

FOOD INSECURITY, POVERTY AND LIVED EXPERIENCE OF HOMELESSNESS: A STUDY OF
WOMEN IN NORTHEASTERN AND SOUTHWESTERN ONTARIO

by

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Abstract

Understanding the connections between geographical location (Northern vs Southern Ontario) and gender inequalities and food insecurity, poverty, homelessness and health is vital within the current social and political context characterized by restraints in public funding. First, this study describes the experiences of poor and/or homeless women with or without dependents in two mid-size urban communities in Northeastern Ontario (City of Greater Sudbury) and Southwestern Ontario (City of London Ontario) with regard to food insecurity, homelessness, poverty and the perceived impacts on physical and mental health. Second, it identifies the profile of food-insecure women in Northeastern and Southwestern Ontario, as well as the factors associated with their general and mental health perceptions.

The study employed a sequential descriptive multi-methods approach to address the objectives. A descriptive, qualitative exploration of food insecurity experiences among poor and/or homeless women in the two regions was conducted. Data were collected through a semi-structured interview with twenty poor and/or homeless women, 10 from each of the two communities. The participants were near homeless or absolutely homeless and all had prior histories of homelessness. The interview data were thematically analyzed. Subsequently, a quantitative secondary data analysis of extracted variables including sociodemographic, health and food insecurity from the Canadian Community Health Survey (CCHS, 2014) was conducted to describe the profile and factors associated with general and mental health perceptions for 408 women in the northeast and southwest of Ontario.

The main themes were food and financial hardship, motherhood, resourcefulness and health perceptions. The quantitative findings did not capture the association between health perceptions and place of residency among food-insecure women. The general and mental health perceptions of these women were significantly related to household size, employment, worries about running out of food, inability to afford balanced meals and cutting or skipping meals regardless of where they lived.

This study's findings highlight the intersection of geography, health, gender and vulnerability to food insecurity and show that Northeastern and Southwestern women merit greater attention and support in accessing nutritious food. Such findings are important in shaping gendered public and social policies.

Keywords: *Food insecurity, Women's Health, Poverty, Homelessness, Geography*

Co-Authorship Statement

Areej Al-Hamad performed the work for this dissertation under the supervision of Dr. Carol Kauppi, Dr. Phyllis Montgomery, Dr. Jorge Virchez and Dr. Jennifer Johnson who are co-authors of the publications resulting from Chapters 4, 5, and 6 of this dissertation.

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Chapter 1

1. Introduction

Women's health, food insecurity, poverty and homelessness are emerging as major issues in Northeastern and Southwestern Ontario. Among the most important social determinants of health, these factors have significant implications for health with regard to health promotion, disease prevention and quality of life. Indeed, the complex interactions between food insecurity, poverty and homelessness among women has been neglected by public health policy. Moreover, many researchers realize the importance of addressing hunger, poverty, housing and homelessness as critical issues that are among the most important social determinants of health; these issues have significant implications for health in terms of health promotion, disease prevention and improved quality of life (Holben & Smith, 2016; Maynard, 2016; Raphael, 2008; Tarasuk, Mitchell, & Dachner, 2016b). Many researchers and policymakers have voiced concerns regarding the need to improve and promote women's health in different geographical contexts (Pan Canadian Health Inequalities, 2018; Pryor et al., 2016; Stein, Miroso, & Carter, 2017; Tarasuk, Mitchell, & Dachner, 2016a). Thus, understanding of how geographical location and gender inequalities are related to food insecurity, poverty and homelessness is vital within the current social and political context.

The determinants of health were derived from the work of Thomas McKeown (1989). He argued that substantial number of factors included income, housing and food affect health, beyond traditional medical services and their implications for health outcomes was not linear. Rather, he viewed these factors as interactional and confounding. Further, he suggested that evolving health policies must address both health and social inequities in order to promote

population health. These factors should be considered in developing health policy and in any efforts to promote the health of the population. Furthermore, McKeown stated that, given the interactions between many determinants of health, an inter-sectoral form of collaboration is required. Since this early work, contemporary authors echo McKeown claim of the importance of social determinants of health especially for at risk populations.

The current trend of health determinants in Canada has affected both the way that information is gathered about population health and how government policies are designed to promote population health (Marmot & Bell, 2010). Therefore, two competing movements have addressed various factors that affect population health. Firstly, the notion of health promotion has led to the recognition that the determinants of health encompass some aspects—such as socioeconomic factors—that were historically addressed by traditional public health and medical care services. Secondly, research on health inequalities, which was led by the Canadian Institute for Advanced Research in the 1980s, has produced evidence of health inequalities among poor women. Both movements have framed current public health policies and have been labeled as “population health” (Glouberman & Millar, 2003).

The Canadian Public Health Association (CPHA) has sought to promote a discussion on the social determinants of health, both within the public health community as well as in the general public. Success in stimulating such a discussion can serve as a catalyst for moving forward with the social determinants of health agenda in a manner that involves political leaders as well as decision makers in other sectors (Naresh, 2013). These health determinants are increasingly recognized as being part of the very foundation of human rights and public health, especially in addressing food insecurity, poverty and homelessness issues (CSDH, 2008). Indeed, reducing health inequalities in Canada is a complex task that remains a challenge for our public

health agenda and policy makers. Tackling health inequities and inequalities requires long term shared goals, constant and ongoing collaboration across various sectors and levels of government. A key strategy in addressing this challenge is through evidence-based practices for measurement, monitoring, preventing and reporting of health inequalities especially among the at-risk populations. The Pan-Canadian Public Health Network initiates the first pan-Canadian report to address Canada's health inequalities and to describe differences in the health outcomes, various daily living conditions and structural conditions that support health among various populations (Pan Canadian Health Inequalities, 2018). This report is an outcome of a collaboration by the Public Health Agency of Canada, Statistics Canada, the Canadian Institute for Health Information and the First Nations Information Governance to document Canada's health inequalities. Moreover, it assists in providing a baseline of health inequalities data that could inform policies, programs and future actions to promote health equity for all Canadians. For instance, policies that improve income inequality, including those that call and support women's participation in the workforce, could improve the overall economy of the country (Canadian Women's Foundation, 2017).

A focus on the social determinants of health within this research project may provide the opportunity to study the phenomena of food insecurity, poverty and homelessness among women and provide an understanding of the processes that underlie the formation of public policy responses in specific to women with low income or women living in poverty. It is important to realize that women's food insecurity, poverty and homelessness are shaped by socioeconomic, geographical and political contexts, which determine the distribution of power, money and resources and ultimately affect health (Marmot, Allen, Bell, Bloomer, & Goldblatt, 2012; Pan Canadian Health Inequalities, 2018; Stein et al., 2017). Yet, many scholars call for future studies

that highlight the impact of healthy foods and housing on poor and/or homeless women's health within different geographical contexts and within the current policy frameworks (Cidro, Adekunle, Peters, & Martens, 2015; Jackson, 2015; Power, Little, & Collins, 2015; Wakefield, Fredrickson, & Brown, 2015).

The ways in which poor and homeless women appraise situations and cope with food insecurity related stress under various conditions included poverty and homelessness are important in determining their relative physical and mental health outcomes (O'Gorman, 2018; Marmot, 2005; Marmot et al., 2012). Furthermore, the negative impacts of food insecurity, poverty and homelessness as social ills ultimately affect the overall productivity of women due to chronic illness, disability and social stigma (Maness & Khan, 2014).

Defining poverty is a challenging matter that is the subject of a complex, ongoing debate provincially, nationally and even globally among policymakers. It also hampers efforts to find specific approaches and measurements for determining who is poor in Canada (Collin & Campbell, 2008). Generally, poor women are defined as those who grapple with day-to-day issues of disempowerment and deprivation associated with experiences of food insecurity and homelessness due to the sociocultural factors of gender, poverty, and social exclusion (Boonzaier & van Schalkwyk, 2011). In addressing women's poverty, Canadian Women's Foundation (2017) stated that "one in 10 Canadians are poor, and 1.5 million women in Canada live on a low income". She also argued that women are more likely to be poor than others due to some systemic barriers that affect their financial stability. These barriers include that women do more unpaid work such as housework, childcare and meal preparation. Moreover, women are more likely than men to sacrifice their career opportunities and advancement in order to have work-life balance (Canadian Women's Foundation, 2017). Therefore, the double-duty demands of

life/home and work jeopardizes women's financial security and leave them at risk for poverty and homelessness.

