines that cater to the organizations' own commercial interests (Bush & Kirkpatrick, 2003).

In order to ensure unbiased nutritional recommendations, a Scientific Review Committee and a Communications/Implementations committee were appointed to create Canada's guidelines for healthy eating (Bush & Kirkpatrick, 2003). By consulting various professional bodies such as nutritionists, educators, and health professionals, the guidelines for healthy eating were based on the principles of scientific accuracy, positive tone, action-orientations, and a language level comprehensible by the majority of Canadians (Bush & Kirkpatrick, 2003). Despite the multi-sectoral and multidisciplinary nature of the process of developing food guidelines to reflect consumer needs, it is necessary to recognize the stakeholders' interests during the process.

Discrepancies in nutrition communication (nutrition marketing and food insecurity)

In an environment saturated with advertising and corporate interest, health promotion does not solely focus on consumer needs and interests. In addition to government health promotion, the public is exposed to a vast amount of nutritional data in the form of advertisements (Tarasuk, 2010). Often discrepancies in the communication of nutrition occur due to the various perspectives from which this information evolves. In his book "Marketing Nutrition", Wansink (2007) summarizes four varying perspectives in nutrition marketing: the dietitian, the government administrator, the marketing manager and the researcher. Based on these perspectives, consumers are relayed nutrition

information differently. For instance, the dietitian perspective assumes once people gain nutritional knowledge they become empowered (Wansink, 2007). Meanwhile, the marketing manager perspective views marketing nutrition akin to marketing any other product (Wansink, 2007). Therefore, making nutritional choices requires a critical examination of the perspective from which this nutritional product or information advances. In addition, the ability to make healthy food choices becomes complicated with more and more products bearing health claims (Tarasuk, 2010; Tarasuk et al., 2010).

The increased presence of health promoting food products is in connection to the Canadian consumer's increased interest in health products. Consumer research shows that Canadians are more likely to retrieve nutritional information from product labels and those who read product labels do so to find foods that claim health (Tarasuk, 2010; Tarasuk, Fitzpatrick, & Ward, 2010). In Canada, "nutrition information comes in different forms with a mandatory nutrition facts table (NFt), voluntary nutrient content claims, disease risk reduction health claims, and front-of-pack nutrition rating systems (FOPS)" (Schermel, Emrich, Arcand, Wong & L'Abbe, 2013, p. 666). The definition of the different types of information is elaborated in Table 2. It is important to consider the impact of food labeling for the Canadian consumer. According to a 2008 survey, Canadians retrieve 68% of nutritional information from food labels (Schermel et al., 2013). This heavy reliance on food labels for nutritional information is of concern to most health professionals who point to the discrepancy in the health claims of food products. For instance, Canadian health professionals urge the need for food labels to reflect sodium consumption as a factor that increases risk of chronic illness just as much as fat and cholesterol content (Schermel et al., 2013). Based on results of recent studies on nutrition marketing in Canada, there is a lack of consistency between health claims of

food labels and public health concerns. The majority of nutrition marketing in Canada is focused on total fats and trans fats in products rather than other nutrients such as saturated fat, sodium, and sugar which equally increase the risk of chronic illness (Schermel et al., 2013).

Another discrepancy of nutritional communication in Canada worth noting is food insecurity. Food insecurity is defined as the lack of sufficient access to healthy food (Rolfsen, 2014). In Canada, food insecurity is a significant barrier to healthy eating as documented by data from the CCHS (Tarasuk, 2010). In a food insecure household there is a lower rate of fruit, vegetable and milk product consumption in comparison to a food-secure household (Tarasuk, 2010). Therefore, government health promotion remains fruitless without consideration of the conditions that result in food insecurity. For instance, research proves there is inadequate retail access to affordable healthy foods and fresh fruits and vegetables in some parts of Canada (Tarasuk, 2010). The existence of discrepancies in nutrition marketing and the prevalence of food insecurity are two among many factors that influence nutritional communication in Canada.

Online nutritional communication (healthy eating discourse online)

Schermel et al. (2013) provide data that indicate the second highest source of nutritional information for Canadians is the Internet (51%). People nowadays wade through large amounts of information and as a result become skilled at applying their own filters when it comes to information online (Fernández-Celemín, & Jung, 2006). Therefore, it is necessary to consider the role the consumer plays in nutritional data retrieval online. This is especially important in the Canadian context where “two-thirds of Canadian households have at least one member who uses the Internet to search for medical or health-related information” (Ostry, Young & Hughes, 2007). This

demonstrates the importance of looking into the extent at which the Internet could influence decisions people make in terms of nutrition and health. Ostry et al., (2007) conducted a content analysis of internet-based sources to determine the quality of nutritional information Canadians are exposed to online and whether nutritional information aligned with advice from Canada's food guide. As stated by Ostry et al. (2007), it is particularly important to consider the quality of health information online "... given trends towards media globalization and the extent that many online health media editorial decision makers appear to be increasingly acting as purchasers of wholesale content from a heterogeneous mix of transnational information vendors" (Ostry et al., 2007, p. 649). Even though there are state initiatives at monitoring and ensuring there are standardized guidelines on being a healthy Canadians, online information is not always monitored for accuracy and relevance.

This exposure to a wide variety of information through various media outlets means Canadians are required to be media literate in order to effectively utilize advice from this plethora of media sources. Despite the lack of research in the area of nutrition information quality, a study on eight commonly used health sites— About.com, Canadian-Health-Network.ca, Doctissimo.fr, iVillage.com (health and diet channels), MSN.com (health channel), ServiceVie.com, WebMD.com and Yahoo.com (health channel)—by Canadians gives insight into the type and quality of nutrition information virtually available to Canadians (Ostry et al., 2007). For the purpose of their study the more congruent online content is with Canada's food guide, the better the nutritional information is to the reader (Ostry et al., 2007). Finding from their study and similar research suggest that commercial websites made up 80% of visits and time spent seeking health and nutrition information (Ostry et al., 2007; Macias, Lewis, & Smith, 2005).

However, the content from websites of designated health organizations surpassed commercial sites, such as About.com, iVillage.com, MSN.com and Yahoo.com, in terms of accuracy and congruency with Canada's Food Guide (Ostry et al., 2007). Unlike non-commercial sites that relied on reputable and scientific information, commercial sites like the ones listed above often produced their own nutritional advice or used data from industry-affiliated sites like the Dairy Producers of Canada (Ostry et al., 2007).

In this multi-layered nutrition information landscape, health literacy becomes especially important and necessary for information-seekers. Hoffman-Goetz, Donelle and Ahmed (2014) argue that the term health literacy cannot be defined without consideration of health communication and general literacy skills. Upon review of all the possibilities to defining health literacy, they divide health literacy terminology into two categories: medical/individual dimension and public/population dimension (Hoffman-Goetz et al., 2014). According to Hoffman-Goetz et al.,

The first dimension is associated with the ability to comprehend health information through reading, writing, listening, speaking, numeric and cultural knowledge; the second is linked to community and civic-level engagement with the social detriments of health (p. 25).

In other words, access to an abundance of health and nutrition information is not the only requisite for health literacy, but the ability to understand and filter through this information is necessary. Based on a review of literature on health education material, the reading difficulty of health-related material prepared for the general public is often above a high-school level (Hoffman-Goetz et al., 2014). Readability of health information becomes especially problematic when dealing with information-seekers who do not only face health literacy limitations, but also lack an understanding of the culture surrounding healthy eating (Hoffman-Goetz et al., 2014). Therefore, immigrants with low health

literacy often deal with conflicting expectations when government intervention is often geared at encouragement of immigrant subgroups to retain traditional healthy eating patterns, but at the same time adopting healthy practices of the new host country (Satia, 2010). For the purpose of this study, it is necessary to review the present literature on online nutritional communication with the media habits of this study's sample group.

Role of the media for the sample group (Arab-speaking women)

Overall, the majority of research on health information and the Internet point to age as an important factor for accessibility. According to 2009 Canadian statistics, 96.5% of regular Internet users are 34 years and under, with the numbers remaining fairly high with those between 34-54 (87.8%), and 55-65 (71%), but the percentage drops to 40% for those over 65 years old (Statistics Canada, 2009). Since this study's participants are between 25-55 years of age it is assumed that the Internet will likely have an influence on health-related behavior. Another factor that influences the nature of health information seeking online is gender. According to American statistics, women usually use the Internet for illnesses coping while men use the Internet to search information on sensitive health problems (Ybarra & Suman, 2008). Furthermore, while women tend to be more likely to seek health information most have negative views on computers and the Internet (Ybarra & Sunman, 2008).

In order to better contextualize this current study, it is necessary to expand on the media habits of Arab-speaking women. Furthermore, it is worth noting some underlying factors that could influence Arab-speaking women's decision to seek health information online. First, female illness in Arab countries is often associated with stigma and shame and it is often considered best to keep it silent (Hamdar, 2010). In addition, Islamic theology plays an important role for Muslim Arab-speaking women in the sense that

patience and resignation in the time of illness is encouraged (Hamdar, 2010). As a result, researchers claim Muslim women at times prefer to practice medical passivity rather than seek treatment for chronic illness (Hamdar, 2010). Cultural factors that encourage women to be silent about illness could become negligible when it comes to online health information seeking habits. The ability to remain anonymous and incognito online is a factor, which drives women to frequent health-related message boards mainly for health advice and support (Macias et al., 2005).

Therefore, the Internet is a space that allows female users to satisfy the need to both be separate and connected (Al Omoush, Yaseen & Alma'aitah, 2012). In a study on Arab's use of social networking sites, Al Omoush et al., (2012) highlight common differences between individualistic and collectivist cultures. Members of a collectivist culture are considered to be more cautious about online privacy and identity disclosure (Al Omoush et al., 2012). Research findings suggest that for Arab-speaking Facebook users, "...social networking sites have been able to neutralize the effect of some traditional cultural values, especially those governed by self-disclosure, power distance, and feelings of shame restricting the free social interaction, freedom of speech and expression, and satisfying the curiosity" (Al Omoush et al., 2012, p. 397). This ability to "neutralize" cultural values implies the possibility for Arab-speaking women to go beyond the expectations to remain passive when dealing with a chronic illness. Other research on computer-mediated communication examines the activities of Muslim women on networking sites with the purpose of connecting Muslim women worldwide. Research on the online community titled "Muslim Women Network" reveals that members are more active online when living away from Muslim communities due to a sense of familiarity found in the online community (Bastani, 2000). However, Muslim

female members of the online network reinstate the value of online anonymity in seeking information and advice from other members (Bastani, 2000). Most research on computer-mediated communication focuses on social networking sites, such as Facebook, suggests common themes of trust, identity and universality (Yaseen, Omoush, Saleh et al., 2013; Al Omoush et al., 2012). Trust in online health information varies based on age with younger adults seeking information regardless of level of trust and older adults being more critical of online content (Miller & Bell, 2012). From a cultural perspective, the ability to use social networking sites like Facebook to practice self-presentation and self-enhancement is translatable across cultures (Yaseen et al., 2013). The vast majority of literature on the social implications of social media and social networking sites points to the apparent mitigation of social and cultural diversity online (Yaseen et al., 2013). Even though present literature on computer-mediated behavior often focuses on age-related behaviors, it helps to explore the way cultural differences are expressed on social networking landscapes.

Conceptual Framework

In order to better situate the research problem for this present study, it is important to explore the theoretical perspective that frames this current study. Communication Accommodation theory (CAT) first came to use by Howard Giles in 1971 to explore the way we manage interpersonal communication through the choice of accents and dialects (Giles & Ogay, 2007). Therefore, CAT brings focus to the way behavioral communication impacts interpersonal communication. CAT “provides a wide-ranging framework aimed at predicting and explaining many of the adjustments individuals make to create, maintain, or decrease social distance in interactions” (Giles & Ogay, 2006, p. 325). Over the years Giles revised CAT, and the theory has been used to

explain various communicative behaviors (linguistic, paralinguistic, and nonverbal). In addition, the theory has been applied to a range of contexts to address workplace relations, intergroup interactions, intercultural relations, mass media communication practices, health clinics, and interpersonal interactions (Giles & Ogay, 2007). Hence, CAT can provide this study with a theoretical perspective that explores communication as a holistic process not only occurring linguistically, but in all its explicit and implicit forms. Especially applicable to this study is the concept of ‘intergroup’, which highlights the way interpersonal communication is defined conjointly by our personal identities and our social identities as members of certain groups (Giles & Ogay, 2007, p. 325). This proves useful to the multi-layered nature of the current study’s sample group whose communication behavior is shaped by age, gender and culture.

Convergence/Divergence

In order to further the discussion on CAT as a theoretical framework for this study it is necessary to define two terms associated with the theory: convergence and divergence. According to Giles et al. (1991), “convergence is a strategy of identification with the communication patterns of an individual internal to the interaction, whereas divergence is a strategy of identification with linguistic communication norms of some reference group external to the immediate situation” (pg. 27). For the purpose of this study it is necessary to point out convergence and divergence as communicative strategies intentionally utilized by people in intergroup communication. Based on research, divergence occurs due to “intergroup social comparisons” which cause individuals to create dimensions to remain distinct and as a result enhance their self-worth and social identity (Giles et al., 1991). This could be used to explain the communicative behaviors of any underprivileged social group when faced with a more

affluent social group. For instance, in a healthcare setting CAT could be applied to understand the way accommodation occurs between patients and health providers as they take into account conversational needs and power relations within the interaction (Bylund, Peterson, & Cameron, 2012). Furthermore, the linguistic nature of CAT is emphasized by a look at upward and downward convergence and divergence. An instance of upward convergence occurs when an individual changes his or her speech patterns to match those of the other by adopting a more prestigious manner of speaking (Giles & Ogay, 2007). Therefore, upward divergence is using those prestigious speech patterns while the other individual uses standard speech (Giles & Ogay, 2007). On the other hand, downward convergence involves a speaker using less authoritative speech patterns to decrease the distance between individuals involved in an instance of interaction (Giles & Ogay, 2007). When it comes to evaluating upward and downward convergence and divergence, it is evident that CAT is not strictly concerned with linguistic communication. To connect strategies of convergence and divergence to the direction of this present study, it is helpful to look at the way convergence and divergence could be applied in other forms of communication.

Convergence and divergence beyond speech modification strategies

In order to apply the concepts of divergence and convergence to the ways in which immigrants in Canada interact with the host country's nutritional narrative, it is necessary to move past speech communication. Even though CAT at its origins is associated with speech style modifications, it has become a generalized model to examine communicative interaction between different social groups (Giles & Ogay, 2007). Researchers have applied CAT in studies that examine communication behaviors beyond speech. In accommodation, convergence—considered the “empirical heartland of

CAT”—occurs when participants’ communication styles both verbal and nonverbal become similar to another as a way to signal attraction, seek approval, convey empathy, or develop bonds (Giles & Ogay, 2007). Therefore, it is necessary to emphasize that studies on convergence are not only limited to speech or linguistic accommodation, but also psychological accommodation. Researchers have defined psychological convergence and divergence as “individuals’ beliefs that they are integrating with and differentiating from others respectively, while [objective] linguistic convergence and divergence can be defined as the way individuals’ speech shifts towards and away from others respectively” (as cited by Giles et al, 1991, pg. 32). To understand the way nutrition is communicated to the target group in this study, psychological and linguistic divergence and convergence processes will be examined.

CAT application in intercultural contexts

Since this study is focused on the communication behavior between a primary host culture and a minority subgroup, the application of CAT is deemed appropriate. The theory evolved through an examination of interactions where “linguistic markers” defined membership to cultural groups (Giles & Ogay, 2007). Therefore, as a communication theory, CAT is useful to assess the “linguistic markers” that occur in nutritional communication from health representatives in the host country to immigrant subgroups. Gavioli and Baraldi (2011) study intercultural encounters in the Italian healthcare and legal setting between Italian “institutional representatives,” English-speaking West Africans and interpreters. This study looks at “linguistic markers” that emerge in interactions shaped by cultural, language and contextual differences. A relevant term used in the study is “institutional representative” which is an individual responsible for a particular type of institutional talk in a given public service context like hospitals

(Gavioli & Baraldi, 2011). The idea of an institutional representative is helpful for this current study in looking at the role of nutritionists and healthcare professionals in nutritional communication to this study's subgroup. In an analysis of the nutrition transition of immigrants, Satia (2010) captures the process of dietary acculturation (Appendix C). This elaborate diagram illustrates the way socioeconomic/demographic factors and cultural factors negotiate with the host culture and result in changes in psychosocial factors and taste preferences, changes in environmental factors in food procurement and preparation. Examining this multilayered process of dietary acculturation through the application of notions of divergence and convergence enables a deeper understanding of the way traditional Arabic cultural foods and food preparation practices are negotiated with the overarching nutritional discourse in Canada. As stated, "in order to function effectively and happily in a new culture, people must gain cultural skills and knowledge about the communication-based norms that facilitate daily interactions with people in all aspects of the host culture" (as cited by Giles et al., 1991, p. 246). With this premise in mind, CAT has been applied to the exploration of immigrant interaction with the host culture's nutritional discourse. Even though the majority of studies that link CAT with interethnic communication focuses on linguistic interaction, the integration of cultural norms allows a more generalized application of CAT. For instance, an Australian study that looks at responses to compliments based on the content of the response, the nonverbal behavior associated with the response, and the motives behind the response to the compliment (Giles et al., 1991). However, there is a lack of literature that connects CAT to interethnic communication and cross-cultural communication associated with particular social narratives like nutrition. Hence, this

study is situated within a context to explore the influences verbal and nonverbal communication of Arab-speaking females of different socioeconomic situations.

Research Questions:

In light of the literature explored thus far, the following research questions aim to bring forth the experience of Arab-speaking immigrants:

1. How do Arab-speaking female immigrants in Ottawa negotiate traditional food and food preparation narratives in light of the nutritional discourse in Canada?
2. How does this population group experience the process of dietary acculturation and cope with a chronic illness, namely type II diabetes?

Rationale for the research

Due to the presence of immigrants from various cultural and linguistic backgrounds in Canada, it is important to understand the most effective forms of health communication. When it comes to literature on chronic illness and its connection to nutrition, it is evident that nutritional communication is more generalized and standardized to the public. This one-size-fits-all form of nutrition communication is tricky especially in the Canadian context where immigrants are encouraged to retain their cultural practices. CAT enables the application of the concepts of divergence and convergence that occurs both linguistically and psychosocially in interactions between individuals of different group memberships. In this study, Arab-speaking women whose group membership and identities are defined by gender, language and culture will be considered vis-à-vis the “healthy Canadian” identity. The “healthy Canadian” group identity is based on the generalized nutritional discourse and the multi-faceted process of dietary acculturation (Appendix C). The objectives of this study is to explore lived experiences of dietary acculturation for more culturally-sensitive nutritional

communication that takes into account the various layers of nutritional communication to immigrant groups with specific health requirements, namely Arab-speaking females with type II diabetes. Another objective of this study is to reveal the way culture and tradition influences an individual's decision to eat healthy while living with a chronic illness. Despite the abundance of literature on dietary acculturation, there are little to no studies that look at the way chronic illness is dealt with by immigrant groups in the Canadian context. In addition, there is a lack of qualitative research on the process of dietary acculturation and the way it is negotiated within various food cultures of immigrant groups in Canada. Moreover, this study aims to integrate CAT's theoretical perspective to explore both the linguistic and non-verbal ways the sample group interacts with the Canadian nutritional narrative. This involves the way language, culture and tradition shape the way Arab-speaking immigrant women interact with health professionals and health advocates in the community.

This study strives to go past cultural stereotypes of the chosen sample group through a look at individualized accounts of dietary acculturation. This study will go beyond quantitative sampling of Arabs in general, but instead closely examine a portion of the Arab population in Ottawa. As indicated by the second research question, the contribution of this study is to ensure nutritional communication in Canada is mindful of the food cultures of immigrant cultures. Also, this study is meant to highlight the need for policy makers to take into consideration the cultural mindset of immigrants when it comes to dealing with a chronic illness like type II diabetes. Finally, the main aim is to shed light on real experiences of dietary acculturation in Canada for cultural groups whose lives could be altered with more culturally sensitive nutritional communication.

Chapter Summary

In this chapter, all relevant literature was reviewed in relation to the topic of immigrant health and type II diabetes. In addition, this chapter discussed the healthy immigrant effect a notion related to the health status of immigrants upon arrival to a new host country like Canada. Furthermore, other literature was reviewed to contextualize the phenomenon of type II diabetes and Arab-speaking women's lifestyle. Then, the communication accommodation theory was presented as the basis for the conceptual framework in this study after coverage of various ways CAT was applied by other scholars. Following that, the researcher tied the conceptual framework to the two major research questions in this research. The next chapter will cover the methodology chosen to respond to the research questions with an outline of the data collection and analysis procedures.

Chapter 3: Methodology

Method selection

The application of the phenomenological method described above was most suitable to carry out the current study. The chosen approach enabled the researcher to practice reflexivity throughout the research process while uncovering the underlying meaning of a particular experience all participants shared. According to Finlay (2012), phenomenological research is often rooted in a passion or curiosity a researcher has in relation to a topic. This study materialized from personal interest and curiosity to understand the general workings of a phenomenon experienced by the researcher's close family member. A phenomenological study calls for inter-subjectivity from the start and avoids scientific distancing evident in qualitative research (Finlay, 2012). The decision to tailor the research questions to address the phenomenon as experienced by a particular population group was an attempt to capture the *lifeworld* of a type II diabetic patient. As defined by Finlay (2012), "*lifeworld* points to our embodied sense of self, which is always in relation to others given through shared language, discourse, culture, and history" (p. 180). Therefore, a phenomenological researcher understands that knowledge of certain phenomenon is not fixed, but impacted by the way a participant directly expresses their experiences through making meaning of things that have inherent meanings within them (Finlay, 2012).

The phenomenological approach provides a philosophical backdrop to address a phenomenon beyond scientific methods of measurement. The approach negates the determinist nature of scientific empirical research and gives way to qualitative exploration where "studies can investigate experience as we live it over time, as opposed to how we conceptualize it in a fixed way (van Manen, 1990)". Nonetheless, the

approach does not call for abstractions and intellectual meandering, but provides structured tools for validity and reliability of data gathered. Scientific phenomenological reduction calls on the researcher to be fully aware of the participant's experience through data provided from the participants and bracket away any past knowledge and assumptions of the phenomenon (Finlay, 2012). This causes the researcher to probe the participant to create vivid descriptions of a phenomenon based merely on the participant's account and not from the researcher's judgments or interpretations (Finlay, 2012). This inquiry was set to uncover the first-hand experience of Arab-speaking females living with type II diabetes as immigrants in Ottawa, Canada. Therefore, detailed expression of lived experience is the best form of data collection to honor the explorative nature of research questions.

Research design

The phenomenological approach is highly interpretative and includes some generalized features and some features that are more specific to a theorist, study, or discipline. Since most phenomenological research does not follow a stringent "recipe", the researcher applied various hermeneutic aspects of the Interpretive Phenomenological Approach (IPA) for data collection and interpretation. Aspects of the transcendental perspective functioned as a guide to illustrate the mindset of the researcher throughout the data analysis and interpretation process (Moustakas, 1994).

Phenomenology: brief history, IPA and the transcendental approach

The word phenomenology is defined as any study that focuses on the being and objects of direct experience. As a method, phenomenology emerged as a philosophical movement led by Edmund Husserl in Germany as a way to resolve epistemological

problems in mathematics and logic (Creswell, 2007).

The Interpretative Phenomenological Approach (IPA) was developed by Jonathan Smith and became widely used in British psychology for “rigorous exploration of idiographic subjective experiences and, more specifically, social cognitions” (Biggerstaff & Thompson, 2008, p. 215). The theoretical foundation of IPA stems from Husserl’s phenomenology, hermeneutical interpretation, and symbolic interactionism, which places emphasis on the interpretative process to understand the meaning individuals give to events (Biggerstaff & Thompson, 2008). Therefore, the focus of IPA is to take a detailed look at individual lived experience with an examination of how participants make sense of personal and social worlds (Smith & Eatough, 2007). IPA has been in recent years applied to healthcare research due to the breadth of data derived from qualitative methodologies (Biggerstaff & Thompson, 2008). Also, the researcher is given the opportunity to grasp an idiographic understanding of research participants without losing the way a participant experiences a particular condition or situation within their social reality (Biggerstaff & Thompson, 2008). With the phenomenological approach even when empirical data is collected in the form of video recordings, narrations, interview notes, transcripts, or field notes, the researcher maintains awareness that this data does not capture the character of the original experience (Eberle, 2014). The subjective nature of phenomenological analysis does not mean a reliance on abstract intellectualizations, but emphasizes rich, detailed descriptions of a lived experience (Finlay, 2012). Therefore, a researcher needs to incorporate what is known as empathic listening and go beyond their “natural attitude” (Finlay, 2012). This involves “becoming absorbed in the world of another individual. Finally, IPA is ideal for exploring the contrasting ways patients diagnosed with the same illness talk about their condition in order to capture the

“subjective perceptual process” individuals go through as they make sense of their state (Smith, Jarman, & Osborn, 1999).

Role of the researcher

To begin with, the role of the researcher was a process of self-reflection throughout the entire IPA experience. The phenomenological attitude requires the researcher to interpret an event based on his or her own subjective experience with awareness that linguistic representation is not truly a reflection of a given experience (Ebrele, 2014). IPA recognizes access to certain phenomenon depends on and is “complicated by the researcher’s own conceptions and indeed these are required in order to make sense of that personal world through the process of interpretive activity” (Smith et al., 1990, p. 219). The following passage from the researcher’s journal demonstrates how the researcher reflexively identified personal background, biases, culture and any personal features that could impact interpretation:

I am a 26 year-old Arab-speaking female whose parents immigrated to Canada in 1998. My mother has been living with type II diabetes for over 20 years, and I have experienced first-hand the way it impacts her eating habits and mental state. Also, I myself have been raised in a household where food choices were often negotiated based on financial affordability and availability of ethnic food products like certain vegetables or spices. Some biases that I hold towards this area of research is the belief that the Canadian nutritional context is far removed from the “healthy mentality” in the Arab culture. Food is considered more than a form of nutritious fuel; it represents ethnic identity and a sense of belonging within a community. Based on my own mother’s experience, I can hold an assumption that most females within a 45-55 age group do not use technology for information seeking. Also, I’ve attended some doctor visits with my mother, and language seems to always be an issue. The health professional often finds it tricky to communicate clearly to my mother (the patient) ways to improve lifestyle through healthy eating and exercise. I also witness the way my mother was nonchalant about diet and exercise due to religious fatalism. The idea that “god wills it” guides many of her health decisions even when it comes to medication intake. In gatherings, food preparation and dietary choices are always a reflection of being hospitable and presenting guests with the most options not necessarily the healthiest.

Data collection procedures and sampling

Next, the process of data collection will be detailed in light of literature on the selected methodology. Van Manen (1990) considers the processes of data collection and analysis as intertwined. The interpretative nature of IPA means data collection and analysis is a reciprocal process. Indeed, as researchers proceed with a study utilizing IPA it is commonplace to adapt the method to one's own particular way of working (Smith et al., 1999). The key feature of both approaches to phenomenological research is the interview and purposive sampling. The phenomenological interview is an interactive, social conversation with a participant (Moustakas, 1994; van Manen, 1990). Also, this study's participant selection process was purposive because it was meant to help answer the research questions and develop a well-rounded understanding of the phenomenon. Accordingly, eight foreign-born Arab-speaking females diagnosed with type II diabetes and two with prediabetes were interviewed on a one-on-one basis (Appendix D). This sample group provided detailed individual accounts of dietary acculturation for the purpose of monitoring type II diabetes by responding to journal topic questions and interview questions with the researcher. The participants are all residents of Ottawa and are Arab-speaking females ages 36 and above. In order to recruit this sample group, the researcher posted a recruitment flyer in Arabic and English at several community centers in Ottawa, such as the Centertown community health centre, Rideau-Rockcliffe CRC, South-East Ottawa Community health center and Hunt club-Riverside Park community center. The researcher registered for and attended a type II diabetes education class to gain direct access to potential interview participants. The researcher met with an Arab-speaking dietitian and an Arab-speaking health promoter and was invited to attend a type II diabetes screening session directed towards the Arab-speaking community in the

Ottawa south region. This session is where the researcher gained contact with 6 out of the 10 participants in the study. 2 other participants were recruited through word-of-mouth and only 1 participant contacted the researcher as a result of viewing the recruitment flyer at the Hunt club-Riverside park community center. To set up interview sessions the researcher contacted participants to schedule an appointment. Prior to the interview session, the participants were given a copy of the consent form in the language of choice (Arabic or English) (Appendix E). The consent form was meant to help the participants understand the purpose of the study and prepare them for what is expected in the study. Some participants decided to opt out of the journal writing activity due to skill limitations or timing restrictions. Those who agreed to complete the journal topic questions were given a list of the questions after the interview session (Appendix F). This process mimics the protocol writing practice in hermeneutical phenomenology. Van Manen (1990) uses protocol writing as one activity for data collection in the hermeneutical method. It allows participants to reflect in writing on their experience of dietary acculturation upon arrival to the host country (Canada). During the interview process, the researcher read the study's research questions and explained anything that was not clear to the participant. The participant was made aware of their ability to avoid answering any interview question that caused discomfort (see Appendix G). Based on consent from the participant, the interview was recorded using a mobile device with built-in recording capabilities and manual note taking by the researcher. The researcher did not stick to the interview questions and let the discussion flow naturally based on each participant's comfort-level. Due to the fluid nature of the interview process, the time frame for each interview varied between 25-40 minutes. The decision to interview participants one-on-one and to ask the participants to separately respond to journal topic questions was to

capture the unique essences of their individual lived experience. In phenomenology, the researcher is concerned with shedding light on the meaning of a phenomenon as it's lived in the participant's everyday existence (lifeworld) and not limited by one's culture, social group, historical period, mental type, or personal life history (van Manen, 1990). After the interviewing process was over, the researcher transcribed and translated the interviews and the journal topic responses, and began the process of analysis.

Data analysis and interpretation

The data analysis/interpretation and write up process in this study merged aspects of IPA and Moustakas' transcendental phenomenology. During data analysis, an IPA researcher looks at the interview transcript to decipher common themes. Van Manen (1990) also discusses thematic analysis to "give control and order to research and writing" (p. 79). It is necessary for the researcher to "read and re-read the transcript closely to become as intimate as possible with the participant's account, as each reading is likely to throw up new insights" (Smith et al., 1999). Upon examining the transcripts repeatedly the IPA researcher documents emerging themes using keywords (Smith et al., 1999). Next, prior to the write up stage the researcher looks for connections between the themes and undergoes a process of clustering the themes into categories. Moustakas (1994) discusses this process as *horizontalization* and *clustering* during phenomenological reduction prior to the researcher devising textural descriptions of the phenomenon. An IPA researcher also practices clustering when looking for connections between pre-coded and emergent themes in the interview transcripts (Smith et al., 1999). In an IPA study, the write up is where the reader should be convinced of the necessity of participants' stories and the researcher's ability to undergo interpretative analysis of participants' accounts (Smith et al., 1999). In this study, the researcher opted for the use

of textural and structural descriptions to capture the themes that emerged from the data collected. For the *textural* descriptions, the researcher examined participant's journal responses and the interview transcriptions to place data under eight thematic headings: language, socio-economic impact, level of integration/adaptation to new environment, role of religion, health as personal responsibility, role of family members, role of health professional, and Canadian food culture. These themes were derived after a thorough examination of the interview transcripts and journal topic responses and are based on the "richness of the passage that highlights the theme, and how the theme helps illuminate other aspects of the account (Smith et al., 1999, p. 226).

Next, *individual-structural* descriptions outlined the contextual variations between the interviewees (Creswell, 2007). This specified the *why* and *how* each interviewee experiences the phenomenon differently based on the participant selection process. Finally, the researcher produced a *composite* description of the phenomenon based on the *textural* and *structural* descriptions. During the *composite* description writing, the researcher consulted the researcher journal to ensure assumptions do not seep into the writing. This reflexive nature of the method helped with the constant data checking and removal of assumptions. As part of the final steps of data analysis, the method allowed participants to validate the results of the research through *member checking* which will be detailed under validation strategies below.

Validation strategies

The researcher journal is one mechanism for validation of data to avoid bias through consistent recording of thoughts in each journal entries. The researcher is constantly participating in self-reflection with the ability to compare data to one's own socioeconomic origin, cultural background, gender, and family history. "Reflective

journals can be analyzed for evidence of reflection through a deep analytic framework which includes association, integration, validation and appropriation” (Sendall & Domocol, 2013, p. 54). “Reflective journaling” as referred to in education research, enables the process of reflective practice (Atkins & Murphy, 1993). This reflective practice includes awareness of uncomfortable feelings or thoughts, analysis of the situation, examining knowledge and feelings, and development of a new perspective (Sendall & Domocol, 2013). Along with reflective journaling, the researcher in this study performed member checking to confirm validity of results. As Creswell (2014) specifies, the researcher takes bits of the data back to the interviewee and not the entire data set. Moustakas (1994) mentions member checking as a validation strategy used in phenomenological research at the composite description stage. For this study, the researcher provided the interviewees with the composite description created after data analysis and thematic interpretation. To achieve this, the researcher read the composite description to participants over the phone and the participant gave input on areas for modification. For instance, one participant clarified that she did not have trouble reading nutritional labels, but she in actuality found them useless and unnecessary. Another participant suggested for the researcher to point out that the availability of resources and activities at the community centre is often based on age. For example, the senior participants are able to partake in government programs directed only towards educating seniors on healthy eating and making lifestyle changes as diabetics.

Ethical considerations

For this qualitative phenomenological study, there were ethical considerations throughout the entire process. Before collecting data, the researcher had to submit a University of Ottawa ethics review form to the Social Sciences and Humanities Research

Ethics Board (REB). The Ethics board reviewed the recruitment text used to retrieve study participants and only upon approval did the researcher use the text to recruit participants. In addition, the researcher modified all of the materials such as the recruitment text, interview questions, and journal entry starters based on suggestions from as the health professional (dietitian) and diabetes program health director. For participants, a solicitation/consent form was provided before the interview to clarify the purpose of the study (Appendix E).

The interviewees were not forced to sign the consent form or complete any of the journal topics provided only the one's they are comfortable to answer. In the interview session, the researcher provided the interviewees with a list of topics to be covered during the interview (Appendix G). The researcher invited the interviewee to request any topics to be eliminated. During data collection/analysis and report writing, participant data remained confidential with the exception of the generalized composite descriptions, which were shared with the participants as part of member checking. To ensure confidentiality with the interview script the following strategies were applied: changing names of participants, avoiding disclosure of place of employment, and avoiding physical descriptions of the participant beyond gender and age.