Due to the increased number of female-headed households worldwide and their poor economic status, women need special attention and consideration when it comes to food insecurity and its effects on health, nutrition, and behavior (Ivers & Cullen, 2011). Women-lead households dependent on social assistance are at increased risk of experiencing food insecurity, which is associated with poor health outcomes (McIntyre, Bartoo, & Emery, 2014). Household food insecurity (HFI) is, in effect, a major health problem that is primarily caused by income insecurity (Collins, Power, & Little, 2014). Unfortunately, Food Secure Canada's Assembly Report (2012) revealed that approximately 3.9 million Canadians are without sufficient access to food. In 2014, around four million individuals in Canada, including 1.15 million children, suffered from some level of food insecurity, which represents nearly 13 percent of Canadian households (Collins et al., 2014). Food Bank Canada (2016) reported that more than 863,492 Canadians went to food banks in March 2016 to obtain groceries. This number represented an increase of one percent compared to the previous year. Moreover, there has been a substantial increase of 25 percent since 2013 in the number of people seeking assistance in obtaining food and the number has not declined over the last five or six years (Desjardins, 2014).

It could be argued that the uneven distribution of wealth ultimately leads to negative impacts on health. How a society decides to distribute its material resources among citizens is an important matter and poses a dilemma as governments grapple with budgetary constraints (Kauppi, Pallard, & Lemieux, 2012). Thus, governments must make it a priority to find the appropriate budgetary resources needed to address the root causes of women's poverty that lead to women's food insecurity and homelessness through the proper utilization of the provincial and

federal financial resources to reduce poverty (Schreiner, 2013). Thus, implementing national, provincial and local strategies, programs and policies to address women's food insecurity, poverty in different geographical locations and its related challenges are essential in order to enable Canada to show its commitment to economic and social rights such as the right to housing and food (Yarema, 2013b).

Homelessness is a problem that is greater than that suggested by the number of people on the streets or in shelters. According to a typology put forward by Gaetz, Donaldson, Richter, & Gulliver (2013), homeless individuals can be classified as unsheltered, or absolutely homeless, emergency sheltered, provisionally accommodated, or at risk of homelessness. Approximately 1.3 million Canadians experienced homelessness or extremely insecure housing at some point during the preceding five years and at least 35,000 Canadians access homeless emergency services or sleep outside on any given night (Gaetz, Donaldson, Richter, & Redman, 2016).

In Canada, the average length of stay in an emergency shelter is approximately 50 days, but most people are homeless for less than a month and 29 percent stay in a shelter for only one night; most manage to leave homelessness on their own, usually with little support (Gaetz et al., 2016). Despite the evidence regarding significant numbers of people experiencing housing challenges or homelessness, there is limited government support for subsidized housing in Canada and advocates are concerned that the governments may reduce it at a time when the need is great (Desjardins, 2014). Interestingly, the new national housing strategy released in 2017 invests in the provinces, territories and municipalities so all regions and communities can achieve accessible and more affordable housing (Canada's National Housing Strategy, 2017). This strategy will assist in empowering communities to stand and fight against homelessness as well as creates new opportunities for the federal government to engage in partnerships with the

community housing sector to support Canada's climate change and to develop and implement local solutions to housing challenges that are community accessible and geographically linked (Canada's National Housing Strategy, 2017). However, this strategy is not expected to fulfill the need for social housing in Canada specially among women and the at-risk populations.

1.1. Purpose of the Study

This research project describes the experiences of poor and/or homeless women in Northeastern and Southwestern Ontario that pertain to food insecurity, poverty and homelessness. Moreover, this study described the profile of food-insecure women residing in Northeastern and Southwestern Ontario, as well as identifying the factors associated with the general and mental health perceptions of these women. Also explored is how the terms and definitions of the central constructs of food insecurity, poverty and homelessness have been shaped within the Northeastern and Southwestern Ontario contexts with the potential to inform local service policy.

1.2. Significance of the Study

This study aimed to fill the gap in existing knowledge about women's food insecurity, poverty and/or homelessness in Northeastern and Southwestern Ontario and the connections with the social determinants of health. This study is an original research project that produces new knowledge by analyzing women's experiences of food insecurity, poverty and/or homelessness and comparing the situations in Northeastern and Southwestern Ontario, specifically Sudbury versus London Ontario. Food insecurity, poverty and homelessness are often go hand in hand with serious consequences and impacts on individuals and communities (Yarema, 2013a). Ponce, Lawless, and Rowe (2014) found that the complex interactions between food insecurity, homelessness and health problems among women and their dependents may create extraordinary

barriers to maintain or promote their health and health perception. Yet, exploring the co-occurrence of food insecurity, homelessness, and health problems among poor and/or homeless women in different geographical settings could improve gender and geography-specific home and/or food services programs designed to target poor and/or homeless women in Northeastern and Southwestern Ontario. In addition, at the systems level, policymakers need to emphasize the impacts of complex interactions among women socioeconomic conditions and the geography of their place of residence on their overall health. Policymakers also need to understand that these issues do not exist in isolation and that they must respond strategically; hence, the issues of health care and food insecurity, poverty and homelessness must be addressed concurrently.

My interest in conducting comparative study was to explore disparities in inequality between Northeastern versus Southwestern communities. Moreover, the aim is to examine explanations of differences, and/or similarities, among poor and /or homeless women who experienced food insecurity in the selected communities in Northeastern and Southwestern Ontario. The process of selecting research area (selected communities) was the first step in my study. After a thorough discussion with my supervisor around the selected communities to conduct a comparative study; both The City of Greater Sudbury from Northeastern Ontario and The City of London from Southwestern Ontario were selected for the following reasons. Firstly, The City of Greater Sudbury commonly referred to as Sudbury is the largest city in Northeastern Ontario by population, with a population average of 161,531 according to the Canada 2016 Census (Statistics Canada,2016). Secondly, Greater Sudbury is the most populous municipality and census metropolitan area in Northeastern Ontario (Statistics Canada, 2016). In 2018, the enumeration of homelessness in the City of Greater Sudbury revealed that homeless women comprised 34.7 % of homeless population in Northeastern Ontario (Kauppi, Pallard, Faries,

Montgomery, & Hankard, 2018). Thirdly, its population is diverse linguistically, culturally and ethnically. In the same vein, The City of London is the largest city in Southwestern Ontario and the main regional centre of health care and education. London is the most populous municipality and census metropolitan area in Southwestern Ontario, its population is around 494,069 according to 2016 census (Statistics Canada, 2016). London is becoming increasingly diverse, where one in six people in the city of London consider themselves a visible minority. As the largest city in Southwestern Ontario and according to London's 2015-2017 enumeration of homelessness results, homeless women comprised 29%, 30% and 35% of homeless population in Southwestern Ontario from 2015-2017 respectively (City of London, 2017). It is worth noting that both areas were diverse and the percentage of homeless women in Sudbury (34.7%) is almost similar to the one in London (35%); yet both areas can offer a difference and/or similar view in order to grasp and describe women's experiences of food insecurity in each of the areas studied. The comparison of women's experiences of food insecurity helps to broaden our knowledge and to give insights around the differences and/or similarities of these experiences in Northeastern and Southwestern Ontario. A thorough and rigorous search of the literatures reveals that women's food insecurity and homelessness, and the connections with geography and poverty-related social determinants of health within Northeastern and Southwestern Ontario communities are poorly addressed. Therefore, three research questions were explored in this thesis:

1. What are the experiences of poor and/or homeless women in Northeastern and Southwestern Ontario with regard to food insecurity, poverty and housing challenges, and the impacts on physical and mental perceptions of health and well-being?

2. What is the health and social profile of food-insecure women who self-identify as poor and /or homeless women and live in Northeastern and Southwestern Ontario?
3. What socio-demographic and health variables are associated with the general and mental health perceptions among food-insecure women residing in Northeastern and Southwestern Ontario?