Chapter Summary

Chapter three was dedicated to outlining the methodology employed to conduct the research. The phenomenological method was introduced with a brief look at the basic philosophical origins of the method and a discussion on IPA and the transcendental approach in phenomenology. Then the role of the researcher was detailed to uphold the reflexive nature of a phenomenological inquiry. To follow the procedures for data collection were covered to highlight the participant recruitment process. Next, the data

analysis process was discussed in relation to the phenomenological approach requirements. Finally, the chapter covered the process of validation the researcher practiced with a consideration of the ethical issues.

Chapter 4: Results and Analysis

Prior to presenting the data gathered by the researcher, it is necessary to briefly summarize the data collection journey the researcher took. In this chapter, the researcher's voice is integrated similarly to the voice of the participants through the use of italicized text. The decision to include the author/researcher's voice is rooted in the qualitative and precisely phenomenological tradition, which brings focus to the researcher's identity and sense of voice (Marshall & Rossman, 2010). In fact, the researcher's role is considered integral and embedded within the reality of the phenomenology being described and researched (Larkins, Watts, & Clifton, 2006). The results from the semi-structured interviews conducted with the ten participants are based on the thematic accounts and were written up as textural and structural descriptions. These descriptions are a result of detailed interpretive reading during the clustering and horizontalization phase of analysis (Smith et al., 1999). The researcher chose to integrate Moustakas' stages of data interpretation for the write up to provide a road map for the reader.

STAGE ONE: REFLECTION

Often in the phenomenological tradition, the researcher's internal mental process is captured during the state of *epoche*. Here, the researcher is expected to "clear away prejudgments to view the world through fresh and naïve eyes" (Moustakas, 1994). For the present study, the researcher utilized van Manen's hermeneutic activity known as protocol writing. At this initial stage, the researcher reflects on his or her genuine experience of the phenomenon using descriptive and emotive language, but avoiding any generalization or abstractions (van Manen, 1990). Even though the researcher does not identify with this present study's phenomenon firsthand, the protocol writing activity

enabled the researcher to reflect on living with type II diabetes prior to the interviewing process (Appendix H). In this study, protocol writing was applied as an activity to achieve *epoche* where the researcher attempted to let go of any preconceived assumptions on “living with type II diabetes.” Since the researcher has a close family member who is experiencing the phenomenon under study, protocol writing was necessary to release any preconceptions and expectations associated with Arab-speaking females’ experience of “living with type II diabetes”.

During data collection, the researcher continued the *epoche* mind frame through the use of *bracketing*. This is a process that involves a dismissal of any previous knowledge on the phenomenon being researched (Dowling, 2007). This is considered the most challenging stage in phenomenological interpretation due to the difficulty of forgoing prejudgments and presumptions (Finlay, 2012). For this purpose, the researcher kept a research journal in which any step in the data collection was documented. The journal aids in the self-reflexive nature of the data interpretation process of this study by allowing the researcher an outlet to write out thoughts or memories associated to the phenomenon. Also, it helps make clear the way in which others’ assumptions have impacted the research process. To demonstrate some excerpts from the researcher’s journal are presented below with captions on possible assumptions embedded in each encounter.

Researcher reflections on data collection

I experienced great difficulty in accessing my sample group because Arabs do not usually read flyers and fear trusting someone they do not know. In addition, after getting in touch with an Arab-speaking dietitian at the Centertown community centre, I was advised to target an older age group. According to the dietitian at the Centertown community centre, older females were more willing to visit the centre and talk about their condition. Immediately I needed to change the age group of my sample group from those ages 25-55 to anyone over 25 years of age. Another factor that influenced my access to study participants is location. The dietitian introduced me to an Arab-speaking Health

Promoter at South-East Ottawa Community Health Centre, in the hopes of exposing me to the sample group. Indeed, the health promoter invited me to attend a type II diabetes screening session held at the community centre directly targeting the Arab-speaking population in Ottawa.

Embedded assumptions: Arabs fear the unknown; the dietitian's personal experience causes her to believe younger females with type II diabetes are not as approachable.

Reflection after each interview in the researcher journal functioned as a point of reference for the researcher during the data interpretation process. The researcher was able to differentiate between predetermined thoughts and themes extracted strictly from the interview transcripts. Below is an excerpt from the researcher journal is selected to demonstrate the process of reflection following an interview with a participant:

I just finished an interview with Alea at her home in Cedarwood Dr. the apartment is very minimalist with very little furniture. She offered me a few snacks and water before the interview. After she skimmed the Arabic version of the consent form, she quickly agreed to participate in the study. I was surprised when she asked me when I would provide her with the compensation¹. I felt she needed the compensation. She mentioned she was on welfare and living with her young son who is still in high school. She is older, speaks no English and is a newcomer, so it would be hard for her to find work here. I handed the gift card before the interview to reassure her.

Embedded assumptions: Alea mainly agreed to participate because of the compensation; minimalist furniture is a reflection of financial status; older meaning she most likely does not work; speaks no English so most of her social interactions are most likely only with other Arabs.

STAGE TWO: THEMATIC ANALYSIS OF DATA

Horizontalization (clustering of themes)

Next, the researcher equally examined all interview transcripts to formulate a list of reoccurring themes. Initially the researcher read through interview transcripts and journal topic responses to manually label pre-coded categories and emerging codes in the text (Appendix I). Since interview questions were designed to reveal information based on pre-determined themes, the researcher's clustering process involved a separation of

¹ The compensation for this study is a \$25 gift card given by the researcher to the participants.

pre-determined themes and emergent themes (Appendix J). As part of a rigorous interpretive process, the researcher reread the transcripts and journal responses repeatedly to extract connections and associates between participant accounts. As Smith, Jarman and Osborn (1999) exemplify, the researcher used the margins of the transcripts/journal responses to document theme titles and used keywords to capture the essential quality of what is in the text. Initially, the keywords and themes jotted on the margins are definition of information in found in the transcribed text. Later, the researcher groups the keywords and themes from each participant account into a master list of themes that are common between participant and any theme that help bring new insight in to the understanding of the phenomenon. Next, in the write up stage the researcher begins with textural descriptions that provide in-depth interpretation of the eight major master themes evident after the meticulous coding and clustering interpretive process.

STAGE THREE: WRITE UP AND INTERPRETIATION

Textural descriptions of 8 major emergent themes

Theme 1- Language: One of the major factors that determine participants' access to health information related to type II diabetes is language. The ten interviewed participants varied in their English language proficiency level, so the difference in the experience of a participant with lower English language proficiency was very evident. To begin with, seven out of the ten interviews were conducted strictly in Arabic due to the language skill of the participant. Two of the interviews involved a hybrid of English and Arabic language use, and one interview was conducted completely in English. Language also influenced the way participants sought health information. For example, Alea pointed out the need for Canada's food guide and nutritional facts information to be in Arabic for it to be useful for her (Appendix K). In addition to the documents given to her

at the community centre, Alea claims she has brought with her books on nutrition from Iraq to ensure she remains healthy in this new environment. For other participants, language is not an issue due to the abundance of resources available. Khalila says,

I do not have any problems with the language because the first step I took when I moved to Canada is learning English. I know French but I made sure I learn English. At times there are Arabic speakers who translate the information to Arabic. Honestly there are so many options when it comes to non-English speakers.

Therefore, lower English language proficiency levels do not necessarily mean the exclusion of individuals from health information. As pointed out by a fairly newcomer Um Mohan, even during the information session following the diabetes screening session held at the South East Community Centre the presenter was speaking in Arabic and making the information relative to the audience needs. This was done despite the materials (i.e. PowerPoint presentation) being standardized and provided by the Canadian Diabetes Association. When it comes to shopping for health foods, the inability to read neither English nor French becomes a challenge for participants who do not possess the language skills. Um Mohan admits she can only decipher information on sugar and oil content in food ingredients. However when asked whether she can read the nutritional facts, she says “the rest of the information is unclear to me”. For Raifa, a participant who has been living in Canada for over 30 years, nutritional labels are easy to read, but she deems them “useless”. When questioned on the reasoning behind that belief, she stated “I do not really pay attention to it most of the time because I’m too busy looking at ingredients and price”. For Tamani, knowledge of English is key to information and resource access for type II diabetes management. Similarly to Khalila, Tamani believes learning English was a pivotal step upon moving to Canada. She listed all the things she wouldn’t be able to do without knowledge of English, “I wouldn’t be able to read books,

magazines, websites online, or even comfortably talk to my doctor. I also needed to learn English for my job. I wouldn't be able to do my job without speaking English". She considers her language skills weak because she is not able to write in English, but for her the ability to speak is sufficient. Mina is another participant who uses her English language skills for online information seeking. She says, "I am able to find quick tips online here and there. I also use Pinterest for new cooking ideas, which are fun and easy to follow. I prefer looking at colorful images on my iPad rather than a pamphlet from a clinic it makes feel less sick". Khalila demonstrated a similar attitude to visiting online websites for health information. Even though Khalila searched for information in Arabic, she mentioned the pleasure in searching for new healthy recipes. Tamani found online information especially on social networking sites like Facebook as "entertaining, but she was in agreement with Um Roma's reliance on Google as a "legitimate" search tool. Their reasoning is aligned in the sense that Google enables the user to specify search goals and filter out unnecessary information.

Theme 2- Socio-economic impact: Other defining features that evidently influenced participants' accessibility to health information and information on managing type II diabetes were occupation, education, income, wealth, and place of residence. All these factors are all intertwined and become apparent influencers in the experiences of participants. Tamani, a journalist with a background in psychology and early childhood education, demonstrated a sense of certainty and self-control due to her ability to "educate herself". When asked about the ways she gains information about her chronic condition, she smiled and said, "I read a lot, and do not trust everything told to me". Tamani who is a breast cancer patient laughs as she tells me "I was told if I breast feed I would not get breast cancer, and I was also told if I didn't have gestational diabetes I

wouldn't be a diabetic. So I do not believe anything. I read, watch YouTube videos and surf the Internet because "I am my best teacher". This attitude of self-control is also noticeable with Um Roma who worked as nurse in her home country of Yemen. Um Roma associates the onset of the disease with a traumatic event she experienced in 2006. According to her, she is knowledgeable enough when it comes to the need for lifestyle changes because of her background in nursing. Even Mina who works as a volunteer teacher at a local school says,

I am conscious about what I buy and intake. I stay away from processed, packaged, canned or sealed foods. I spend almost \$250 per month on food as a single person. My budget is high because I only stick to fresh produce, fresh meat, fresh deli products and whole grains. I try to make my own juices as well because most of the bottled options are filled with sugar.

Mina's pride in spending more money on fresh food products and making her own juice drinks not only shows self-control, but also the way financial stability impacts food choices. She is able to allot \$250 every month for the freshest foods while someone like Raifa talks about money as a barrier to access to healthy foods. When questioned on the food choices at the grocery store, she said, "I choose greens, but unfortunately, for a broccoli bundle I am sometimes expected to pay 4 dollars. That's just too much so I buy frozen vegetables". Most participants echo Raifa's concern when it comes to the cost of health foods particularly those who are unemployed or receiving financial assistance. One participant who received welfare support from the government even asked the researcher for if there are any forms of assistance available for health foods. Another even brought her resume and a job advertisement in the hopes of getting the researcher's help in searching for a babysitting job.

Participant responses revealed a change of food choices due to the inaccessibility to healthy options in comparison to the country of origin. The majority of participants

claim that all traditional foods are available to purchase in Canada in specialty convenience stores. However, participants like Rehla nostalgically recall the great amount of fish she ate in Morocco because it is easily accessible and cheap. Also she remembers the large variety of fresh fruits and vegetables available at her family farm back in Morocco. Jamila talks about the inability to eat as much red meat in Canada even though that was something prepared for lunch on a daily basis back in Iraq. She seems to be happy with this change because she now knows the health benefits of not consuming as much red meat. Tamani was another participant happy with the change in diet upon moving to Canada. Even during a trip back to Egypt in 2009, Tamani kept to her new diet despite all temptations to consume sugary desserts and fatty foods. Participants' access to a glucose monitor machine was not necessarily influenced by socioeconomic differences. However, there was clear difference in the quality and reliability of the glucose monitor used by participants. Raifa owns a glucose monitor machine that she hardly uses because she believes it is faulty and does not function properly. When asked whether or not she will purchase a newer model, she said she is not financially capable. On the other hand, Um Roma is happy with the glucose monitor machines she owns along with the blood pressure machine she purchased herself. The only participant without a monitor machine is Rehla because she is unsure how to use it even after her family doctor showed her. She thinks it is unreliable in comparison to the tests performed by her family doctor.

Theme 3- Level of integration/adaption to new environment: All participants displayed varying levels of integration into the Canadian society. Integration was not necessarily reflected by the number of years a participant has been residing in Canada, but on the different ways individuals spoke about living in Canada. The experiences of participants vary from recent newcomers who have only lived in Canada for approximately one year

to participants who have been living in Ottawa for over 30 years. Most participants spoke of their move to Canada as step towards a sense of “freedom”. Khalila said:

I feel freer here. I also feel better because I am close to my children. They needed me because they were all married and need my help with my grandkids so I felt it helped me regain a sense of security and freedom. People here are so helpful and I have been able to volunteer my time at the hospital and schools. It is a way better experience than living back home.

The ability to volunteer causes a sense of belonging for the majority of participants. For Um Roma volunteering was a gateway to landing the position of an Arabic language teacher to beginners at the school. Um Roma’s experience of living did not begin positively, she came to Canada under a diplomatic visa because her husband worked at the Yemeni embassy. For her things were better when “I become more involved in the Canadian community. I integrated with people and started teaching, so I felt useful in the community. I love this country now”. For newer residents, the move to Canada is a promise to new beginning and the availability of resources especially resources for better health. Um Mohan and her husband entered Canada through the United Nations Refugee Agency talked about the “lack of humanity back home”. She feels “secure and happy here” but wishes to bring the rest of family member with her. Alea talked about the sense of “self-worth” she gained after moving to Canada with her son just under two years ago. In Canada, Alea reflects, “there are avenues to support people with chronic illness” and the “individual is respected and taken care of”.

When participants talk about the support provided to them, most are comparing to the experience “back home”. Therefore, the individuals rely on the resources available to them to deal with type II diabetes. Six out of the 10 interviewed participants’ talk about the South East community centre as an important part of their lives and an important site for information and support. At the community centre participants attended

information sessions on chronic illnesses and were provided with type II diabetes screening sessions free of cost. The community centre plays an important part when it comes to dealing with type II diabetes. These are some way the different participants:

“I like going to the community centre because I can attend lectures and learn about blood pressure, type II diabetes and other chronic illness”.

“I haven’t been referred to a nutritionist...at the community centre actually there are nutritionists brought in to give us advice and suggestions on healthy eating. I think there was a dietitian at one of the lectures, too”.

“The centre is great because I learned various exercises to stay active. Even with my knee problem I was taught different chair exercises. I also go to aqua aerobic classes because I was advised water exercises are easier on my body”.

“At the community centre my husband and I were able to ask questions in Arabic to a nutritionist who also gave us documents to help us maintain portion sizes and make all the right choices at home”.

“My support circle includes my family and friends. Also, I like to talk to community members with the same condition”

Therefore, the community centre has an integral part in educating about type II diabetes for the participants and functions as site of communal support. In addition, the various activities in the community centre provide participants with alternatives to staying healthy and active during the wintertime. The wintertime was a recurrent “issue” for participant in adapting to living in Canada. During the wintertime, fresh foods are more expensive and outdoor activities were near to impossible for the interviewed participants. Rehla who enjoys taking neighborhood walks during the summer has to substitute this activity with classes at the community centre in the wintertime. Alea says she is “afraid of going outside” because the cold in Ottawa is nothing in comparison to the climate back in Iraq. Khalila is also “scared of being outside” during the wintertime because she is “worried” she would slip and fall on the ice. Another participant only goes places in the wintertime if her son drives her or else she stays home and relies on

household chores as a form of exercise. Ragla laughed as she said, “going up and down the stairs in my home is enough”. Even though this is her fourth winter in Canada, Jamila said, “I will never get used to the cold here. It is just way to cold in Ottawa, but in the summer its beautiful and we can go to the park”. Therefore, most participants view the cold weather as an obstacle when it comes to adapting to life in Canada. A participant’s age impacts her motivation to integrate and participate in the community. In discussions of “getting involved” in the community older participants were less enthusiastic and talked about the community centre activities as a form of involvement. However, a younger participant suggested, “more programs directed to Arab-speaking females” held outdoors and in educational institutions. She even asked the researcher to help her in contacting the health promoter at the community centre to aid with activities related to health promotion at the community-level.

Theme 4- Role of religion in life: Religion is an important part of all the participants’ lives because it defines the daily choices they make including food choices. In addition, religion influences the mental state of participants as they talk, reflect and discuss living with type II diabetes during the interview. One major notion echoed by participants is the lack of ultimate control over their health. One phrase used over and over again when participants talk is *inshallah*, which translates to “god willing”. This is not just a tag added to every sentence, but an actual belief each individual has on the power of Allah (Muslim God) to change the state of human beings. This means that regardless of any personal effort made or not made by an individual it is Allah’s grace that would define whether or not someone could achieve a goal or task. This belief held by all Muslims does not necessarily mean one does not try or attempt to make personal changes, but that

any action one takes has consequences based on what Allah makes permissible. Um

Roma demonstrates this when she talked about her trip to umrah²:

The worst time for was when I went for umrah recently. I stopped taking medication...I just thought being in Mecca and consuming the zamzam water³ would keep me healthy. It was a risk I took. But that's to Allah now my health is back to normal and I can manage my glucose levels again.

The zamzam water comes from the zamzam well inside the Masjid el Haram in Mecca, the holiest place in Islam. Therefore, Um Roma's belief in the holy power of the water as prescribed in several Muslim teaching caused her to abandon her medication.

When asked about the triggers that could have caused type II diabetes, most participants said its what "Allah had written for me". Also, in discussing techniques for self-management, Raifa said she limits her intake of bread or rice, but most of all she "prays Allah protects her". This reliance on Allah for protection normalizes the disease for participants and makes living with type II diabetes something durable. In her response to the affect of type II diabetes on life choices, Um Roma reassures, "its normal. It is Allah's will and I try to manage it in any way I can. But it is Allah's will. Now type II diabetes is very common and not as scary as it used to be". This normalization of type II diabetes is displayed in the way older participants talked about their family health history. Ragla responds "I wasn't too shocked when the doctor told me I had type II diabetes. My mother had it and my grandmother had it, so I knew I would eventually get it". Another participant repeatedly said the phrase "Nothing happens to us that God has not written for us". This is often used as an indication of faith in God's decree on an individual's life be

² Umrah is a pilgrimage to Mecca, Saudi Arabia, performed by Muslims that can be undertaken at any time of the year, in contrast to the Hajj.

³ The zamzam water is not sweet; it is somewhat salty, and the believer only drinks this somewhat salty water out of faith, believing that there is barakah (blessing) in it. So when a muslim believer drinks the water it is considered a sign of faith.

it a negative or positive change. Religion is a major definer of the way participants discuss managing life with type II diabetes

Theme 5- Health is a personal responsibility: Certainly as demonstrated with the previous, religion is a major influencer on the ways participants view health or define “being healthy”. However, in addition to Allah’s power over their wellbeing many participants talked about living healthy as a personal responsibility. Alea talks about adapting to life as a diabetic:

For me when the doctor told me I’ve got type II diabetes I started by changing my eating habits. For example, in a day I decide whether to eat an apple or orange. Even biscuits I only eat one with my tea. In the past I would eat whatever I wanted whenever.

Alea’s responsibility over her health and well-being was obvious when talking about her initial diagnosis with type II diabetes. Despite her family doctor’s hesitation to perform tests due to the “lengthy process”, Alea was persistent and determined to find out whether she was diabetic. She experienced symptoms like dry mouth and excessive urination, which she knew, were associated with having type II diabetes. The need to take care of oneself clear in the way the majority of participants talked about self-management techniques. Raifa made it clear her children bear no responsibility in the way she manages living with type II diabetes. She laughed and said, “I’m older and need to take care of my own health. So they focus on themselves. I just make sure I cook clean for my family and myself”. Rehla also talked about taking care of herself for the sake of her family member. “I am a grandmother. I take care of myself 'cause my daughter works and she has children,” said Rehla. Tamani who is living with two life-changing health conditions took a made a firm decision to live healthy. She said, “...because I am

diagnosed with cancer my point of view on health has completely changed. I decided I know the benefits of living healthy and I work hard to remain healthy”.

Participants who are diagnosed as prediabetic feel a higher sense of self-control when it comes to making “healthy choices”. Khalila, who is diagnosed as prediabetic, talks about importance of making the right choices when grocery shopping. “When I am shopping I only look for health foods and *halal* foods because I am Muslim. I choose things that do not have high amounts of fat. I choose vegetables. Lots of vegetables. I like fish too. There make sure I know the contents of everything I purchase”. Both prediabetic patients mention the importance of “avoiding medication” because that means as Khalila describes the diagnosis with type II diabetes would be like a “life sentence”. Jamila also talked about the need to stay healthy because taking medication would mean a deterioration of health and well-being. Therefore, the fear of needing to take medication drives prediabetic patients to make the necessary lifestyle changes. In the journal responses, many participants talk about food as a priority in staying healthy. This is shown in Khalila’s entry:

Food is a priority in my family because it connects us. It is how we do things as Arabs. Everything is related to food. We like fatty meat. Lots of sweet food, but now that type II diabetes is prevalent. I remain aware and careful of what I’m eating.

In a similar vain, Jamila writes about the importance of “not letting our appetite cause us to eat foods that taste good, but are harmful and not nutritious”. For the most part all participants are in consensus that food consumption habits is a major indication of health on that an individual is in control of the benefits or detriments of eating habits. Mina’s experience of a major life change caused her to over indulge and use food as a form of comfort. She describes in her journal entry, “after my divorce from my husband

of 12 years food became my new life partner. I started indulging in food to numb the pain I felt inside. At first it was sweets to cheer me up then it became late night habits I could not stop”. Mina is the only participant who talks about food as an emotional crutch when dealing with a dramatic life change. However, like others further reading of Mina’s entry shows Mina’s initiative to take responsibility over her own health. She writes, “ After my diagnosis I thought that is all I’ll ever be a divorced diabetic failure, so I had to push myself to avoid poor food and life choices”. Good health is associated with food and eating patterns exhibited by participants as a form of personal responsibility and self-control to manage living with type II diabetes. Yet, the family or particular family members have an important role in impacting the lifestyle of participants too.

Theme 6- role of family/specific family members: The husband is a recurrent theme in the lives of the women interviewed. The husband takes an important role in the daily choices and the way a participant manages her chronic condition. One participant implies her healthy food choices are defined by what her husband finds acceptable or not. She says, “My husband and I eat the same foods. We try to make healthy choices. But I have to consider what he likes”. Her response might have been impacted by her husband’s presence during the interview. The husband is considered a source of support and companionship in managing health and adapting to life with diabetes. Um Mohan includes her husband’s experience as she responds to the majority of questions related to the impact of type II diabetes on daily choices. She even fondly recalls instances when she forgot to take her medication and her husband reminds her because he has to do the same.

Ragla also talks about her late husband as a form of support for condition and got emotional as she recalls, “My husband used to always tell me to be careful when I ate

sweets with tea. I liked that he cares, but I didn't feel restricted. I know he was worried about my health". The family is a core source of support and self-worth in the lives of the participants interviewed. Tamani demonstrates gratitude and thankfulness as she speaks about the way her children make sure she eats healthy and does not get stressed out. She laughs as she says; "They are all chefs now (her children) and want to make the best and healthiest meal. I know they want to impress me and make me happy so I let them".

Um Roma repeatedly mentions her daughter whose opinion she values and whose support she needs. Her daughter helps her with choices when grocery shopping and she asks her daughter to check whether something is healthy and nutritious. Um Roma's eating habits changed once the entire family got involved in "making changes" and "looking out for one another". When asked about the importance of family members in type II diabetes management, Um Roma gets teary-eyed and says "All my children are worried about me. Even if I just cough, each one asks me how I'm feeling. This sense of security and peace of mind is what helps me maintain my health". Khalila also experienced this when she first moved to Canada and became reunited with her children. She recalls how the stress levels of being far from her children increased her risk of developing type II diabetes along with the poor food choices she made while living in Morocco. She said now that she is living near her children and grandchildren she feels as at ease and happier. In addition, the perception and attitude of family members is really important for most participants living with type II diabetes. After her diagnosis with type II diabetes, Mina remembers the way her family and friends "looked at her with pity". At the time, she associated being diabetic as being a "failure" especially that she was also dealing with her new status as a divorced woman in the Arabic community. Mina's condition became something shameful and negative due to the perception of her family

members. Yet, it is also her family members who showed pride and provided support when she decided to make healthy changes. Therefore, a participant's family members has a necessary role in managing type II diabetes and the way an individual perceives herself as a "diabetic". As Tamani clearly states, "Thanks to my family I feel cared for, loved and supported. I feel like I'm not alone".

Theme 7- Role of Health professional: The health professional functions as a point of reference for professional advice and moral support. Two participants have family doctors who are Arabic and both find makes it easier for them to discuss their issues because of the "similar background". Um Mohan describes her interaction with the family doctor as "pleasant" because the family doctor speaks Arabic and "understand the culture we come from". For Um Mohan and her husband the doctor provides emotional support as well. "Our doctor advises us to not get stressed out because it could worsen our condition more than eating unhealthy". Alea whose family doctor also speaks Arabic says she is "grateful" for the help provided by her family doctor. Here, she remembers the way her doctor "helped her out" in her first year of moving to Canada.

At the beginning I wasn't getting welfare. So she would help me with my medication since I have high blood pressure and cholesterol. She would give me her own medication. I would pay her around \$50 or so. I also had an unexpected heart operation which cost approx. \$350 and she helped me in everyway she could.

Other participants imply a more "professional" relationship with their family doctor. Rehla communicates with her family doctor in French and says that is easier for her than speaking in English. However, she says her doctor's role is to "measure any changes" like weight change, glucose level, blood pressure, and so on." When asked how to describe the interactions with her family doctor, Rehla says they are "informative" and "important". She adds, "I actually do not really talk much about my condition with my

doctor because he looks everything on the screen and informs me if there is a drastic jump in numbers on the computer”.

For Raifa visiting the doctor is “stressful” because she describes the way she feels “anxious” about her doctor’s warning about her weight. Raifa mentions her doctor’s concern every time her weight is measured because she is under weight. Her family doctor always tells her “you need to eat more. Being underweight is unhealthy”. Raifa shakes her head and says, “I feel bad every time I hear that. I try to eat more quantities, but my weight is usually under”. In her journal topic responses Raifa states, “Overall, my visit to the doctor serves as a reminder of my condition and to become healthier”. Both prediabetic participants talk about their interactions with the doctor as necessary to “avoid getting type II diabetes”. Jamila writes, “I like to do the yearly check-up to make sure I do not have type II diabetes ...my conversations with the doctor or any other health professional is always on ways to avoid that diagnosis and ensure I do not become a diabetic person”. Mina cites the role her doctor played in helping build her “support circle”. She writes, “My doctor referred me to community centre and clinics with support groups, which are very helpful at first.” Even though other participants describe their experience with the family doctor as “comfortable”, Ragla talks about her doctor as a “source of anxiety at times”:

She always tells me I have to start taking insulin shots even though I repeatedly told her I do not want to. My sister’s health deteriorated after she stated taking insulin shots. However, I know my doctor is concerned about my health. She is Egyptian and speaks my language. She understands my culture so she tries to be helpful and understanding.

Ragla’s experience was different when she met with an English-speaking nutritionist. She says, “I just listened mainly and she asked me some questions, my English is a little

weak. I understood most of what she said, but again she gave some recommendations. Some are helpful and others I can not really do”.

Theme 8- Canadian food/culture: While all interviewed participants are foreign-born, the number of years residing in Canada range from two years to thirty-five years. Despite that difference in years living Canada, the majority of participants demonstrate a lack of interest in foods other than ones associated to their own culture. When asked to write about the “Canadian food culture” and “Canadian food”, most participants display a contesting view of “Canadian food culture”. Alea writes about the new food culture as one to promote nutrition and health. She writes, “ I feel I learned to eat healthy ever since moving here”. Yet, Khalila responds:

In Canada, I have to be more careful not to be attracted by fast food. Pizza, easy cooked frozen food because my children and grandchildren love it.... it is easy to make convenient choices. I always try to bring in traditional food because they are usually healthier and I know the ingredients I put in my food.

Other participants mention the availability of health care and the general concern for health and disease prevention causes “one to be more responsible over their own eating habits”. Tamani shows this individualistic mind-set when questioned about her eating habits when travelling back home. She shrugs her shoulders and says, “It does not matter where I am because my health is my responsibility whether I am in Canada or Egypt”. Most participants continue to prepare traditional food in Canada and view this is a positive aspect of living in Canada. Ragla says, “Everything is available here. If not at Independent there are many *halal* food stores where we buy meat, dates and other foods. All food is found here. Maybe more expensive, but we can find it all”. Some participants seem puzzled when asked whether they eat “Canadian foods” like poutine or beaver tail. One participant responds by stating that she does not eat fried foods and only eats

vegetarian dishes at restaurants because the meat is not *halal*. Mina writes about adjustments she made after moving to Canada:

Coming from the Middle East where fresh food is found in abundance and meat was butchered daily. Generic “Canadian food” is filled with hormones and preservatives, which causes weight gain. As an immigrant, I learned that fact later in life. Cheap is not always good because the quality is compromised. Middle Eastern mainly includes fresh herbs, vegetables and healthy ingredients. I often cook but finding quality fresh ingredients requires more money.

Hence, in the perspective of participants the Canadian food culture includes both a change in attitude towards living a healthier life contrasted with the availability of convenience foods that threaten “healthy traditional” diets.

Imaginative variation (Individual-structural descriptions)

In this section, the researcher performed individual-structural descriptions as part of the imaginative variation process. As cited by Moustakas (1994), “Whereas textural descriptions focus on the ‘what’ of an experience, structural descriptions focus on the underlying and precipitating factors that account for what is being experienced; in other words the ‘how’ that speaks to conditions that illuminate the ‘what of an experience” (p. 98). The structural descriptions below capture the accounts of all ten participants:

Rehla’s experience of living with type II diabetes

Rehla’s experience is defined by a sense of self-management based on a personal responsibility to remain healthy and stay active. Being a member of the senior population, Rehla has access to many organized activities in the community geared to help seniors remain active regardless of weather conditions. As a grandmother, she displays a sense of obligation to stay healthy for the sake of her children and grandchildren. Rehla is uncertain of the reason for her diagnosis, but she mentions a “sad” event that could have triggered it. In terms of eating habits, Rehla does not feel the

need to restrict herself, but only manage the quantities of foods consumed. The community centre is an important site in Rehla's life as she attends many of the exercise and information sessions held to inform community member with type II diabetes. Rehla avoids any situation that causes her to be stressed or anxious. From time to time, Rehla travels back home to Morocco where she enjoys eating lots of fish, which is expensive in Canada. Rehla does not read or write but speaks French fluently. Therefore, she is happy her doctor speaks French too. Rehla only "eats out" on occasion when her daughter invites her to an open buffet where she only chooses to eat salads or soup.

Tamani's experience of living with type II diabetes

Living with type II diabetes entails feelings of anxiety and worry, dealing with another terminal illness and emotional empowerment through information-seeking and family support. Tamani experienced anxiety after her initial diagnosis of type II diabetes a few months after she found out she has breast cancer. She becomes worried every time she gets sick because her glucose levels increase and she feels weak. Having to cope with breast cancer and a chronic illness like type II diabetes causes Tamani to be vigilant and careful with her lifestyle. She is confident that her educational background and love of reading help in her information seeking and learning ways to live healthy. However, she mentioned feelings of surprise when diagnosed with both illnesses because of previous knowledge. She considers her family's move to Canada as an opportunity to live healthy and receive the proper treatment and care for her situation. For Tamani, learning how to speak English was a necessity to understand and integrate in the Canadian culture. Also Tamani talked about using social media and the Internet as sources for information seeking but through which she exercises utmost caution. Tamani's main source of moral support comes from her family members who help keep her in check when making

negative health choices. She mentioned feelings of “care”, “love” and “support” and not “feeling all alone”. Being a cancer patient, Tamani has access to nutrition programs at the hospital that help her with individualized meal plans and frequent routine check-ups. Due to Tamani’s health needs, the entire family has developed an interest to be eat healthy and instill lifestyle changes like not eating after 8 o’clock. Tamani also finds joy in her weekly swimming classes, which she attends four times a week even during the wintertime.

Mina’s experience of living with type II diabetes

Mina associates her diagnosis of type II diabetes with her divorce after a 12-year marriage. In her life, the food choices and lifestyle changes that occurred after her divorce meant she used food as a source of emotional comfort. Her change in marital status was a defining factor of her sense of identity and the way her family members perceived her life. Mina wrote about food becoming the most important thing in her life and sense of control after her divorce. Mina’s life turned around after a visit to a nutritionist who recommended “a life change” rather than a mere diet change. She talked about the life change meant a change in perspective in the way she valued her life and the way her family member changed their feelings of “pity” towards her to “pride”. Mina went from feeling “overweight, depressed and unhealthy” to taking initiative to learn healthier ways to eat and foods to avoid. Mina talked about her support circle as an important factor during her turning point from living an unhealthy life and reliance on food. From her support circle she learned ways to think of creative meal plans, she became motivated to work out, and she received advice on daily issues. The emotional comfort she sought from food became replaced with “like-minded” people who are living the same experience. Mina exuded energy as she talked about the willingness of the new

generation to make better and more informed decision on their health and lifestyle habits. Mina's decision to change her lifestyle impacts the way she includes others in her life like her friends making their own jam together to save money. Whereas prior to her decision to change Mina felt isolated and judged by all her loved ones. Mina who is just under 40 years of age demonstrates an understanding of the difference between foods in her home country Jordan and her new environment in Canada. The main issue with food in Canada for her is the lack of freshness of herbs because in Jordan her grandmother grew her own herbs. She intends to do the same once she has more free time.