1.3. Overview of Chapters

This dissertation follows the integrated article format, as accepted by the School of Graduate Studies at Laurentian University. The next chapter presents a review of literature on food insecurity, homelessness and health outcomes of poor and/or homeless women in different geographical and sociopolitical contexts, particularly through an intersectional lens. The focus of Chapter 3 is a detailed account of the methods used in this multi-method study. In this chapter, I present and discuss both my successes and challenges in applying the methods. Chapters 4, 5, and 6 present the study findings in the format of individual manuscripts to three different peer review, interdisciplinary journals. Chapter 7 presents a discussion of the findings and the contributions of this thesis in terms of research, practice and policy.

1.4. Terminology and Definitions

Social determinants of health: The Commission of Social Determinants of Health (CSDH) defines the social determinants of health in relation to the conditions in which people are born, grow, live, work and age, including the health system. These conditions and circumstances are themselves influenced by policy choices (CSDH, 2008).

Food insecurity is defined as inadequate access to food that stems from financial constraints (Tarasuk, Dachner, et al., 2014b).

Poverty is defined either in absolute terms by focusing on an individual's inability to obtain the necessities of life, such as food, shelter, clothing, health care and personal care—or in relative terms wherein the focus centers upon an individual's status in being worse off than average (Chappell et al., 2013). Furthermore, poverty refers to the intersections between low income and other dimensions of 'social exclusion,' including matters such as access to adequate housing, essential goods and services, health and well-being and community participation (Statistics Canada, 2012). According to Statistics Canada (2011), the term "family" refers to a married couple (with or without children), a common-law couple (with or without children) or a lone parent family. The latter category includes poor women. Poor women are defined as women who grapple with day-to-day issues of disempowerment and deprivation associated with experiences of food insecurity and forms of homelessness due to sociocultural factors of gender, poverty, and social exclusion (Boonzaier & van Schalkwyk, 2011). In particular, Indigenous women have a history of poverty, social exclusion, homelessness and food insecurity that is associated with colonialism, oppression, marginalization, and power and control dynamics (Stein et al., 2017).

Homelessness: According to the Canadian Homelessness Research Network (CHRN, 2012, p.1) homelessness is defined as: "The situation of an individual or family without stable, permanent, appropriate housing, or the immediate prospect, means and the ability to acquire it. It is the result of systemic or societal barriers, a lack of affordable and appropriate housing, the individual/household's financial, mental, cognitive, behavioral or physical challenges, and/or racism and discrimination."

Hidden homelessness is defined as "includes people who are couch surfing (staying temporarily with friends), in short-term transitional housing, staying in motels or are in institutional settings (hospital, prison) but are, by definition, homeless." (Gaetz et al., 2016, p. 22)

Health: The Constitution of the World Health Organization states that good health is a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity. Health is a resource for everyday life, not the object of living; it is a positive concept emphasizing social and personal resources as well as physical capabilities (WHO, 2016).

Public health is defined as the organized efforts of society to keep people healthy and prevent injury, illness and premature death. It is a combination of programs, services and policies that protect and promote the health of all Canadians (Public Health Canada, 2004).

Chapter 2

2. Literature Review

This chapter presents a narrative descriptive review of selected literature from nursing, allied health, humanities and social science databases. The literature review began with a primary search using SCOPUS, CINAHL, PsycINFO, Nursing & Allied Health Database and MEDLINE. General search terms were used initially, such as “homeless women”, “food insecurity”, “poor women” and “Northeastern vs Southwestern Ontario”. This review takes the form of a broad-based inquiry to produce accounts of the current state of knowledge about women’s experiences of food insecurity, poverty and homelessness. The aim of this review was to analyze critically current literature and practices in order to explore women’s food insecurity, poverty and homelessness experiences in Northeastern and Southwestern Ontario that may support future policy and practice interventions. The ultimate goal of this chapter is to identify gaps that exist in helping policy makers, social service workers and healthcare providers engage meaningfully with women who are experiencing food insecurity and homelessness and explore the broader policy context that frames their work. The reviewed literature is presented in three topical areas that include: (i) a broad examination of the social determinants of health as a policy agenda and framework in Canada; (ii) an illustration of the complex interactions between food insecurity, poverty, homelessness, gender and health in two different urban contexts (Sudbury and London Ontario); and (iii) an examination of the utilization of the available services by women with lived experiences of food insecurity poverty and/or homelessness.

2.1. Intersectionality: A theoretical and methodological orientation

Following the above overview of the historical development and the main assumptions of the intersectionality perspective, I now consider how intersectionality has developed as a valuable perspective for this research. I write as a trained nurse. I have been deeply involved in women's health my entire career. Methodologically, I started this research study with a strong belief in the utility of scientific methods (quantitative and qualitative) and intersectionality in promoting positive social change. Intersectionality was used to inform this study with an emphasis on the importance of integrating the complex interactions of the selected variables into the analysis of circumstances related to women's food insecurity, poverty and/or homelessness. Furthermore, this theory may broaden our understanding of poverty and homelessness, highlighting aspects of this existing theory that might beneficially inform future policies and the provision of services for poor and homeless populations.

Interestingly, an intersectional lens allows for the investigation of multiple health determinants, similar to a health determinants approach in that both call for the examination of the multiple dynamic factors (e.g. food insecurity, poverty and homelessness) that influence the health of individuals who have previously been ignored and excluded from health research (Hankivsky et al., 2010). Drawing on previous arguments, intersectionality demonstrates the methodological feasibility with its implications for research, policy and practice. In addition, it demonstrates the valuable benefits of de-centering women's experiences of food insecurity and homelessness through intersectional analyses. Undoubtedly, intersectionality is an innovative orientation that provides theoretical insights with an emphasis on a critical perspective to reframe the determinants of health. These determinants, such as food, income and housing, are addressed by better understanding of how complex they relate, intersect and mutually reinforce each other

(Hankivsky & Christoffersen, 2008). Yet, intersectionality contributes to a better understanding of women's food insecurity, poverty and homelessness in the context of the social determinants of health.

Intersectionality is recognized in the context of women's health, gender and health inequities, with more emphasis on its full implications for research, policy and practices (Hankivsky, 2012). Furthermore, intersectionality has the potential to enrich public health research through giving greater attention to the pathways and processes involved in producing health inequalities. Moreover, intersectional public health research may assist in both the testing and development of new theories (Bauer, 2014; Bowleg, 2012; Cho et al., 2013; Walby et al., 2012). Particularly, intersectionality is relevant to the study of women with lived experiences of food insecurity, poverty, homelessness and gender/health inequality who lack the resources for gathering information or reflexively engaging with it. Further, the exploration of ideas based on reflexive practices that connect poverty with gender can lead in a direction toward social justice (Unterhalter, 2012). Moreover, intersectionality emphasizes the structural intersection of various social categories, such as gender, place and financial constraints which contribute to health inequality, as well as the need to address women's life experiences, voices and knowledge (Krumer-Nevo & Komem, 2015).

Intersectionality has become widely used as multi-disciplinary approach for analyzing individuals' experiences of both identity and oppression (Nash, 2008). Since intersectionality is embedded in the social critical paradigm, it is used extensively across disciplines, and it is wise to engage in a study that is driven by the intersectionality approach to capture the lived experiences and the struggles of poor and/or homeless women.

Interestingly, intersectionality can be adopted with various designs for both quantitative and qualitative studies (Bilge & Denis, 2010). Furthermore, intersectional analysis is not only about analyzing the lived experiences of marginalization, but also of simultaneous privilege of complex lived realities (Bauer, 2014; Bilge & Denis, 2010; Carrim & Nkomo, 2016). Further, Bilge and Denis (2010) have argued that intersectionality is not an instrument for examining marginalized individual positions. Rather, it can be used efficiently to question forms of dominance such as class privilege, or mysterious relationships such as the oppression of gender. Shields (2008) has concluded that the political perspective of intersectionality emphasizes the different and inconsistent needs and goals of the specific groups from which a subject form her or his identity.

In fact, adopting intersectionality as a theoretical framework helps in conceptualizing the study variables, making design decisions about sampling and recruitment and about collecting and analyzing the data as well as interpreting the data by capturing the nuances of the interactions of the selected variables (MacKinnon, 2013; Price, 2011). In other words, intersectionality should be involved in every stage of the process when designing an intersectional research project. For instance, intersectionality should be considered when selecting the research participants and sampling techniques, and there should also be an intersectionality informed coding strategy to capture the nuances and the interaction of various themes and variables to reflect the effects of intersectionality in the proposed project (MacKinnon, 2013; Price, 2011). Yet, it seems preferable that planning to utilize an intersectional methodology to study poor and/or homeless women's struggles, requires adoption of techniques and strategies that grasp the nuances of the intersectional identities, inequalities and privileges of the selected research participants (poor and/or homeless women).

Intersectionality is a suitable fit for a project that explores how categories of place, poverty, gender and geography are interlocked and mutually intertwined. Particularly, because intersectionality places emphasis on the mechanism and process of how poverty is gendered, how gender is marginalized and how both are connected to the transformations of women's identities, experiences and struggles. In this vein, the literature review couches the complexity of the phenomenon of this study and the combination of multiple disadvantage, that makes intersectionality as a fruitful helpmeet for projects that search for alternatives to rigid conceptualizations of multiple and shifting identities (Carastathis, 2014; Carrim & Nkomo, 2016; Cho et al., 2013; Ranft, 2013). Further, intersectionality fits neatly and synchronizes with the Foucauldian view on power that concentrates on dynamic processes and the deconstruction of normalizing and homogenizing categories (Davis, 2008).

As mentioned earlier, the epistemological stance of intersectionality seems to enhance the researcher's reflexivity by incorporating her/his own intersectional location in the production of self-critical and accountable arguments (Carastathis, 2014; Davis, 2008). Further, it encourages feminist scholars to be engaged critically with their own assumptions when undertaking reflexive, critical and accountable feminist inquiry (Davis, 2008).

Carastathis (2014) has stressed that intersectionality has become familiar within feminist theory to posit that women's lives are constructed by various intersecting systems of oppression. This oppression cannot be seen as a singular or a binary political relation; rather, it is better comprehended as multiple, converging, or intertwining systems and categorical differences (Bowleg, 2012). Further, intersectionality is offered as a theoretical remedy to the most pressing problem of exclusion that challenge feminism paradigm (Bowleg, 2012; Carastathis, 2014; Davis, 2008).

Carastathis (2014) has postulated four main analytic benefits that are attributed to intersectionality as a research methodology or theoretical framework: simultaneity, complexity, irreducibility, and inclusivity. These benefits are different from previously accepted approaches to theorizing oppression that are characterized by their unitary or additive nature. Moreover, these analytical categories are operative and equally prominent in constructing institutionalized practices and lived experiences of marginalized women (Carastathis, 2014). Thus, intersectionality theory provides a tool to capture, frame and shape the mutually constituent nature of poor and/or homeless women's multiple identities. Further, it has evolved to investigate how race, gender, class and other categories of difference are formed through complex intersections and interdependent social processes and practices that position women differently in society as well as in organizations (Carrim & Nkomo, 2016).

From the methodological perspective, Price (2011) has pointed out that, although intersectionality has been tested as a theoretical, analytical and epistemological framework, it has been neglected as a methodological approach or process. Thus, adopting intersectionality to explore the complex challenges of food insecurity and homelessness among women may profoundly influence a gender analysis. An intersectional analysis can provide a lens through which to identify the common struggles of women in confronting the complex interplay of the factors of food insecurity, poverty and homelessness that shape health inequities. The benefits of de-centering gender through intersectional analysis made it easier to adopt an intersectional frame for this study.

In embracing the notion that intersectionality meets the theoretical and methodological demands, two claims have emerged. The first is the claim, where intersectionality examines how oppressions are experienced simultaneously. The second is the ontological claim, where

intersectionality can postulate the convergence, co-constitution, or intertwining of systems of oppression (Bauer, 2014; Bowleg, 2012; Carastathis, 2014). Far from being just a theoretical paradigm, intersectionality equips public health scholars with an analytical framework for reframing, defining, examining, analyzing, and addressing disparities and social inequality in health (Bowleg, 2012). For instance, Shields (2008) has concluded that intersectionality is a paramount paradigm for public health researchers interested in promoting positive social change as it allows them to explore the context of power relations and gender embedded in multiple social identities.

In conclusion, intersectionality is increasingly being utilized as a new innovative paradigm that seeks to understand the differences among and complexities of social locations and experiences to explore the differences in the health needs and outcomes of marginalized population (Hankivsky et al., 2010). Specifically, working in the areas of gender and women's health, intersectionality can be utilized for exploring and responding to the ways in which gender intersects with other variables such as poverty and place, and how these intersections contribute to unique experiences of women's health. Yet, an intersectional framework is the next step in the development of women's health research and policy.

2.2. Social Determinants of Health as a Policy Agenda and Framework in Canada

Social determinants of health include various factors such as social and economic, environments, housing, income, health services, and health behaviors and skills (CSDH, 2008; Dahlgren & Whitehead, 2018). The determinants of environment (geography) and gender have also been identified as essential for individual health (CSDH, 2008). The environmental and gender determinants of health have particular significance and relevance to this study, because of its focus on exploring the intersection of food insecurity, poverty and/or homelessness on

women's health in different geographical context. To date, Ontario public health standards and policies pay special attention to the social determinants of health notion in favor of health promotion and disease prevention approaches (Pan Canadian Health Inequalities, 2018; Raphael, 2008, 2012). Nevertheless, social actions and initiatives vary in their understanding and application of the social determinants of health concept in their activities. Dahlgren and Whitehead (2018) argued on their report around European strategies for tackling social inequalities in health that a special attention to SDOH based policies and actions that either reduce or increase inequities in health should be considered, because the power differential between these determinants forces the available options and constraints of achieving equity-oriented health targets. Further, Gore and Kothari (2013) have pointed toward the influence of the social determinants of health upon the nature, distribution and path of chronic diseases. An in-depth examination of SDOH phenomenon revealed that all Canadian provinces have established health goals that involve different determinants of health in improving working and living conditions, health behaviors, access to effective health-care services and Aboriginal health (Pan Canadian Health Inequalities, 2018; Raphael, 2008, 2012). These goals lead to a regionalization of the health-care system and allow health-care managers to be more engaged in inter-sectoral activities that address these determinants. In fact, many scholars call for adopting an action plans that rooted in SDOH (Pan Canadian Health Inequalities, 2018; Raphael, 2008, 2012). For instance, Raphael and Brassolotto (2015) asserted that in order to have local action on the SDH requires a complex interplay of various factors including the nature of public health, presence of Ministry of Health mandates, local jurisdictional characteristics, and politics. They argued also that the most effective way to assure the implementation of these SDH based actions

is for the Ministry of Health and Long-Term Care to mandate some activities and to develop local jurisdictional accountability mechanisms (Raphael & Brassolotto, 2015).

The underlying premise of the interaction of food insecurity, poverty, homelessness and the geographical context is that healthy choices and lifestyles including food and housing choices and public health policies influence women's health and well-being and coping skills in dealing with harsh life circumstances in healthy ways. However, the intersection of food insecurity, poverty, homelessness and geographical factors and its influence on the health of women in Northeastern and Southwestern Ontario remains unknown. This study seeks to investigate food insecurity, poverty and/or homelessness on the health of women residing in Northeastern and Southwestern Ontario from the perspectives of women in these geographical contexts. This study also recognizes the importance of gender as a determinant of health by focusing on poor and/or homeless women's perceptions of their physical and mental health and wellbeing and ways that women stay healthy. In addition, it explores gendered ways of experiencing food insecurity, poverty and homelessness and its impact on women's health in Northeastern and Southwestern Ontario.

Despite evidence that Canada is striving to develop public policies based on the social determinants of health, progress in achieving this aim has been uneven (Raphael, 2012; Raphael & Brassolotto, 2015). Further, it is a reality that Canada remains behind other wealthy countries in implementing public policy initiatives that advocate for action to address the social determinants of health (Raphael, 2012; Raphael & Brassolotto, 2015). Therefore, there is a need to call for social determinants of health-based policy-making as it is a promising strategy that can be used to address health inequities in the northern and southern Ontario contexts.