Khalila's experience of being prediabetic

Khalila is prediabetic and her major concern is to "being sentenced with type II diabetes" and "needing to take medication for life". Interactions with her family doctor are mainly on ways to decrease her chances of "becoming a diabetic". She wrote about the constant temptation she has towards eating sweet foods, but she tries to limit quantity consumed. For Khalila's family food is a priority in particular fatty meat and carbohydrates. She wrote about the prevalence of type II diabetes in her family, and her "fear" of being diagnosed as well. She mentions language as an important factor in enabling her to communicate with health professionals and gain the "right information on living healthy". The community centre is a necessary part of Khalila's information-seeking and moral support because she believes the information from such lectures is more reliable than online information. With her family, she tries to preserve traditional dishes because they deem better choices than pizza. Khalila demonstrates concern for the eating patterns of her grandchildren because it does not include as much Moroccan food. She sees it as her role to cook traditional foods for her grandchildren as an alternative for convenience foods. Wintertime and the scarcity of fresh foods make eating healthy

options for Khalila more difficult.

Raifa's experience of living with type II diabetes

The structures that define Raifa's experience with type II diabetes are financial limitations, belief in God's (Allah) will and protection, and a personal responsibility to live healthy. Raifa considers the cost of healthy food to be really high and unaffordable for her. This is especially true during the wintertime when she at times cannot afford to buy enough fresh fruits and vegetables for all her family member. Raifa worries about her inability to gain weight and that she is usually measured as underweight every time she visits her doctor. However, she relies on the ability of Allah to protect her and provide emotional support to her when she needs it. Raifa discusses taking complete responsibility over her lifestyle and eating habits because all her children are older and are preoccupied with other obligations. Raifa is currently seeking employment as a babysitter due to her limited credentials. She said she wants to have a personal income to have more financial freedom. Raifa talks about her regret for not learning to use the computer because she it would increase her sources of information seeking. She complained about her children being to busy to help her most of the time.

Jamila's experience of being prediabetic

For Jamila, it is necessary to constantly remind oneself that food is a source of energy rather than focus on satiating one's appetite. Jamila who is categorized as prediabetic talked about the community centre as an important feature in her life to stay healthy. The community centre is where Jamila attends lectures and information sessions geared towards the Arab-speaking community. It is also a site for socialization and moral support because she is able to get in touch with other Iraqi females going through similar experiences. Jamila implies the need to consider her husband's food preferences when

preparing foods at home. Her husband shares her concern of “avoiding becoming a diabetic person” and helps in making healthy decision when grocery shopping. She talked about their decision to reserve eating red meat only for special occasions. Jamila seems content with her family doctor’s role as a source for health information and professional insight. She seems more reliant on “professionals” to gain information due to her lack of computer literacy. She displays hesitation to learning from television programs and implies she does not spend lots of time watching television. Mainly Jamila seems attentive to her husband’s opinion and asked for his attendances during the interview.

Um Roma’s experience of living with type II diabetes

Um Roma’s experience is structured by an acceptance of her condition as God (Allah)’s spiritual test, “peace of mind” due to the involvement of family members, and sense of security in Canada. Um Roma implies her diagnosis with type II diabetes and her ability to manage is part of God’s will. She talked about her condition being “normal” because “its god’s will and I try to manage it any way I can”. An incident of her abandoning medication during a pilgrimage to Mecca could be an indication of her possible belief in her condition being resolved through spiritual belief rather than medicine. In Um Roma’s family, every family member is involved in healthy decision-making especially her younger daughter. She values her daughter’s opinion when it comes to health foods and looking for better options at the grocery store. She is “thankful” that even her husband takes initiative and manages his own weight and in turn sets a positive example to her children. For Um Roma life in Canada is a blessing her job as a language teacher at a local brings her a sense of “integration” and “purpose” in the community. As an individual living with a chronic illness, she implied the resources available to her bring a sense of reassurance. Um Roma talks about the importance of

choices when living with type II diabetes. Living in Canada she said provides one with the choice to live healthy with all the avenues available or to live unhealthy with all the convenience foods available.

Alea's experience of living with type II diabetes

Alea's experience is based on an implied sense of worth due to the financial support and moral support experienced upon moving to Canada. She talks about the difference between the way individuals with chronic illness were treated back home and the way she is being treated in Canada. Alea demonstrates feelings of "self-worth" and "thankfulness" when talking about the way her family doctor helped her when she first moved to Canada. She talks about the "ease" in communicating her needs to her family doctor who speaks Arabic and is understanding of Alea's experience. Alea moved from Iraq to Canada with her son implied a need to be healthy because her son needs her. Alea has limited computer and English language skills, so she seemed to rely heavily on her Arabic-speaking family doctor for information. Alea mentions attending lectures at the community centre, but clarified that she does not visit the community centre often during the wintertime. Her support circle includes her neighbors who she refers to as her "friends" two of whom are also living with type II diabetes. In her journal responses, Alea wrote about associating "being diabetic" with a feeling of "panic". However, she considers her health "her own responsibility", so she constantly makes small changes to ensure eating healthy. For instance, she talks about eating a lot of dates without hesitation in the past, but now she only counts "seven dates a day". Alea's main source of financial support is welfare, and she mentions "financial limitations" and "budgeting" as factors that impact her ability to buy health foods and fresh vegetables.

Um Mohan's experience of living with type II diabetes

Um Mohan's life with type II diabetes is shaped by her and her husband's recent move to Canada and adaptation to a new environment. Um Mohan and her husband were both diagnosed with type II diabetes in Canada after moving to Canada through the UN refugee services approximately a year ago. Um Mohan's husband was present during the interview process and she included her husband in the majority of her responses. This implies a sense of co-dependency when it comes to coping with type II diabetes because her husband is going through the same experience. She talks the feelings of "security" and "happiness" her and her husband felt upon moving to Canada. However, she experiences "stress" when she thinks about her children living back in Iraq and hopes to be able to have them relocate to Canada as well. The family doctor who is Arabic-speaking provides a sense of solace to Um Mohan and her husband. He advises both to steer clear from stress, as it is a trigger that increases the severity of diabetes. For Um Mohana and her husband, visiting the community centre during information sessions and talking to others about their condition causes a sense of "joy" and "comfort". After the interview, Um Mohan said she felt "useful" by giving her input and participating in the study.

Ragla's experience of living with type II diabetes

Ragla's experience is structured by the death of her husband, getting support through other like-minded people, and making choices based on family member's desires. Ragla's talks about the way she relies on her husband's recommendations because of his background in medicine. Also, she finds it endearing that her husband was a "picky-eater" and as a result she needed to be careful with the meals she prepared for the family. After the death of her husband, Ragla experiences "stress" and "anxiety" because of the loss of emotional support. Another factor that causes Ragla to feel anxious

is her family doctor's suggestion to start taking insulin shots. Ragla says she "fears" taking insulin shots because she thinks her sister's health (who was also a diabetic) deteriorated after she began taking insulin shots. Ragla finds relief in talking to other friends with type II diabetes because they have a shared experience. For Ragla, her interaction with the nutritionist was impacted by her lack of English language skills. She talked about the way she mainly listened to the nutritionist and found some limitation in asking questions. Ragla's son is vegetarian and she mentioned his food choices affect her positively because her son suggests alternative to meat that are healthier. Ragla also has arthritis so she finds some physical limitations to being more active and doing every day tasks like "cutting vegetables". At times Ragla's son prepares meals and she feels "happy" and "comforted" when family members are involved in this way. Ragla mentions WhatsApp forwards as a source for health remedies and suggestions for ways to decrease the negative consequences of chronic illness.

STAGE FOUR: SYNTHESIS OF MEANING AND ESSENCES

The composite textural and structural descriptions below are part of the phenomenological data analysis process to capture the essence of a phenomenon. According to Creswell (2013), "A phenomenology ends with a descriptive passage that discusses the essence of the experiences of individuals incorporating "what" they have experiences and "how" they experienced it" (p. 79). In this case, the textural and structural descriptions below are the final steps in the phenomenological data analysis process.

Composite textural description

Living with type II diabetes as an Arab-speaking female in Ottawa is impacted by the participant's level of English language skills. This seems to define the way a

participant communicates with a health professional be it a family doctor or a nutritionist. In most cases, participants considered their interaction with an Arabic-speaking health professional to mean more than retrieval of health information, but also provides a sense of familiarity and understanding. An Arab-speaking health professional seems to aid some participants in the ability to emotionally cope with type II diabetes by providing moral support and advice. Socioeconomic factors such as educational background, income, and employment status deemed to affect the way participant's perceived their condition. For one participant an employment background in Nursing meant she understood her condition from a scientific point of view and seems less compelled to seek for information on type II diabetes. Another participant with a career in journalism seems to be more critical about the sources of information on type II diabetes and rigorously filters the information she reads. Some participants with limited computer skills and health literacy seemed to rely on their family doctor's for health information and routine check-ups. The majority of participants who all share the same religion appear to rely on God's will and supernatural ability to provide cure and/or emotional support. Through the use of phrases like *inshallah* (good willing) and *kul la yousibana ela ma kataba allah lana* (say you are not inflicted with anything not decreed by Allah) participants display an intrinsic belief in the will of Allah to define the way in which they live with type II diabetes. Despite the reliance on God's will, the majority of participants seem to share in the perspective that living healthy is their own responsibility.

Challenges that ensue to the many participants in trying to be healthy are financial limitations, weather conditions in Ottawa, and coping with other terminal illness. Some participants receive government financial support and have a limited budget when it comes to spending money on food. The wintertime impacts the price of health foods like

fresh fruits and vegetables, and limited the ability of participants to partake in outdoor activities. However, some compensate by taking part in classes and activities held at local community centers. The family is a major force that drives participants to desire eating healthy and living a healthy lifestyle. Married participants appear to highly value their husband's opinions and preferences when making health decisions. Other participants show the impact the loss of a husband could have on self-esteem and perception of self be it a natural loss like death or a divorce. The degree to which family members participate in instilling healthy behaviors for the family influences the way participants make lifestyle decisions. Therefore, participants who seem to lack support from family members are more inclined to talk about decisions made on an individual basis. Yet participants whose family members are all involved in making healthy decisions talk about lifestyle changes as a collaborative and shared experience. Generally, the availability of traditional food ingredients means participants have the ability to make traditional dishes and maintain cultural food habits. For some participants "Canadian foods" mean fast foods or convenience foods that threaten the health of younger family members. Others talk about the Canadian food culture as one to promote nutrition and healthy living through the resources provided to the public.

Composite structural description

Participants' experiences are structured by various factors such as age, educational background, and experience of a traumatic event, other terminal illness and level of acculturation. The majority of participants are part of the "senior" population and this impacts the amount of resources available. Older participants take part in many activities set for seniors at the community centre such as exercise classes, cooking classes or type II diabetes information sessions. Younger participants seem to demonstrate a

wider spectrum of health literacy with various sources for health information retrieval. Also, younger participants appear to focus on individualized ways to manage living with type II diabetes and less communal activities. Even though some younger participants seek support through support groups, overtime managing type II diabetes becomes more of a “personal journey”. Language skills impacts the way participants seek information and degree of health literacy. Participants who display a greater degree of English language mastery appear to be more comfortable with seeking information from online sources and through social media. These participants critically filter information retrieved from all sources whether it is a health professional or an online source. Other participants with lower English language skills seek health information through Arabic sources or health professionals.

The experience of traumatic events is referred to as a trigger to the onset of type II diabetes for some participants. In addition, participants living with other terminal illness are impacted by the severity of their condition when coping with type II diabetes. Additional stress and anxiety is often experienced along with and urgency to manage lifestyle changes to reduce the severity of their condition. Financial limitations seem to define whether participants had access to health foods and the amount of money participants were willing to spend on a healthy lifestyle. For some participants, healthy lives are a form of investment and are willing to spend more money on buying healthier foods. For prediabetic participants, the main focus is avoiding medication and becoming a “diabetic person”. The community centre is site where participants attend information session and lectures and are able to experience “communal support” through others with a similar religious and cultural background. The community centre also functions as an important site where newcomer participants are connected to the generalized nutritional

discourse through type II diabetes screening sessions or lectures held by local dietitians or representatives from the Canadian diabetes association.

Chapter Summary

This chapter presented the findings of the study through the transcendental phenomenological lens. The findings were displayed in four stages: epoche, phenomenological reduction, imaginative variation and synthesis of meaning and essences. During epoche, the researcher attempted to capture the internal process of eliminating assumptions and judgments on the phenomenon under study. Phenomenological reduction included both bracketing and horizontalization (clustering) of the data retrieved through journal writing and phenomenological interviewing. In the imaginative variation stage, the researcher deduced the common underlying themes that emerged from the data collected. Finally, the researcher created a composite description of the textural and structural processes derived from the data collection phase.

Chapter 5: Discussion

Experiences of Arab-speaking females living with type II diabetes in Ottawa, Ontario

Living with type II diabetes for Arab-speaking females is impacted by factors such as language abilities, religious identity, family dynamics, and efforts for integration in the community. The ability to independently utilize the English language to retrieve health information ensures individuals can easily gain access to the overarching nutritional discourse in their environment. For instance, individuals are able to read nutritional labels or ingredient lists on food products. Therefore, English language proficiency possibly impacts health literacy and one's awareness of societal expectation and standards of healthy living. Often times Arab-speaking females who are also foreign-born uptake health information and attempt to converge suggestions and recommendations to match their own social mores. Religion is an important aspect that defines the way an individual accepts and lives with type II diabetes. There is an overarching sense of protection and submission to the will of God (Allah) that brings one a sense of ease and acceptance of the chronic condition.

The family provides one with a sense of security and peace of mind when coping with lifestyle changes due to type II diabetes or any other terminal illness experienced. However, the extent in which the family is involved varies based on the level of enthusiasm of family members to be a part of the individual's life change. Individuals with a lack of involvement from family members seem to display a higher level of self-responsibility to live a healthier life and make better choices. At times the scrutiny and perceptions of other family members could drive an individual to take an active role and take "making life changes" more seriously. Efforts to integrate into the community are done at various levels often depending on the age group or occupational status of an

individual. Older individuals who are considered a part of the senior population are often involved in activities and events held at local community centers directed towards educating on chronic disease and ways to live a healthier lifestyle. Volunteer work is another form of community involvement demonstrated by Arab-speaking individuals and provides one with a sense of “purpose”. Others who are younger often have careers by which they define their sense of involvement in the Canadian community. Taking a part in nutritional programs recommended by a health professional such as a family doctor or nutritionist enables individuals to “take part in” the resources provided by the government to the public.

In addition, most individuals make connections between financial situation and the exposure to healthier food options. This demonstrates a general awareness to the impact wealth has on the ability to live a healthier life through fresh food consumption and affordability of specialized food products. To most, the wintertime is seen as a barrier to being more active outdoors and a limitation to accessing fresh foods. Overall, the majority does not consider their cultural identity is compromised by it through the ability to maintaining traditional food practices, religious identity and familial roles. The need to live healthy and eat foods to accommodate living with type II diabetes is considered a “given” and a “necessity” by most individuals. Indeed, the nutritional discourse individuals are exposed based on their varying levels of health literacy serves as a reminder and a framework by which small lifestyle changes happen.

Findings in the context of literature

What is evident from literature on the experience of Arab women with chronic illness is the way such conditions are sometimes stigmatized in the culture. Schabert et al. (2013) discuss the stigmatization of diabetes and identify the complexity of it as both

external based on others perceptions and internal in the form of self-stigma. Also they listed some causes of social stigma: blame, disgust, fear, enforcement of disease, and avoidance of disease (Schabert et al., 2013). Two participants seemed to reflect stigma in relation to blame and avoidance of disease. For one, her perception of the way her family members viewed her as a divorced diabetic demonstrates the way Schabert et al. (2013) talk about blame as self-infliction of the disease. The participant claimed to have relied on food as a form of comfort after being divorced, so her perception of being diagnosed with type II diabetes is self-inflicted. Another participant who is categorized as prediabetic talked about avoiding the diagnosis of type II diabetes by eating healthy and making more sound choices because diagnosis “is a life sentence”. The participant’s persistence to stay healthy reflects “an evolutionary drive to maintain food health for oneself and on behalf of one’s offspring” (Schabert et al., 2013, p. 7).

Furthermore, it is noteworthy to address the presence of a male family member (namely the husband) during the interview sessions with two participants. The responses of these two participants demonstrated an emphasis on the mutual process of food choice making with inclusion of the husband not as the sole decision maker. This could be aligned with emergent literature on gastro-politics and the way household food interactions are no longer entirely impacted by the needs of the male family member. Meah’s (2014) exploration of power in the domestic kitchen space concludes there is fluidity to the role of men and women resulting in diverse, diffuse, and dynamic power. Another participants mentioned the way her son’s eating habits change the food products the family shops for because he lives a vegetarian lifestyle. In addition, one participant talked about the way her son’s sometimes “get creative” and come up with family meal ideas.

Furthermore, many participants seemed to display signs of happiness and contentment with the availability of ethnic food markets where traditional and *halal* ingredients are feasible. In this way, participants seemed to associate the ability to continue making traditional dishes with a preservation of ethnic identity (Barakat, Gopalakrishna, & Lala, 2014). However, signs of dietary acculturation were evident when individuals proclaimed abandonment of “previous eating habits” associated to “life back home”. As Satia’s (2010) discussion of dietary acculturation, participant experiences display the process, which is nonlinear, but multidimensional and dynamic as they retain traditional foods, exclude some traditional food practices, and uptake new foods and food preparation techniques of the host country. For instance, a participant mentioned the decrease in the consumption of red meat that is often consumed on a daily basis in Iraqi food culture. Another participant appeared to have completely adjusted eating patterns and food choices to her new environment in Canada that when she returned home to Egypt she continued on with her “Canadian diet”. For the most part, dietary acculturation was clear through the changing attitudes of participants towards a necessity to live healthy and think of healthier choices consistent to the information suggested by a health professional or retrieved during an information session at a local community centre or hospital program.