Considering the situation in Canada, and as a response to poverty and homelessness, various models of the policy process have been developed to create what Raphael calls “political health science” to correct this situation (Raphael, 2014). The previous discussion of literature confirmed that various aspects of public health policies related to the adoption of measures based on the social determinants of health such as gender, food and housing are embedded within issues of power, influence and competing interests of the business and corporate sector. Thus, an examination of the aspects of political health science, including the raw politics of power, gender, geography and influence, will be necessary.

Careful policy analysis shows that legislators and policymakers must convert proposals for policies based on the social determinants of health to community action plans and implement them. However, these action plans, particularly within the context of women’s struggles and challenges to end food insecurity, poverty and homelessness in different geographical contexts, are still in urgent needs. Therefore, various public groups must become politically active, advocating for community- specific action plans and policy changes.

Gore and Kothari (2012) have argued that there is a dearth of initiatives in Ontario that address healthy housing and eating through measures based on social determinants of health. Within the context of Canadian neoliberal political and economic policy, there may be barriers to developing healthy housing and eating policies in Northeastern and Southwestern Ontario. For instance, St-Germain and Tarasuk (2017) conducted a cross-sectional study of 455 renter households living in the 10 provinces and receiving a government housing subsidy to determine the prevalence and severity of household food insecurity. Their study findings revealed that income-based interventions and initiatives are needed to address food insecurity among low-income households receiving government housing subsidies.

Regional or local policy integration within the area of women's food insecurity and homelessness is an extremely complex task, but it is an essential part of holding governments accountable for supporting vulnerable persons, such as poor and/or homeless women. This integration could be achieved through the progressive monitoring of the outcomes and the tracking of community feedback on an ongoing basis. Moreover, this monitoring strategy could include a process of modifying legislation, standards and guidelines for any proposed policy changes. Study of the influence of geographical context on health is acknowledged as essential to a more comprehensive understanding of food insecure, poor and/or homeless women's health in Canada (Loopstra, 2014a). However, the impacts of gender, economic, social, and environmental factors on the health of poor and/or homeless women in Northeastern and Southwestern Ontario remains unclear and has received scant research attention. Moreover, the health status of poor and/or homeless women in Northeastern and Southwestern Ontario settings and how these women perceive and maintain their health are topics that are virtually unexplored.

Several scholars noted that there remain gaps in our knowledge of food insecure women experiences in different settings and the various factors that affect their health and wellbeing (Liu, 2014; Loopstra, 2014a; Loopstra & Tarasuk, 2013, 2015). This study focuses most explicitly on the interactions among gender, food insecurity, poverty, homelessness and health in different geographical context. These factors may contribute to better health outcomes and improved quality of life for poor and/or homeless women, and they merit further study. Furthermore, knowing how poor and/or homeless women in different geographical settings perceive and maintain their health could facilitate the development and implementation of effective health promotion programs and initiatives for women in these settings.

In sum, while food insecurity, poverty and homelessness are key social determinants of health and are often presented concurrently, more studies are needed to address the interaction between food insecurity, homelessness, gender and geography. Thus, to understand and address these locally relevant determinants of health within the northern and southern Ontario contexts, it is essential to engage the broader community in participatory dialogues around these determinants. Yet, formulating the next steps for community decision-makers to convince politicians to move forward with necessary legislative reforms and actions is required. Further, policy integration and modification are the cornerstone of the tasks to fight food insecurity, poverty and homelessness among women in the northern and southern Ontario contexts.

2.3. Food Insecurity and Women's Health

Household food insecurity is a tenacious public health problem affecting 3.8 million Canadians (Collins et al., 2014). Many scholars concluded that women's poverty level is increasing and based on Coalition for Women's Equality the poverty rate is at 36% for Aboriginal women; 29% for racialized women; 23% for immigrant women and 26% for women with disabilities. Single mothers had an after-tax poverty rate of 35.6% in 2004. Shockingly, 46.5% of senior women living alone are poor (Campbell & Childs, 2015; Littleton, 2018). Women are vital to all human societies. Women's work helps to maintain the society, as women perform socialization, childbearing and caregiving (Usman, 2015). The topic of women's poverty stimulates heated discussions around gender and health, as poverty is the key determinant of women's health, and poverty is gendered. It is not the matter that women experience poverty more than men, but the dynamics and pathways into and out of poverty differ for women and men (Kabeer, 2011), as well as the intersection between poverty, homelessness and health can differ for women and men. For instance, policies around poverty ignore women's

greater responsibilities of family, child care and household as well as women's struggles to deal and adapt with the constraints that prevail in their societies (Kabeer,2011). In addition, households headed by women are at higher risk of poverty since women cannot find or maintain their jobs due to childcare responsibilities. Therefore, employment could not be the solution for women's poverty. Policy-makers ought not to neglect women's social and political challenges. Understanding the pathways by which food insecurity affects women's health and wellbeing in different geographical contexts is potentially useful for creating sustainable and community and gender -specific interventions. The scholarly literature shows that there is a dearth of research, from the social justice and human rights perspectives, on food insecurity among poor and marginally housed women with or without dependent children (Carson, 2014; Collins et al., 2014; Cook et al., 2013).

Ivers and Cullen (2011) have postulated that food insecurity has a converse association with income and they have argued that “food security exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Ivers & Cullen, 2011, p. 1). This association between food insecurity and income may have important implications for women's health and well-being. Given the role of women in food preparation and as caregivers, together with the increasing number of female-headed households worldwide and their poor economic status, there seems to be an especially important need to discuss food insecurity and its effect on women's health and well-being. For instance, it has been found that food insecurity is associated with obesity, anxiety, depression and sexual behavior; poor coping strategies; and negative pregnancy outcomes in women (Huddleston-Casas, Charnigo, & Simmons, 2009; Ivers & Cullen, 2011). Furthermore, Martin and Lippert (2012) investigated why there seems to be a

consistent, strong, negative correlation between income and obesity among women, but not among men. They concluded that food-insecure mothers are more likely to be overweight or obese. Particularly, when income is limited and households face food shortages, mothers are at greater risk of obesity relative to child-free women and all men (Martin & Lippert, 2012). This finding explains the way in which women with children tend to eat cheap and unhealthy meals to save more food for their children. Thus, this research explores how household food insecurity, combined with gendered expectations that mothers are responsible for feeding their children, may offer a model for studying the vulnerabilities created by women's gender roles, poverty and health or well-being status. In fact, food insecurity and lack of access to food due to financial constraints are highly associated with poor health outcomes (McIntyre et al., 2014). Moreover, Power et al. (2015) have stressed that food insecurity is an urgent public health problem among women and their dependents in Canada because it is associated with significant health concerns. For instance, many scholars concluded that women's food insecurity co-occurs with low socioeconomic attainment, poor physical and mental health including depression, obesity, suicidal ideation and substance use problems (Maynard, 2016; Pryor et al., 2016; Stein et al., 2017; Tarasuk et al., 2016b).

From the perspective of women's mental health, researchers have postulated that maternal depression is an independent risk factor for household food insecurity in low-income families with young children. Hence, practical interventions embedded within policy recommendations to address food insecurity should be adopted to capture the complex relationship between poverty, maternal depression and food insecurity as well as to identify depressed mothers and connect them to mental health and food resources. It is a catastrophic reality that suicidal ideation among women is significantly associated with moderate and severe

food insecurity (Davison, Marshall-Fabien, & Tecson, 2015). This reality calls for urgent action targeted at various dimensions, trends and patterns of food insecurity to reduce suicide-related morbidity and mortality.

Nagata et al. (2015) have argued that social support interventions geared toward group capacity and resilience may be crucial adjuncts to improve and maintain long-term food security and health among persons living in low-resource regions. Furthermore, the pathways through which food insecurity and financial vulnerability affect women's and children's social, emotional and behavioral well-being—whether that impact is directly experienced or indirectly through the mother's emotional well-being—should be explored (Gundersen, 2013; Treanor, 2015). This exploration may provide a clearer understanding of how a community-based policy development process allows stakeholders to play a significant role in strengthening the social safety net for those with little or inadequate food and shelter.

An exploration of the literature on food insecurity reveals that there are several funded programs housed in family resource centers in Toronto that offer supports to individuals who lack of a healthy environment for their families and their children. This lack of a supportive environment and funded programs in the Northeastern and Southwestern Ontario contexts has led to women and families encountering challenges in obtaining healthy nutritious food as they struggle with negative stereotypes, feel judged and experience stress and its negative impacts (Dillabough, 2016; Evans, 2015; Hanning, Gates, Martin, & Tsuji, 2013; Kauppi, Forchuk, et al., 2015; Kellington, 2011; Senthana, Kristman, & Hogg-Johnson, 2015).

Generally, women report consistently higher levels of household food insecurity than men in Canada (Matheson & McIntyre, 2014; Tarasuk, Mitchell, & Dachner, 2014; Wakefield et al., 2015). For instance, higher rates of food insecurity in non-married households in Canada are

largely attributable to women's socioeconomic disadvantage while in married households, women appear to report higher levels of food insecurity than men (Matheson & McIntyre, 2014). Therefore, these findings suggest a possible bias in the measurement of women's household food insecurity that does not account for the sex of the individual in married/cohabiting households. It is noteworthy that this gender difference has resulted in fragmented access to care by poor and homeless women and ultimately affects their health. Argintaru et al. (2013); used a cross-sectional observational study of unmet health needs among homeless and vulnerably housed adults, including women with or without children, in three Canadian cities to examine their housing and health-care use over a four-year period. The findings of the study showed that single-parent households in Canada scored the higher rates of food insecurity. These findings suggest a possible bias in the tools employed to measure household food insecurity at the population level as they seem not to account for the gender of the respondent (Matheson & McIntyre, 2014).

Generally, household food security impacts heavily on the quality of life, and therefore interventions to improve food availability, as well as access, should be emphasized (Walsh & van Rooyen, 2015). Moreover, Ke and Ford-Jones (2015) have argued that food insecurity and hunger are significant problems in Canada, and they have stressed the need to review what is currently known about the effects of food insecurity and hunger on women and families. Various reports have shown that poverty spreads the experience of food insecurity and hunger within a household and generates concern in mothers about the future of their unborn children's nutrition as well as feelings of intense pain, helplessness and hopelessness concerning the future (Jessri, Abedi, Wong, & Eslamian, 2014; Matheson & McIntyre, 2014; Tarasuk, Mitchell, et al., 2014; Wakefield et al., 2015).

Furthermore, Ke and Ford-Jones (2015) have pointed out that nutrient deficiencies, such as iron deficiency, have a negative impact on learning, leading to decreased performance in school-age children, and also cause maternal depressive disorders. The dietary intakes of school aged children in Northern and Southern Ontario are somehow obesogenic (A. Gates, Skinner, Martin, & Tsuji, 2012). They also recommended that multi-component school nutrition programs that combine both a nutrition curriculum and healthy food practices could be one option to overcome the barriers to healthy eating in Northern and Southern Ontario communities. Thus, school-based nutrition programs and innovations such as subsidized food are an essential need, but long-term solutions lie in ameliorating the inadequate incomes of women/families. Yet, initiatives such as the establishment of food banks that promote food security for vulnerable populations are needed. Moreover, Melchior et al. (2012) concluded that a mother's food insecurity predicts some of her children's mental health symptoms, such as hyperactivity/inattention. Moreover, several scholars have argued that there are various associations between women's food insecurity and children's mental health including substance use, low school attainment and poor emotional and physical growth and development (Chowdhury et al., 2016; Cook et al., 2013; Findlay, Langlois, & Kohen, 2013). Thus, addressing food insecurity and associated problems in families could mitigate the burden of mental health problems in children. In the same vein, McIntyre, Glanville, and Hilchie-Pye (2011) have argued that milk insecurity is an example of food insecurity among poor mothers. However, the Canadian agricultural policy supports higher milk prices. Thus, inter-sectoral support for a policy intervention is required to address low-income lone mothers' struggles to purchase adequate quantities of milk (McIntyre et al., 2011). Moreover, this study's findings also suggested strategies to improve access to milk, such as adopting an electronic smart card that

would allow the delivery of lower-priced milk to poor households. Unfortunately, recommendations such as this have failed because of the positions of influential stakeholder groups (McIntyre et al., 2011). Thus, more research is needed so that practical interventions can be implemented to address various purchasing and prices trends and patterns of healthy foods, coping strategies, and its impact on the physical and mental health perceptions of food insecure women in different regional contexts.

Conceivably, as the world struggles with a food supply driven by accelerating climate change, a swelling global population with the vulnerability of an oil-based food production and distribution system, calls for the need to explore new models of food security (Nelson & Stroink, 2013). For instance, Jarosz (2014) has argued that both food security and food sovereignty discourses, as models to address food insecurity, are tied to political and economic histories, ecologies, and identities at the national and local levels. Both the terms and the discourses are dynamic; they differ and change depending upon the geographical context and the political and cultural economies of food system dynamics. Thus, we need to understand the geographies of their relational overlap as well as the differences, especially when discourses are used within various geographical contexts.

The capability approach to food security allows for better description of the three dimensions of food security, namely food availability, access, and utilization of resources, which is consistent with this study's intention and the 1996 World Food Summit definition of food insecurity (Burchi & De Muro, 2016). Within the capability approach, the variable relationship between food intake, nutritional achievement and health outcomes is thoroughly investigated by a threefold analysis : (1) food entitlements (e.g. access to food, employment status, type of employment, income, assets, savings and professional skills); (2) basic capabilities for food

security (e.g. quantity of food, food groups, age, gender, rules, norms, culture, climate, frequency of natural disasters, education, access to health services, self-reported health status and participation in household decision-making); and (3) the capability to be food secure (e.g. food quality, nutritional knowledge, cultural and religious beliefs about food products) (Burchi & De Muro, 2016). It is noteworthy that one of the key elements of the intervention planning framework for food security is the concept of “agency” where people/women are constrained by institutional and environmental factors. These factors are beyond their control; however, their actions and coping strategies can affect their health outcomes and their capabilities of escaping poverty and food insecurity. Yet, women’s social, economic and health resources need to be promoted to reduce food insecurity in different geographical contexts where there is a high poverty rate.

Indeed, women’s social status, social support and access to economic and health resources are important factors in reducing household food insecurity (Schmeer, Piperata, Rodriguez, Torres, & Cardenas, 2015). Interestingly, health geographers in Canada have engaged with food security issues, joining public health scholars and others in exploring access to food to call for more research that looks at various geographical contexts and that incorporates social and political analyses (Guerrero, Walsh, Malecki, & Nieto, 2014; Wakefield et al., 2015).

Gucciardi, Vahabi, Norris, Del Monte, and Farnum (2014) have discussed the effect of food insecurity on the individual’s ability to manage health conditions such as diabetes. Several scholars argued that diabetes management can be challenging if it is compounded with food insecurity (Amin et al., 2014; Elder & Tubb, 2014; Gucciardi et al., 2014). This is because, when people are food insecure or have difficulty in accessing food, modifying their food selection to a diabetes regimen is even more stressful. As a result, many food-insecure diabetics potentially

struggle from worsening of their condition and overall health. Yet, healthcare providers and decision makers should recognize that food security has a significant role in the prevention and management of diabetes and chronic health conditions that require diet modification.

Rodriguez, Chong, Olivera, and Escalante (2015) have noted that well-established targeted social programs should be designed in order to estimate the frequency, distribution and trends of food security among poor families and their relationship with financial factors and sociodemographic characteristics. Further, they pointed out that neglecting food insecurity may affect the development of the physical and intellectual potential of low-income people, and ultimately become an obstacle to the development of the country. Therefore, a reorientation of food policy that addresses poor women's root causes of the financial crisis, the quality of life in Northeastern and Southwestern Ontario communities, and their health and environment together with enhancing their inclusion and participation is urgently needed. In fact, the lack of understanding among planners and policymakers about the key issues related to food insecurity, its impact and health outcomes can lead to ineffective policy formulation or efforts toward solving the food insecurity problem (Sadler, Gilliland, & Arku, 2014).