In relation to literature on the nature of Arab culture, the varying dynamics deduced from the experience of interviewed participants display both collectivist and individualistic inclinations (Barakat et al., 2014). Literature alludes to Arab culture being identified as a collectivist culture, which defines the level of involvement and consideration of family members in choice making (Wansink, 2007; Barakat et al., 2014). Similarly to El Hassan and Hekmat’s (2012) study on dietary acculturation of Arab

immigrants in Ontario participants took into consideration their family members needs when preparing family meals. Also, participants sought moral support through familial interactions and the extent in which family members partake in the lifestyle changes of the diabetic family member (Schabert et al., 2013; Barakat et al., 2014). Yet, some participant responses hinted towards an individualistic personal responsibility over one's own state of being (Wansink, 2007). In their own new environment, some participants proclaimed a newfound freedom through community involvement in the form of volunteering or availability of avenues for social support.

Communication Accommodation Theory (CAT) in the current study

In terms of the theoretical perspective framing this study, the communication accommodation theory was appropriated to examine the way in which individuals who are part of a niche population group interact with the generalized nutritional narrative. Communication Accommodation theory (CAT) examines the ways in which individuals make adjustments during communication to decrease “social distance” in interactions (Giles et al., 1991). The applicability of CAT for the current study is based on the ability to generalize the theory to understand social interactions in a variety of contexts such as the workplace, intergroup, intercultural relations, the mass media and health clinics (Giles & Ogay, 2006). In addition, CAT does not only focus on speech processes, but includes a variety of conversational strategies intentionally and unintentionally emergent in the current study. First, the concepts of convergence and divergence occur within communicative interactions to explain communication strategies where individuals either attempt to identify or remain distinct from the other individual during an interaction (Giles et al., 1991; Jones, Gallois, Callan, & Barker, 1999). Its necessary to point out that both processes are not exclusive and often occur mutually during interactions.

In this study, communicative strategies of convergence and divergence were evident in the general structure of the data collection process, experiences of participants during interactions with health professionals and members of the community. Firstly, the interviews were mainly conducted in Arabic as an instance of convergence between the researcher and the participant. In addition, some participants practiced further convergence by trying to speak in English to accommodate the researcher's weaker Arabic language skills. Also, the researcher's decision to translate documents and journal topic questions to the Arabic language is another instance of convergence. Throughout the interview process, the researcher constantly practiced convergence by rewording questions and making something more relatable to the participant. For instance, in talking about "working out" and visiting a fitness facility:

Researcher: Do you enjoy working out?

Um Roma: I signed up for a gym. I went twice but didn't really like it.

Researcher: How come?

Um Roma: It is just a hassle cause I have to find a female-only facility. Also, I feel overly exposed if I have to work out in front of others.

Researcher: How about working out at home?

Here, the researcher attempted to converge with the experience of the participant by reflecting on own experience of working out at home. Also, the researcher tried to display to the participant an understanding of the next safest environment possible. In addition, participants at times demonstrated instances of convergence through inclusion of the researcher in discussions of cultural practices (Giles et al., 1991; Giles & Ogay., 2006. For example, phrases like "you know how it is" or "I'm sure you understand what I mean by that". Undoubtedly, the researcher's choice to conduct the interview in Arabic and share her background information created a sense of familiarity during the interview process. Furthermore, the process of divergence is defined as a strategy that leads "to an

accentuation of speech and nonverbal differences between self and the other” (Giles & Ogay., 2006, p. 327). In this study, the researcher attempted to stir away from any divergent practice to ensure participants share personal information with ease and comfort. However, the methodology utilized for the study requires the researcher to practice a level of removal from the phenomenon in order to uncover results through “Fresh” eyes (Finlay, 2012). Therefore, the researcher tried to show limited verbal and non-verbal reactions to the responses from participants. For instance, the researcher did not speak about her mother’s experience with type II diabetes or show any emotional reactions to the responses of participants. Also, the researcher used neutral phrases like “I understand” to limit emotional tangents during the interview and to maintain a level of distance with the interviewee. Other ways divergence was exhibited in this study was in the way participants’ described the role of the health professional and the nature of that interaction. For example, when a participant was asked about ways health professionals aided in diabetes management her experience was as such:

I just listened mainly and asked some questions, my English is very weak. I understood most of what she said, but again she gave me recommendations some work with my lifestyle and some do not.

Another participant talked mainly about the way in which her family doctor provides her with measurements and results implying a sense of “professional distance” between her and her family doctor. This is not to say that the interaction between participants and health professionals shows either strictly convergence or divergence. Indeed, in many instances the strategies of convergence and divergence are coexistent and emerge based on conflicting dynamics. Ragla’s description of her family doctor and her suggestions demonstrates both divergence and convergence at work:

My family doctor sometimes is a source of anxiety for me. She always tells me I have to start taking insulin shots. I do not want to because when my sister began taking insulin shots her health deteriorated. Other than that I know she is concerned. She is Egyptian and speaks my language. She understands the culture so she is very helpful and understanding.

This captures the way a patient experiences divergence through the way a family doctor's inability to identify with past experience (Ragla's sister's experience with insulin shots) and convergence with the family doctor's cultural and linguistic competence.

Moreover, in an intercultural lens CAT could be used to understand the way group membership is established through the use of "linguistic markers" (Giles & Ogay, 2006). In this study, participants all used linguistic markers to signal their faith in God's decree and their acceptance of having a chronic condition. Through the use of phrases such as *inshallah* and *elhamdulillah* participants showed their membership in a religious group and the importance of faith in coping with type II diabetes. Another instance of group membership reinforcement is not an explicit "linguistic marker" but an implied comparison of "traditional food" practices and the "Canadian diet":

Mina: Moving to Canada requires plenty of adjustments. I had to also adjust my palette. Coming from the Middle East where fresh food is found in abundance and meat is butchered daily. Generic "Canadian food" is filled with hormones and a preservative.

Khalila: When I visit my daughter's home I try to make better choices. For instance my grandchildren like to eat fast food like pizza. Yet I like to make them Moroccan food like couscous, harira, and things with vegetables. I like to integrate traditional foods.

Chapter Summary

In this chapter, the researcher began by looking at the essence of the phenomenon of Arab-speaking females living with type II diabetes in Ottawa. This involved a general discussion of the themes and codes derived from the results section. Next, the researcher

contextualized this study within the present literature on the topic in order to draw connections between this current study fits and literature on type II diabetes, dietary acculturation and immigrant experience. Also, the researcher connected the findings of this study to the CAT theoretical framework that guided this study.

Chapter 6: Conclusion

Purpose of study

This study was initiated in the hopes of bringing into focus the experiences and perspectives of immigrant Arab-speaking women living with type II diabetes and residing in a new environment, namely in Ottawa, Ontario. The two main questions this study set out to explore are, 1) how do Arab-speaking female immigrants in Ottawa negotiate traditional food and food preparation narratives in light of the nutritional discourse in Canada? and 2) how does this population group experience the process of dietary acculturation and cope with a chronic illness, namely type II diabetes?

Due to the qualitative nature of the research questions, the research methodology applied needs to be one that examines “lived experience” in order to make connections. In response to the first research question, participants demonstrated varying ways to negotiating traditional food and food preparation techniques in relation to the nutritional discourse they are exposed to in their new environment. To begin with, their perception of what the nutritional discourse entails differed based on English language proficiency-level. The ability to read and speak English expands the avenues available for health promotion and enables an increased level of health literacy. The participants who spoke little to no English viewed the nutritional discourse—communicated through health professionals and Health Canada initiatives —positively as a change of attitude towards a healthier lifestyle that involves them being more mindful of their chronic condition needs. Other participants with a higher level of competence of the English language agreed that the Canadian nutritional narrative helped promote a healthier lifestyle, but displayed a higher level of exposure to other less reliable health content either online or through commercial marketing. As discussed by Hoffman-Goetz et al., (2014), “cultural

meanings and nuances may not be the same for people without any English or French language skill...language and culture interact dynamically, with words taking new meaning as one's lived experiences in Canada shift over time and place"(p. 93).

Therefore, language is an important factor that defines the way immigrants interact and understand the cultural associations to "healthy living". When it came to traditional and food preparation techniques, the majority of participants appear to make adjustments to previous eating patterns through decreased quantity or substitution of ingredients to "healthier" options. However, the default reaction of most participants is to retain traditional diets because as one participant implied "traditional diets are healthier". Indeed, some participants seemed to see no contradiction between "traditional diets" and the generalized nutritional discourse. The issue for some participants was with fast food, convenience foods and genetically modified foods, which are readily available in their new environment.

Next, this study was intended to shed light on the way Arab-speaking females' experience dietary acculturation in Canada especially those living with type II diabetes. The methodology used needed to cater to the research questions' focus on personal experience, so the researcher carried out IPA's interpretive attitude during the entire data collection phase. Thorough interpretation of participant responses from the interviews and the journal topics indicated various factors are to be considered to make health information more feasible to the population group: language, perception of information value, religion, food affordability and age. First, the most evident feature that limits this population group's access to nutritional information is language limitations. Despite the availability of Health Canada documentation and data in the Arabic language, some participants pointed to the inability to read nutritional facts or ingredient lists on food

products because of the inability to read either one of the official languages in Canada. Furthermore, even though some participants are able to read in English, one English-speaking participant mentioned her inability to find value in the nutritional labels found on food product containers. Therefore, information on the nutritional value of food products is not limited to the ability to read in a specific language, but in the perceptual value of the information available to the individual. Goetz-Hoffman et al., (2014) consider the value individuals associate to health information to be dependent on “context, beliefs, social interactions, attitudes and culture” (p. 155). Furthermore, Goetz-Hoffman et al., (2014) talk about culture as an important component, which shapes individuals’ beliefs and reactions to certain health information. Therefore, individuals could choose to ignore or trust certain health information based value systems, such as religious beliefs. For this study’s participants, religion was a key factor that impacted the process of dietary acculturation. First, the Muslim diet requires one to eat “halal” meat and treat food as a bounty provided by God (Allah) (Mohayidin & Kamarulzaman, 2014). In addition to these religious dietary restrictions, participants’ attitudes were impacted by level of faith displayed through an acceptance in the will of God (Allah) when afflicted with a chronic condition like type II diabetes. Furthermore, most participants’ experience of dietary acculturation is impacted by the affordability of health foods, which many alluded as being expensive and hard to access. The age of participants affected the extent of health literacy and connection to popular health trends through social media with younger participants showing more interest in and reliance on social media for health information and type II coping advice. Based on a scoping review on acculturation and nutritional health of immigrants, this current study addressed some of the following questions raised in the scoping review:

How does the exposure to the Canadian food culture affect the nutrition knowledge, perceptions and beliefs of immigrant?
What are their knowledge and perceptions of the host country nutrition discourse?
Can we conciliate and/or simultaneously promote healthy traditional foods and healthy western foods?
What is the magnitude of food insecurity among immigrants? (Sanou et al., 2014, p. 30)

Arab-speaking females' experience of living with type II diabetes in Ottawa, Ontario is unique and cannot be extended to the experiences of Arab-speaking females in other provinces. In Ontario more than half of the population identify as part of a visible minority with the most recent statistics indicating Ontario is home to 43% of the overall Arab community in Canada and the other 39% residing in Quebec (Statistics Canada, 2009). The high concentration of Arab-speaking immigrants in Ontario and other urban areas in Canada impact the availability of ethnic foods outlets and the sense of belonging experienced by immigrant subgroups (Vallianatos & Raine, 2008). Therefore, health communication strategies to promote dietary acculturation in Arab-speaking female immigrants communities need to cater to the unique experiences of individuals within this immigrant subgroup. In addition, health communication must be tailored to tap into the perceptual realities of some Arab-speaking females, which are highly influenced by the Islamic tradition. The shift in gender roles as documented by previous studies of female immigrants groups in Canada also impacts the effectiveness of health information on choice making for food preparation and traditional food serving-size modification.

The communication accommodation theory was an ideal pairing with the phenomenological method to explore the research questions outlines. The concepts of convergence and divergence along with the processes of communicative interactions based on group membership helped provide a different angle to this study. The way in

which participants' speech practices demonstrated their "negotiation" with contending narratives and topics brought forth during the interview process. The use of "linguistic markers" to reinforce group membership allows for a better understanding of the importance of ethnic and religious identity in the lives of Arab-speaking females. This study expands the theoretical framework chosen through a unique application of CAT and the phenomenological approach to understand the communicative practices of a niche population group in Ottawa. The closest study to this one was done to understand the dietary acculturation of both males and females in the greater Toronto area (El Hassan & Hekmat, 2012). This current study presents closer look into individualized lives to understand the phenomenon through a more intimate perspective. El Hassan and Hekmat (2012) assessment of 24 Arab immigrants through questionnaires and a focus group discussion reveal similar results in terms of the consumption of Arab and Western food diets by immigrants. However, this current study aimed to reveal the process of dietary acculturation part a look at "Arab" vs. "western diet" but to examine holistically the factors that impacts the lives of immigrant individuals with a chronic illness.

In addition, another objective of this study was to retrieve information for a more culturally sensitive process of nutritional communication that would in turn enable better accessibility of dietary acculturation. Hence, the decision was made to interview ten individuals within a similar linguistic, religious, and gender group membership in an attempt to answer the research questions outlined. In terms of design, the researcher appropriated elements of interpretative phenomenological analysis (IPA), which is a detailed examination of lived experience and how individuals make sense of their own experience of a given phenomenon (Eatough & Smith, 2008). This interest in "individual lived experience" and the lifeworld of a participant was obtained best through the

phenomenological procedures of data collection and data analysis. Since IPA is not only interested in the narrative aspect of individual experience, but also “how the world is experienced” it blended well with process of structural description in transcendental phenomenology.

Limitations

In performing this study, the researcher faced both design and procedural limitations during data collection and analysis. In terms of design, the researcher needed to include two prediabetic patients despite the intention to recruit only individuals living with type II diabetes. Another modification with design was in the increase of the age group of the sample group from individuals between 25-55 to any individual over the age of 25. This also was due to the difficulty in finding participants who meet both the age and requirement of having a specific chronic illness. A final design limitation was in the unintended exclusion of other religious affiliations that Arab-speaking women are a part of. The recruitment process was achieved mainly through word-of-mouth, which limited exposure to the more cultures within the Arab-speaking population in Ottawa.

It is worth noting procedural limitations that have influenced the nature of the data collected for this study. The researcher needed to override part of the data collection criteria to the abilities of participants. Only half of the participant group were able to write journal topic responses while the other half were not able to due to the inability to write, time constraints, or disinterest in the activity of writing. The other major logistical limitation was interview location due to the researcher’s limited transportation capacities. The majority of interviews were conducted at the community centre and with some interviews with no rooms available there existed background noise and interruptions. A final logistical limitation experienced was in the process of document translation (consent

forms, recruitment flyer, and interview topics). The researcher consulted another impartial Arabic-speaking adult who aided in fixing these translation issues and helped looking over the translated interview transcripts.

Significance of the study

Diabetes diagnosis in Canada is expected to increase at an alarming rate from “4.2% in 2000 to 7.3% in 2010 to 9.9% in 2020” (Canadian Diabetes Association, p. 3). Also the economic burden of diabetes in Canada is on the increase from \$5.9 billion to an expected \$12.2 billion to be spent by 2010 and a rise of another \$4.7 billion by 2020 (Canadian Diabetes Association, p. 3). Given increase in the rate of diabetes diagnosis and its economic impact, this study on the experience of individuals with type II diabetes helps in bridge the gap between statistical data and embers of the population living with the condition. From a policy-making standpoint, this study goes beyond quantified results and aims to shed light on the experiences of members of an immigrant group with type II diabetes with the hopes for better health intervention. In this way, issues of food insecurity and health literacy in relation to chronic illness are contextualized through human experiences and narratives. As highlighted by Sanou et al. (2014) there is a lack of information on the factors that cause food insecurity. Also as pointed by Hoffman-Goetz et al. (2014), individuals with little health literacy are always at a disadvantage in comparison to those with higher levels of health literacy. For instance, results from this study demonstrate the discrepancy in the access to health programs and health information experienced between those with English language proficiency and those without. For instance, one participant who fluently speaks English said she was able to speak to her family doctor about dietary needs and request to be referred to nutrition programs she read about on flyers, online or other print material at the hospital. However,

participants with less English language proficiency often waited for recommendations from their family doctor.

From a health communication standpoint, this study aims to help in promoting culturally sensitive communication between health professionals and Arab-speaking females in the community. It is necessary to consider the way individuals' culture impacts the way they perceive health messages and accept health interventions. Cultural studies research demonstrates the way individuals interact with a worldview presented to them: hegemonic mode (accept wholly), negotiated mode (partially accept), and oppositional mode (reject completely) (Ahmed & Bates, 2013). An understanding of the way individuals decode information could aid nutritional promoters and dietitians when interacting with members of this immigrant group. Along with the CAT theoretical framework, the processes of convergence and divergence enable for more nuanced health campaigns designed to enhance interactions between health professionals and type II diabetes patients at every level. For example, health intervention could be made more mindful of the features in an Arab-speaking female's life that are important like religion and family.