To sum up, researchers and policy-makers need to understand the pathways by which food insecurity affects poor and/or homeless women's health. The pathway for women into food insecurity could be influenced by several factors. These factors include the capability approach of food security with its three dimensions of food security in the Canadian context and the social determinants of health and how it is fit into these dimensions. Such understanding will call for community specific interventions that use a capability approach that are compatible with an intersectional analysis of women's food insecurity in different contexts.

2.4. Food Banks

In Canada, food banks are agencies established by interest groups to coordinate the collection and redistribution of donated foods to needy people on a voluntary basis (Tarasuk, Mitchell, et al., 2014). Simply put, a food bank is an agency or place where people can go to receive a hamper of food free of charge (Loopstra, 2014b). The first food bank was opened in Canada in 1981 as a response to the high levels of charitable activity that was aligned with high levels of unemployment during a time of recession and due to the increased numbers of people seeking financial assistance from churches (Loopstra, 2014b). Although originally considered a temporary solution in response to food insecurity and hunger, the number of food banks in Canada continued to grow through the 1980s and 1990s and recent monitoring has suggested that the growth in their number has not yet plateaued (Tarasuk, Dachner, et al., 2014a).

Food banks have emerged in response to growing food insecurity and as a source of assistance for households in low-income vulnerable groups struggling to meet their food needs. Surprisingly, in the last three decades since food banks started to appear in Canada, there has been a plethora of research into this issue, as well as extensive monitoring of food insecurity (Tarasuk, Mitchell, et al., 2014; Wakefield, Fleming, Klassen, & Skinner, 2013). However, exploring the complex interaction between food insecurity, poverty and homelessness among vulnerable women in different regional contexts is yet to be fully addressed.

Generally, food banks remain the dominant response in Canada due to the absence of relevant public policy to address household food insecurity (Loopstra & Tarasuk, 2012). In the same vein, Roncarolo, Bisset, and Potvin (2016) have argued that, in Canada, interventions to confront food insecurity are designed at the community level and can be categorized into two basic strategies: (1) traditional strategies that offer an immediate response to the need for food

and (2) alternative strategies that target the improvement of the participants' social cohesion, capabilities and management of their own nutrition. Roncarolo et al. (2016) conducted a longitudinal multilevel study in Montreal, Quebec, Canada to evaluate the effects of food insecurity interventions on the food security status and perceived health of participants. A total of 450 participants were interviewed at the beginning of the study and again after nine months of participation in traditional or alternative food security interventions. The study findings revealed that among participants in the traditional interventions group, who accessed resources such as food banks, food insecurity was reduced, and their perceived physical and mental health improved. However, the researchers were constantly questioning whether traditional interventions such as food banks are the most appropriate and effective solution to overcome food insecurity. Similarly, Schreiner (2013) has concluded that a healthy food system and well-organized food bank operations may benefit our economy, health and communities. She also argues that it may enrich our health and quality of life. Thus, reducing hunger and advocating a strong local sustainable food system and food banks should be at the top of our priorities every year.

Canada is an affluent country, but unfortunately some of its citizens are still dependent on charitable food assistance and the impact of food insecurity on the vulnerable who are reliant on social assistance programs is neglected (Wakefield et al., 2013). While food banks are currently the primary solution for giving immediate assistance to households struggling to meet their food needs, food banks in Canada remain dependent on donations and volunteers to meet clients' needs (Tarasuk, Dachner, et al., 2014b). Therefore, these findings demonstrate the reliance of federal and provincial governments on food charity to eradicate food insecurity and highlight the need for food-based public policy recommendations. Unfortunately, food banks have limited

capacity to respond to the needs of poor and/or homeless women who have distinct challenges and who constantly seek assistance and sadly food banks can only achieve a balance when they minimize demand through restrictions on client access (Tarasuk, Dachner, et al., 2014b).

Ironically, while food banks offer a solution to alleviate food insecurity and poverty, the sensitive and emotional issues around whether food banks offer a desirable approach toward vulnerable end users and the effects of charitable giving on user's emotions have also been raised (van der Horst, Pascucci, & Bol, 2014). Interviews with 371 low-income Toronto families revealed that the majority had experienced some level of food insecurity, but only 23 percent had used a food bank. The reasons behind avoid using food banks were identified as resistance and access barriers. Indeed, shame was frequently reported by food banks users as a significant emotion; this harsh emotion could be justified due to several factors such as the content of the donated box, the interaction with volunteers and the perceptions of the user's positioning in a social hierarchy (van der Horst et al., 2014).

Loopstra and Tarasuk (2015) have reflected on the insights afforded by the regular measurement and monitoring of household food insecurity in Canada based on information on food bank usage by the population. They argued that the number and characteristics of people using food banks provide a non-representative subset of the food-insecure population. Further, they concluded that the characteristics of the subgroups that access food banks are based on the nature and quality of food bank operations and the severity of food insecurity. Thus, data on household food insecurity and food bank usage should be regularly collected, monitored and utilized in order to make appropriate policy recommendations regarding interventions to address the problem of access to food by vulnerable populations.

Jessri et al. (2014) evaluated the content of food hampers distributed by the University of Alberta Campus Food Bank from a food quality perspective. They concluded that although all the hampers provided adequate energy, the fat and animal protein content was low. Compared to the dietary reference intakes (DRI) recommendations, the requirements for milk and alternatives and for meat and alternatives were not sufficiently met for clients and none of the food hampers met the DRI recommendations for vitamin A and zinc. Thus, hamper contents should be monitored, observed and improved to meet clients' needs. The authors also stated that the nutrients missing from the food hampers could be provided by adding fresh fruits, vegetables and dairy and meat products; however, these foods items are more expensive than processed food items.

Household food insecurity is a dynamic process that is influenced by changes in income levels and expenses. In fact, household food insecurity can be classified as chronic (long term) due to insufficient income levels for extended periods of time, or acute (short term) when households experience an income deficit due to, for example, health deterioration or increases in housing rent and energy costs (Emery, Fleisch, & McIntyre, 2013). While food insecurity is a greater risk for low-income families, the risk still exists across different income levels. The reality behind households that experience food insecurity is that they lack the capacity to balance consumption against any unexpected changes in their income (Emery et al., 2013). The challenge of adjusting the household budget to account for rising energy and rental costs may lead these families to choose between "house or food."

Cushon, Creighton, Kershaw, Marko, and Markham (2013) have highlighted the importance of undertaking contextual studies to find ways to improve access to food. This improvement could be achieved by exploring the patterns of individual food consumption,

mobility, various dimensions of food access and economic access. While the causes of food insecurity are rooted in income insecurity, there are no readily available solutions to food insecurity among women. Indeed, the suggested solutions have been food-based activities at the municipal level across Canada that include “charitable,” “household improvements and supports” and “community food systems” initiatives (Collins et al., 2014). These initiatives are basically used an empowering supportive approach. However, these food-based solutions to an income-based problem have limited reach and impact on food-insecure households (Collins et al., 2014). In addition, Carson (2014) has stated that the political implications of food banks and food insecurity should be embedded within a comprehensive understanding of the political impact on the end users and at the community level. Yet, the implementation of community or regional-specific policies and procedures within food banks, are key approaches that are declining the possibility of political conceptualization of women’s food insecurity.

Northern Canadians face high levels of food insecurity, especially among First Nations, Métis and Inuit populations, and many factors have contributed to food insecurity in northern communities included low income, the high cost of local store-bought foods, and decreased access to traditional foods (Food Banks Canada Report, 2016). On the other hand, in southern Canada, the cost of food is among the lowest in the world and shockingly, more than 850,000 Canadians residing in southern Ontario access a food bank each month just to make ends meet (Food banks Canada Report, 2015, 2016). Therefore, in northern Ontario the high cost of food combined with a lack of job opportunities and decreasing consumption of traditional foods create serious and alarming public health emergency (Food banks Canada Report, 2015, 2016).