Recommendations for future research

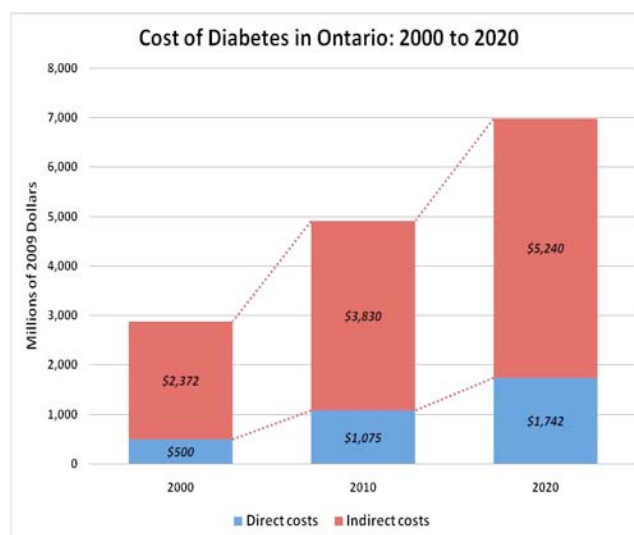
Opportunities for future research include a look into ways to modify nutritional communication to accommodate the needs and lifestyle of immigrant groups. According to recent statistics, "80% of new Canadians are from populations that have a higher risk for type II diabetes. These include people of Hispanic, Asian, South Asian, or African descent" (Canadian Diabetes Association, p. 7). Hence, future research needs to be directed towards other immigrant groups and genders to extend understanding of the various worldviews and contexts immigrant Canadians live within. Currently the

Canadian Diabetes Association (CDA) is the most active organization in Canada, which aims to support those living with diabetes, prevent the onset of type II diabetes, and find a cure for type II diabetes. Currently, the CDA is working to gain support for the Diabetes charter for Canada launched in 2014 (Appendix L). Therefore, research needs to be directed towards bringing into light the experiences of particular population groups to make type II diabetes management more accessible and realistic. This current study lightly touched on the individual dimension of health literacy and its impact on food insecurity (access to health foods and a healthy lifestyle). Future studies in the field need to continue addressing the unique experiences of Arab-speaking females with a closer look into the different nuances within this subgroup. In addition, factors like the legal status of any given participant need to be considered in future studies when examining negotiation of Canadian food discourse, level of health literacy and issues of food insecurity. Furthermore, more research on the role of health professionals and the way health information is communicated to a recent immigrant with limited language skills needs to be explored. Overall, there is a growing need for more qualitative research in the area of dietary acculturation beyond statistical data to more contextualized efforts to understand the perceptual realities of immigrant groups when faced with health communication intervention and interaction with “institutional representatives” in the medical environment.

Appendices

Appendix A

Cost of Diabetes in Ontario 2000 to 2020



Source: Ontario Diabetes Cost Model

Cost of Diabetes in Ontario in Millions of 2009 Dollars (Table 2)

	2000	2010	2020
Direct costs	500	1075	174
Indirect costs	2372	3830	524

Canadian Diabetes Association. (December 2009). *The Cost of Diabetes in Ontario*. Retrieved from <http://www.diabetes.ca/publications-newsletters/advocacy-reports/economic-tsunami-the-cost-of-diabetes-in-canada>.

Table 1: Factors and (or) attributes that influence the process of dietary acculturation

Factors influencing the process of dietary acculturation	
Demographic/individual	Age, gender, education, employment status, language, religiosity, household composition, etc.
Social and economic	Education, income/purchasing power, food availability and accessibility, number of children in the home, living with an older relative, place of residence, etc.
Ethnocultural norms	Health beliefs (such as belief in a relationship between diet and health), social integration and cohesion, shopping practices, social support, etc.
Exposure to host culture	Access to traditional media (newspapers, radio, television), peers, access to traditional supermarkets, etc.

Note: Sources: Ayala et al. 2008; Gilbert and Khokhar 2008; Satia et al. 2001; Satia-Abouta et al. 2002; Varghese and Moore-Orr 2002; Szapocznik and Kurtines 1991; Page 2006; Reichman 2006; Siatkowski 2007; McDermott-Levy 2009.

Satia, J. A. (2010). Dietary acculturation and the nutrition transition: an overview This is one of a selection of papers published in the CSCN-CSNS 2009 Conference, entitled Can we identify culture-specific healthful dietary patterns among diverse populations undergoing nutrition transition? This paper is being published without benefit of author's corrections. *Applied physiology, nutrition, and metabolism*, 35(2), 219-223.

Appendix B- Middle Eastern Food habits compared to Nutritional Guidelines

Diary products	Diary products are eaten in the form of yogurt and cheese, various milk desserts such as pudding. Feta cheese is a common cheese.
Meats	Lamb is the most commonly eaten meat. Pork is at times eaten by Christian Middle Easterners. Fish and poultry are often eaten too. Legumes are big part of the diet such as red beans, fava beans, chickpeas, and so on.
Breads and Cereals	Pita bread often accompanies meals. Filo dough is often used in many dishes.
Fruits	Fruits are often incorporated as desserts or snacks. Lemon is often used for flavoring.
Vegetables	Eggplant is a commonly consumed vegetable. Often vegetables are stuffed with rice or meat. Green and black olives is often used in food preparation.

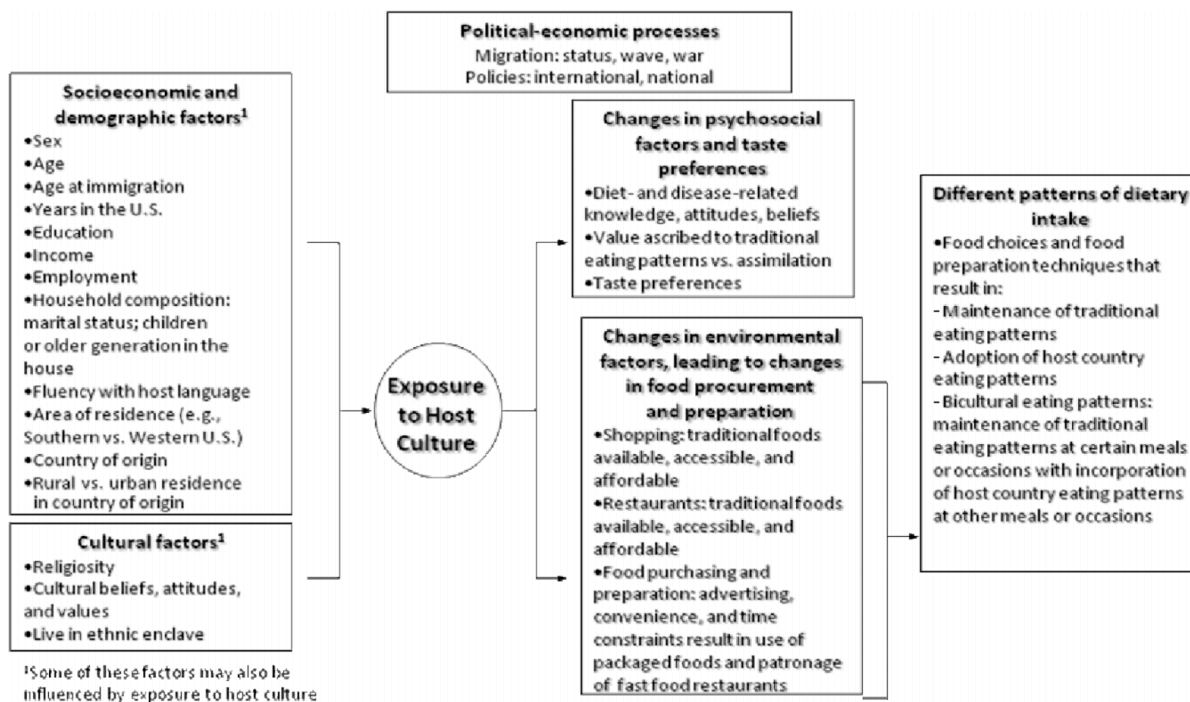
Nolan, J. E. (2009). Cultural Diversity: Eating in America--Middle Eastern. Retrieved from <http://ohioline.osu.edu/hyg-fact/5000/pdf/5256.pdf>

Table 2: Nutrition labeling in the Canadian marketplace

Table 1. Nutrition labelling used in the Canadian marketplace.		
Type of labelling	Definition	Examples
Regulated		
Nutrition Labelling	“Refers to the standardized presentation of the nutrient content of a food” (Government of Canada 2003)	Nutrition Facts table
Nutrient content claims	“A claim that describes the amount of a nutrient in a food” (Government of Canada 2003)	“Low fat” “Trans fat free” “Reduced sodium” “Excellent source of calcium”
Disease risk reduction claims	“A statement that describes the characteristics of a diet associated with the reduction of the risk of developing a diet-related disease or condition” (Government of Canada 2003)	“A healthy diet low in saturated and trans fats may reduce the risk of heart disease. (Naming the food) is free of saturated and trans fats” (Government of Canada 2003)
No specific regulations		
Front-of-pack labelling	“Systems that use nutrient criteria and symbols to indicate that a product has certain nutritional characteristics. Symbols are often placed on the principal display panel of the product, but may also be found on the side, top, or back panels or on self tags” (Institute of Medicine 2010)	Whole Grains Council's Whole Grain Stamp Heart and Stroke Foundation's Health Check logo Kraft's Sensible Solutions PC Blue Menu Pepsi's Smart Spot
Note: Definitions from the Government of Canada (2003) and the Institute of Medicine (2010).		

Schermel, A., Emrich, T. E., Arcand, J., Wong, C. L., & L'abbé, M. R. (2013). Nutrition marketing on processed food packages in Canada: 2010 Food Label Information Program. *Applied Physiology, Nutrition, and Metabolism*, 38(6), 666-672.

Appendix C- Process of dietary acculturation



Satia, J. A. (2010). Dietary acculturation and the nutrition transition: an overview This is one of a selection of papers published in the CSCN-CSNS 2009 Conference, entitled Can we identify culture-specific healthful dietary patterns among diverse populations undergoing nutrition transition? This paper is being published without benefit of author's corrections. *Applied physiology, nutrition, and metabolism*, 35(2), 219-223.

Table 3: Philosophical features of Phenomenology

Philosophical features of Phenomenology
<ul style="list-style-type: none">- A return to philosophy as a search for wisdom.- A suspension of the “natural attitude”, or prejudgments, on a phenomenon.- A belief in the intentionality of consciousness. In other words, the assumption of consciousness’ directedness (Moustakas) that keeps the mind directed on an entity despite its actual existence.- A refusal of the subject-object dichotomy because an object can only be perceived as a component of an individual’s experience.- A need to consider the philosophical presuppositions of phenomenology as an integral aspect of the method.

Moustakas, C. (1994). *Phenomenological research methods*. Sage Publications.

Appendix D- Participant profile

Participant	Gender	Age	Ethnicity	Health conditions	Education	Current profession
Alea	Female	68	Iraqi	Type II Diabetes Blood pressure	High school diploma	N/A
Khalila	Female	64	Moroccan	Type II Diabetes Blood pressure	Undergraduate degree	Retired
Jamila	Female	N/A	Iraqi	Prediabetes	High school diploma	N/A
Tamani	Female	54	Egyptian	Type II diabetes Blood pressure Breast cancer	Undergraduate degree in Journalism Post graduate degree in early childhood education	Journalist
Rehla	Female	68	Moroccan	Type II diabetes	Undergraduate degree	Retired
Mina	Female	36	Jordanian	Type II diabetes	Undergraduate degree	Volunteer teacher
Raifa	Female	66	Palestinian	Type II diabetes	N/A	N/A
Um Roma	Female	50-60	Yemeni	Type II diabetes Blood pressure	Undergraduate degree in Nursing	Language teacher
Um Mohan	Female	50-60	Iraqi	Type II diabetes	N/A	N/A
Ragla	Female	57	Syrian	Type II diabetes Blood pressure	N/A	N/A

Appendix E- Solicitation/Consent Form

Solicitation/Consent Form

Title of the study: A phenomenological Inquiry: How does dietary acculturation and the nutritional discourse in Canada impact female immigrants with type II diabetes?

Eman Katem (Primary Researcher)
University of Ottawa Communication
Student

Rukshana Ahmed (Supervisor)
DMS, 55 Laurier Avenue East, Room
11162

Invitation to Participate: I am invited to participate in the abovementioned research study for a Master's thesis conducted by (Eman Katem) under the supervision of Dr. Rukshana Ahmed.

Purpose of the Study: The purpose of the study is to look into the process of dietary acculturation and the nutritional discourse in Canada and their impact on female immigrants with type II diabetes

Participation: My participation will consist essentially of attending a 45-60 min interview with the researcher during which I will and respond to the questions to the best of my abilities. The sessions have been scheduled between January 29-February 25, 2014. I will also be asked to complete an optional protocol writing activity of a maximum of 500 words and give input in the final composite description of the phenomenon. In addition, I will be expected to keep a weeklong diet log and journal entry in which I respond to my choice of a topic from the topic list provided by the researcher. Finally, I approve/disprove (circle one) for the entire duration of my interview to be recorded using an audio recording device.

Risks: My participation in this study will entail that I volunteer very personal information, which may cause me to feel uncomfortable and anxious. I have received assurance from the researcher that every effort will be made to minimize any risks by avoiding uncomfortable topics at the start of the interview through my choice to omit any of the topics on the list provided by the researcher prior to my interview.

Benefits: My participation in this study will aid in understanding the nature of this phenomenon from my specific perspective and hopefully provide better policy decision-making in the future.

Confidentiality and anonymity: I have received assurance from the researcher that the information I will share will remain strictly confidential. I understand that the contents will be used only for research purposes in a master's thesis paper and that my confidentiality will be protected through measures taken by the researcher. Anonymity will be protected by changing names of participants, not disclosing current place of employment, or not giving descriptions of the participant past gender and age (if the participant is comfortable with it).

Conservation of data: The analog data collected in the form of interview notes, diet logs, and protocol-writing documents will be kept in a locked storage closed at supervisor's office up to 5 years from the date of the project completion. Digital data in the form of audio recordings and

correspondence between the participant and the researcher will only be stored in a password-protected handheld and laptop device for the same conservation period of 5 years. The digital data will be erased upon completion of the interview transcription into analog form. The digital copy of interview transcripts will be deleted upon submission and approval of the thesis paper by the department.

Compensation: As part of my agreement to participate in this study, I am promised a 25\$ PC gift card redeemable at any participating grocery stores.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. I also understand that my choice to withdraw from this study does not impact my receiving the compensation mentioned above. If I choose to withdraw all data gathered until the time of withdrawal will be destroyed by the researcher or returned to the participant.

Acceptance: I, _____, agree to participate in the above research study conducted by Eman Katem a Master's student in the Department of Communication whose is under the supervision of Dr. Rukshana Ahmed of the Department of Communication at the University of Ottawa.

If I have any questions about the study, I may contact the researcher or her supervisor.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5

Tel.: (613) 562-5387

Email: ethics@uottawa.ca

There are two copies of the consent form, one of which is mine to keep.

Participant's signature:

Date:

Researcher's signature:

Date:

Eman Katem

Appendix F- Questions to guide diary entries

1. What does being “diabetic” mean to you?
2. Write about the importance of food in your life.
3. Write about the ways you seek information on managing type II diabetes.
4. Write about your experience of shopping for foods at the grocery store.
5. Write about your experience talking about diabetes management with your family doctor or nutritionist.
6. Write about your opinion on “Canadian food culture” and “Canadian food”.

Appendix G- Interview Questions to prospective interview participants

1. How would you describe your experience of immigrating to Canada? How did this move impact your everyday choices?
2. Does living with Type II diabetes impact your grocery shopping habits and cooking at home? Please explain and elaborate your response.
3. How do you monitor your diabetes levels? Whose help do you seek? How important are food choices? Please explain and elaborate your response.
4. Does your family doctor help you in making healthy choices to monitor diabetes? Please explain and elaborate your response.
5. Have you been referred to a nutritionist before? If so, how do you describe your encounters/communication with the nutritionist? Were they informative? Useful?
6. Where else do you retrieve information in healthy eating? Please explain and elaborate your response.
7. Are there food items that are not available in Canada? Does that impact your level of nutrition? Please explain and elaborate your response.
8. Is it important for you to involve family and friends to ensure healthy eating habits? Please explain and elaborate your response.
9. What are some factors that you feel limit your ability to eat/live healthy? How does “sticking to the budget” shape your shopping choices? Please explain and elaborate your response.

Topic list provided before the interview proceeds¹

- Immigration to Canada
- Type II diabetes
- Eating habits
- Family
- Food choices
- Family income

¹ This topic list will be sent to the prospective participants with the protocol-writing document for them to review the possible topics to be addressed in the interview. This gives the participants a chance to provide the interviewee with input on whether there are off-limit topics.

Appendix H: Sample of Protocol Writing

* [Protocol Writing on Meaning of Type II diabetes to me] *

My mother has been living with type 2 diabetes for as long as I remember so for now it's now been over 26 years. I always feel guilty when I make my mother upset because she gets really emotional and ~~is~~ exhausted. My mother's condition gets worse when she is anxious or when she travels to visit her family in the U.A.E. she doesn't get enough sleep and attends lots of family gatherings. During these gatherings she eats really unhealthy and consumes too much sugary sweets. When we first moved to Canada my mom needed a family doctor real quick to prescribe ~~her~~ ^{her} more medication. That was a stressful time because my mom was worried anytime that she would run out of medication and not have control of her sugar levels. Whenever my mom gets sick or is in pain I feel bad. Recently she has been diagnosed with fibromyalgia which is a more severe form of arthritis. I feel her condition worsened after my father passed away 5 years ago. My mother requires more emotional support I feel now. She is really sensitive over everyday issues. My siblings and I try to comfort her and make her feel needed. It's helpful that she is a grandmother because in this way she ~~can~~ looks forward to spending time with her grandchildren and taking care of them. My mother doesn't take part in many activities outdoors. She always ~~is~~ says I want and need someone to go with me because I'm scared of falling. She ~~has~~ fell once at the steps in front of our apartment building. After that incident my mother is fearful of going out on her own. She sometimes takes my nephew with her to take walks around

Appendix I- Sample of in-text manual coding

PARTICIPANT 5

~~Rehla~~, Moroccan, 68

Duration: 30 mins

Rehla Rehla
PRECODE

I: How was your experience of immigrating to Canada?

R: I came under a work contract. I liked it because I was working with people who worked with me in the Canadian embassy in Morocco.

I: How many years have you been living in Canada?

R: I've been here for 25 years.

I: Have you adapted to the new environment here?

R: Yes I am happy and my daughter has a good education.

I: Has this move changed your daily choices?

R: Yes I used to work then I got sick so I enrolled for disability.

Now I participate in most activities directed to seniors in the community. I go for exercise classes or swimming. Also some potlucks or cooking classes on Wednesdays. If I'm not feeling well I just stay at home.

I: Has living with type 2 diabetes impacted your grocery shopping choices?

R: Yes I am scared because my sister had diabetes and she passed away. She got a problem with the colon. Now food is very expensive. I have to buy healthy foods like chicken breast is expensive. Also other things like fresh produce.

I: how do you monitor your diabetes?

R: My friends and I do chair exercises or take walks in the summer with my neighbors. I manage my diet. I am scared of type 2 diabetes.

I: Who helps you monitor your condition?

R: My family doctor is very kind. Every 3 months I go for medical assessments. Also at home sometimes I check myself if I am not feeling well.

I: how about family members?

R: Well, I'm a grandmother. I take care of myself cause my daughter works and she has children. These past few days I wasn't feeling well so I stayed at home. But my most recent medical examination shows everything is normal and functioning properly. The doctor advised me to stick to managing my life the same way so that I maintain my health. I used to have difficulty walking because of my knees. Even know when I went to the washroom the toilet is low so I had trouble sitting and getting up from the toilet seat.

I: have you met with a nutritionist?

R: Yes at times at the community centre there are people who tell us about nutrition and quantities.

I: Were you ever referred to one personally?

R: Yes I met with one for about a month in Vanier community centre. They explained to us all the right foods to choose from and the quantities. Also the exercises to do to stay active. They provided

E.C.: Senior
↓
she gives room
to more
participation
in activities

E.C. Reaction
= Fear b/c of
family history

E.C.
Self Responsibility
Health Health
= own
responsibility

E.C.
Community
Centre
= support.

PRECODE

PRECODE

Exercise a key.

Family doctor
= source for monitoring.

Appendix J- Pre-coded and Emergent codes with sample quotes

Pre-coded categories	Interview quotes
Immigration to Canada	<p>“Since I came here and saw life and saw the cleanliness and saw the respect and the individual is taken care of even animals are taken care of here. Back in Arabic nations no one cares about the ill or the less fortunate. Here even the less fortunate can live. The country supports its people”</p> <p>“I feel more free here. I also feel better because I am close to my children. They needed me because they were all married and need my help with my grandkids so I felt it helped me regain a sense of belonging. I also gained a sense of security and people here are very helpful when it comes to my immigration papers”</p>
Grocery shopping habits/food preparation	<p>“I have to buy healthy foods like chicken breast is expensive. Also other things like fresh produce.”</p> <p>“...Yes my younger daughter is the one who decides and chooses what is healthy for us to purchase as a family. My daughter Bayan helps us all. We all like to work together as a family to make healthy choices...”</p>
Role of family doctor	<p>“The family doctor is Arabic and his attitude is amazing. He understands the culture we come from and our language needs.”</p> <p>“My doctor helped me select a glucose meter- LifeFirst, which was very easy to use. My nutritionist and support circle help me make informed eating habits.”</p>
Retrieval of health information	<p>“I like to talk to others with type II diabetes to know their experience. Also, I like to read any documents on nutrition or eating healthy.”</p> <p>“...I watch television and I read French so I like to read through magazines or newspapers...”</p>
Availability of ethnic foods	<p>“Everything is available here. I can make any traditional foods here because now the ingredients are available here too. Yemen is now here in Canada”</p>

	<p>“No everything is available here. If not at FreshCo there are Arabic halal food stores where we buy meat, dates and any other traditional foods that we can not find at the local grocery stores. All foods are found here.”</p>
Monitoring of glucose levels	<p>“I do a lot of tests yearly to check if there are any changes”</p> <p>“I ask the doctor and she tells me to make sure I integrate exercise and remain active because I am prediabetic with a chance of developing diabetes to avoid having to take medications”</p>
Role of family members	<p>“My husband is happy whenever we make healthy food choices. At a certain age a person needs to ensure their weight isn’t too high”</p> <p>“...Especially when you have a family everyone works together. All the family members want to be healthy as a way to encourage and support me.”</p>
Barriers to healthy living	<p>“Yes because I am diagnosed with cancer my point of view on health has completely changed. I decided I know the benefits of living healthy and I work hard to remain healthy”</p> <p>“May Allah protect us, but main thing is money. As long as you can afford it you can buy what you’d like and be comfortable with your food choices.”</p>
Interaction with health professional	<p>“I actually do not really talk much about my condition with my doctor because he looks at everything on the screen and only informs me if there is a drastic jump in numbers on the computer.”</p> <p>“Both are very kind and speak clearly to me even though we talk in English.”</p>
Perception of “Canadian food culture”	<p>“No I prefer eating at home. If I can not make meals for the family we at times need to order in things like pizza.”</p> <p>“I feel I learned to eat healthy ever since moving here. So the concern with nutrition and health is something useful I find. Otherwise I do not really</p>

	know much about “Canadian food”. My children maybe, but not me.”
Reaction to diagnosis	<p>“The word makes me sense feelings of panic because it is a state of being I was never in before. When I was diagnosed with diabetes I panicked because I realized I need to take care of my health not only for me but for the sake of my loved ones.”</p> <p>“To be a diabetic person is very difficult because a have to take medication, to be careful on my diet (I love sweet food) a diagnostic is like a life sentence for me. “</p>
Importance of food	<p>“Coming from a family that the food is the first priority in our lives. We like fatty meat, Tagine couscous a lot of sweet food, but now that this disease is spread among us, I’m aware for my diet”</p> <p>“After my divorce of 12 years, food became my new life partner. I started indulging in food to numb the pain I felt inside.”</p>

Emergent code categories	Interview quotes
Health is happiness	<p>“...It is important for the body to be able to function and enjoy the ultimate health and happiness. As the saying goes “health without medication..”</p> <p>“...My husband is happy whenever we make healthy food choices...”</p>
Wintertime is a negative impact	<p>“. Especially during wintertime these food products are really expensive so I can not buy them. Like green apples. I like eating green apples because it has less sugar, but 1lb is 2\$ so I buy 3 pieces and they are done in a week”</p> <p>“I attend classes at the Goodlife near my place at least 3 times a week. Sometimes, I do not feel up for it especially in the wintertime. So I do not go.”</p>
Health is self responsibility	<p>“Well, I’m a grandmother. I take care of myself cause my daughter works and she has children. These past few days I wasn’t feeling well so I</p>

	<p>“I do not like to be overly nervous or anxious. My daughter is helpful and her children. I avoid any situation that makes me feel nervous and anxious. “stayed at home.”</p>
Traumatic event triggers	<p>“After my husband passed away, its mainly stress and anxiety that affect my diabetes.”</p> <p>“When I was first diagnosed with Type II diabetes, I thought that is all I will ever be-A divorced diabetic failure. To my surprise being “diabetic” changed my life to the better.”</p>
Language is definitive of information access	<p>“. She Egyptian and speaks my language. She understands the culture so she is very helpful and understanding.”</p> <p>“I do not have any problems with the language because the first step I took when I moved to Canada is learn English. I know French but I made sure I learn English.”</p>
Healthy food is expensive food	<p>“Grocery shopping requires one to be really smart because now food is expensive especially foods that are nutritious and beneficial to a diabetic.”</p> <p>“When I go shopping (temptation temptation) saying I have to buy more vegetable less couscous, less pasta, less sweets. It healthy is more expensive I feel.”</p>
Role of husband/son/family in choice-making	<p>“when I go grocery shopping my husband and I try to work together and remind one another to refrain from buying unhealthy foods.”</p> <p>“...Well, my son is now vegetarian. So I cook most foods without meat and make healthier alternatives to ensure he gets his protein alternatives...”</p>
Role of God (Allah)	<p>“We survived on a limited budget as I got financial support through welfare. But all thanks to Allah we survived.”</p> <p>“She tells me I do not eat enough bread or rice. I eat half a piece of bread or rice I just have one spoon. May Allah protect me”</p>

Nutritional labels/ingredients	<p>“I read the ingredients. Mainly the percentage of fat or sugar content.”</p> <p>“Labels are very helpful because I am able to know what I am consuming. I also have 5 crazy children who are health nuts.”</p>
Canada as a gateway for health/freedom	<p>“...I feel more free here. I also feel better because I am close to my children...”</p> <p>“Before when we were under the diplomatic visa I didn’t really like the country. I felt trapped and I felt useless to the community. Now that I am able to integrate and give to my community I love this country.”</p>
Traditional food is healthy food	<p>“So its easy to make convenient choices. I always try to bring in traditional foods because they are usually healthier and I know the ingredients I put in them.”</p> <p>“Yet I like to make them Moroccan food like couscous, harira, things with vegetables. I like to integrate traditional foods.”</p>
Community centre site for support	<p>“Now I participate in most activities directed to seniors in the community. I go for exercise classes or swimming. Also some potlucks or cooking classes on Wednesdays”</p> <p>“Yes I met with one for about a month in Vanier community centre. They explained to us all the right foods to choose from and the quantities. Also the exercises to do to stay active.”</p>
Friendly gatherings challenge	<p>“Yes for example when attending gatherings I need to make sure people are mindful of my condition. I am old enough to deal with any problems myself.”</p>
Internet as a point of reference	<p>“Very much so. Yes there is a lot of information out there. It gives you the information you need depending on the question you type.”</p> <p>“For me I like websites that explain everything. Now the Internet has a lot of information that can support you. Even Facebook. All those feeds!”</p>
Feelings	<p>“. I was referred to a nutritionist who helped me overcome the shock and make an action plan.”</p>

	“The advice given to me makes me feel comfortable and confident with my ability to manage my condition.”
Diabetes is common (normalization of chronic illness)	<p>“Diabetes is very common in my family. Most of the females on my mother’s side are diabetic.”</p> <p>“Its normal. Its god’s will and I try to manage it any way I can. But its god’s will. Now type II diabetes is very common and not as scary as it used to be.”</p>

Theme clusters and formulated meanings

Theme	Formulated meaning
Language	<ul style="list-style-type: none"> ▪ Health literacy is higher for those who speak English ▪ A health professional who speaks Arabic eases communication
Socio-economic impact	<ul style="list-style-type: none"> ▪ Food insecurity results from lack of health food affordability ▪ Having a career and a stable job makes an individual less worried about budgeting for food. ▪ Access to adequate diabetes management tools is not affected by socio-economic status
Level of integration/adaptation to new environment	<ul style="list-style-type: none"> ▪ Living in Canada longer means a higher awareness of health programs available ▪ Newcomers seem to rely mainly on health professionals and other members of the community to learn about health programs available.
Role of religion in life	<ul style="list-style-type: none"> ▪ God’s will makes living with type II diabetes more acceptable and normalizes being ill ▪ God’s will defines the way an individual copes with the chronic condition. ▪ God’s ability to heal an individual could override medication
Health as personal responsibility	<ul style="list-style-type: none"> ▪ Health is considered an individual’s responsibility despite support of family members. ▪ Staying healthy is a responsibility to make sure one is available for other family members.
Role of family/specific family members	<ul style="list-style-type: none"> ▪ Family is a site for support and healthy living reinforcement ▪ Family creates a sense of security, care, and peace of mind ▪ Family dynamics influences the way health is practiced
Role of health professional	<ul style="list-style-type: none"> ▪ Family doctor provides moral support and medical support to newcomers with little knowledge of the health system ▪ Family doctor is one of the ways individuals retrieve information on diabetes management. ▪ Nutritionists are helpful when they have an awareness of

	<p>traditional eating habits</p> <ul style="list-style-type: none">▪ An Arabic-speaking health professional is not only a site of information, but also provides a sense of familiarity.
Canadian food/culture	<ul style="list-style-type: none">▪ Canadian food culture is associated with “living and eating healthier”▪ Understanding of Canadian food culture is based on health information learned from a health professional or at lectures held at the community centre▪ Some associate Canadian food to convenience food and genetically modified.▪ Some do not consider a difference Canadian food and traditional food. It is more about eating healthy.

Appendix K- Arabic version of Canada's food guide



تناولوا الأغذية الصحية وقوموا بالأنشطة البدنية اليوم وكل يوم!

لا تنتظر أبداً اليوم...

- ✓ تناول وجبة الفطور كل صباح. فقد يساعدك ذلك على التحكم في الجوع في بقية أوقات اليوم.
- ✓ واضب على المشي كلما استطعت - أنزل من الحافلة قبل وصولك إلى المكان الذي تقصده، أو استعمل الدرج.
- ✓ واضب على تناول الخضار والفواكه في جميع الوجبات وكذلك كوجبات خفيفة.
- ✓ قم بمزاولة الأنشطة البدنية وقم من الأنشطة التي لا تحتاج إلى بذل مجهود بدني مثل مشاهدة التلفزيون أو اللعب بألعاب الكمبيوتر.
- ✓ أسأل عن المواد الغذائية التي تحتويها الوجبات التي تقدمها المطاعم لمساعدتك على القيام بالاختيارات الصحية.
- ✓ استمتع بالآكل مع أفراد العائلة والأصدقاء!
- ✓ عليك بالآكل ببطء والاستمتاع بمذاق كل لقمة!

إن تناول الأغذية الصحية والقيام بالأنشطة البدنية سيساعدكم على تحقيق النتائج التالية:

- التمتع بصحة عامة أفضل.
- الإحساس بعافية أفضل والظهور بعظّم أحسن.
- التمتع بالمزيد من الطاقة والحيوية.
- التمتع على وزن صحي.
- تنمية وتقوية العضلات والعظام.

مارسوا الأنشطة البدنية

إن القيام بأنشطة بدنية كل يوم هو الخطوة الأولى نحو التمتع بصحة أفضل والحفاظ على وزن صحي. يوصى بأن يمارس البالغون نشاطاً بدنياً متوسطاً إلى قوي لمدة ساعتين ونصف على الأقل من كل أسبوع وأن يمارس الأطفال والشباب الأنشطة لمدة 60 دقيقة يومياً. ولا يتعين عليك ممارسة جميع الأنشطة معاً، بل يمكنك اختيار مجموعة متنوعة من الأنشطة وتوزيعها على مدار الأسبوع.

ابدئي ببطء ثم زد من وتيرة التمارين الرياضية.

تناولوا الأغذية الصحية

إن الخطوة الأخرى ذات الأهمية التي يجب اتباعها للتمتع بصحة أفضل والحفاظ على وزن صحي هو اتباع دليل الأغذية الكندي كما يلي:

- تناول كمية ونوع الأغذية الموصى بها كل يوم.
- التقليل من الأغذية والمشروبات التي تحتوي على نسبة عالية من السعرات الحرارية أو الدهن أو السكر أو الملح مثل الكعك والحلويات والشكولاته والحلوى وقطع الفرانزولا والبنات والمافين، والأيس كريم والحلويات المجمدة والبطاطس المقلية وشرائح البطاطا المقلية، وشرائح "النانشو" وغيرها من الأكلات الخفيفة المألحة والمشروبات الكحولية والمشروبات بطعم الفاكهة والرطبات والمشروبات الرياضية التي تمنح الطاقة والمشروبات الساخنة أو الباردة التي يضاف إليها السكر.

Appendix L- Diabetes charter of Canada highlights

- Canadians living with diabetes have the right to affordable and timely access to prescribed medications, devices, supplies and high quality care, as well as affordable and adequate access to healthy foods and recreation, regardless of their income or where they live.
- Canadians living with diabetes have the right to fully participate in daycare, preschool, school and extracurricular activities, receiving reasonable accommodation and assistance if needed.
- Canadians living with diabetes have the responsibility to self-manage to the best of their abilities and personal circumstances, including a healthy diet and exercise. 'Unless we can reverse the trajectory of this, the health care system is going to be in jeopardy'- Sue Taylor, Canadian Diabetes Association
- Governments have the responsibility to collect data on diabetes burden, such as costs and complications.
- Governments have the responsibility to implement policies and regulations to support schools and workplaces in providing reasonable accommodation to people with diabetes in their self-management.
- Schools, preschools and daycares have the responsibility to provide a safe environment for diabetes self-management and protect children with diabetes from discrimination.

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