From a health perspective and building on existing knowledge, Cook et al. (2013) have argued that an underestimation of the adverse health outcomes associated with exposure to food

insecurity has increased the prevalence of chronic health conditions among children and mothers. Similarly, various scholars have argued that improve the intake of specific nutrients and foods, such as fruit and vegetables, may reduce the rate of non-communicable diseases in adults and improve perinatal outcomes in women (Black et al., 2012; Cook et al., 2013). Yet, food subsidy programs are a promising solution for pregnant women and children that should aim to focus on improving nutritional status over a longer and sustained period.

Minaker, Elliott, and Clarke (2014) have postulated that the perceived costs and difficulty of obtaining allergen-free foods at food banks and feeling unsafe at discount grocery stores have a destructive effect on the health outcomes of the poor. These challenges constitute barriers to access to food by the working poor, immigrants, women living in poverty, and food bank users. In fact, food subsidy programs through special food allowances have an impact on the health and nutrition of adults and children with special food considerations such as diabetic food, gluten free or lactose free food in low-income countries.

In summary, food insecurity is a significant problem for poor and/or homeless women. There is a need to increase the availability and accessibility of food for women in different geographical contexts of various communities. Further studies need to investigate and explore the prevalence, trends, patterns and impact of food insecurity in relation to poor and/or homeless women, which may increase awareness of the problem and lead to the formulation of effective strategies to reduce its prevalence.

2.5. Poverty and Women's Health

Despite the efforts that have been made to reduce poverty, the problem persists and has continued to prevent women and their dependents from living well and contributing to national

growth and development (Usman, 2015). This problem calls for urgency in analyzing the condition of women living under persistent poverty with a view to suggesting solutions that can effectively deal with this issue in the northern and southern Ontario contexts. It is notable that the term *feminization of poverty* was originally developed by Pearce (1978); the author reported a trend and pattern of increased poverty among women. Indeed, the feminization of poverty has become a globally accepted term that denotes the burden of poverty upon women (Chant, 2012). This term encompasses three interrelated notions. These notions are, first, that women are poorer than men; second, that the prevalence of poverty among women is increasing relative to men over time; and third, that the growing poverty among women is connected with the “feminization” of household control (Chant, 2012). Further, Bastos, Casaca, Nunes, and Pereirinha (2009) have concluded that poverty is not a gender-neutral condition as the number of poor women exceeds the number of poor men due to various factors such as the labor market, lone motherhood, aging and education. However, the feminization of poverty is often used without adequate specification and does not necessarily highlight the aspects of poverty that are most relevant to women within the northern and southern Ontario communities (Chant, 2006). Women, as a vital group in any community, too often face distinct challenges such as food insecurity and homelessness as rates of poverty have fluctuated over several decades. Thus, incorporating a gender perspective into explorations of poverty among women can assist in developing gender-specific poverty alleviation measures.

The exploration of the different trends and patterns of food insecurity, the housing challenges and the effects of exposure to poverty among women is a demanding task that requires firm action from decision makers and policymakers in the northern and southern Ontario contexts. For instance, Abraham (2014) has reported that implementing the “Live Below the

Line” initiative to raise awareness and help eradicate extreme poverty revealed a tragic reality. This initiative challenged parents to eat and drink on \$1.75 Canadian dollars per day. This challenge was aimed at assisting us to understand the reality of parents/women living with extreme poverty who make sacrifices to ensure that their children are fed. This challenge echoes what Ionescu-Ittu, Glymour, and Kaufman (2015) have argued that the child tax benefit indicates the government’s awareness of the impact of poverty on children, women and families. Yet, a relatively small monthly income supplement such as the Universal Child Care Benefit that gives parents \$100.00 monthly for each child up to 18 years may be considered as an innovative model that could result in a significant reduction in food insecurity at the population level, with larger effects in vulnerable groups. While it is known that massive efforts are required to work toward policy revisions and to develop initiatives that target women’s poverty, it is worthy to be engaged in critical analysis to explore women’s experiences of poverty and its related symptoms such as food insecurity and homelessness (Williams et al., 2012).

Hayhurst, Dietrich-O'connor, Hazen, and Landman (2013) have explained that, advocates and practitioners often know how policies, strategies and best practices can be strengthened to influence policies pertaining to food insecurity and homelessness at the local level. However, these local actions can be viewed as the last choice when progressive ideas fail to succeed; yet local contributions can be significant in pragmatic ways as evidenced through community plans and initiatives. Thus, reinforcing the implementation of community-based or local programs and policies to solve poverty and its related challenges are important priorities for Canada. Moreover, Canada needs also to show its commitment to economic and social rights such as the right to housing and to food and reforms are needed at both the provincial and local level to prevent women’s poverty (Ballard, 2011). Moreover, Z. Zhang et al. (2013) have argued that an adequate

income improves individuals' health-related quality of life. Thus, exploring the impact of poverty and its manifestations including food insecurity and homelessness may result in valuable recommendations for planning economic and public health policies to improve the health of women living in poverty within different regional contexts.

As is the case with any concept, the definition of poverty is bound up with manifestations in the areas of food insecurity and homelessness. Thus, the task of defining poverty and its connection with other social ills including food and housing issues is becoming a challenge. For instance, Yoshikawa, Aber, and Beardslee (2012) have proposed definitions of poverty that encompass the conceptual and empirical challenges of predicting the causal relationships and mechanisms through which poverty appears to affect families and children's mental and behavioral health. Further, they describe strategies and recommendations to directly eradicate poverty with more emphasis on the implications of these strategies for prevention purposes. Similarly, Seguin et al. (2012) have concluded that children of non-European, immigrant mothers and those from single-parent families are most likely to be poor and live in chronic poverty during the first 10 years of their life in Canada. Hence, more effective public policies and initiatives should target women and their children to mitigate poverty and its related health issues.

In line with the preceding, Savadogo et al. (2015) have pointed out that poverty assessments and measurements in developing countries are defined in monetary terms, where a household is defined as poor if its income is lower than a predefined poverty cut-off. However, these measures fail to recognize the complex nature of poverty, neglecting women's perception and definition of poverty, yet leaving them voiceless and powerless in the poverty identification process. Ponic and Frisby (2010) have argued that the notion of inclusion should be critically

investigated when working with marginalized women to address their exclusion and related health issues. This investigation of marginalized women inclusion may aid our understanding of its beneficial outcome as a health promotion strategy from the perspectives of women living in poverty. Further, it will assert that inclusion is achievable and desirable for marginalized women through receiving appropriate services such as food and housing initiatives.

The status of socially marginalized women is strongly connected with tremendous social problems, poor housing and food circumstances and poor health and well-being (Pedersen, Gronbaek, & Curtis, 2012). This reality illuminates the need for more incorporation of health promotion initiatives into social work. Kehler (2013) has suggested that race, class and gender are the determinants for the predominant political, social, health and economic inequalities. Thus, poor women's access to social services, resources, opportunities and education can be extremely restricted when they face racism, economic discrimination and sexism. As a result, women may face chronic poverty as it intersects with these other forms of marginalization and they live with chronic poverty. Another important aspect is what Hongguang (2015) has described as the gender-sensitive classification of human poverty, and who has revealed that the rate of women's human poverty is higher than men's. Therefore, women's human poverty has become connected to the dialogue deserving the utmost attention from all sectors of society. From a health perspective, it is essential to explore the effect of the delivery of health services to socially disadvantaged populations in terms of health-care equality delivery. Dahrouge et al. (2013) have argued cogently that patients of low socioeconomic status had fewer visits to health services compared to those with high socioeconomic status. This raises the concern that the provision of specialized care as well as an assessment of the potential impact of these services in different geographical contexts among vulnerable groups is required.

Recently, a distinction has been made by the Canada Revenue Agency between preventing poverty and alleviating poverty where there are no longer efforts to prevent poverty around the world, various recommended efforts can only alleviate poverty (Beeby, 2014). This distinction has been raised due to the fact that preventing poverty might benefit people who are not poor (Beeby, 2014). In the same vein, Abdussalam, Johari, and Alias (2014) have utilized generic theory or (blaming the system explanation) to define the causes of poverty, where poverty is caused among women by the system and society as opposed to the causes of poverty being due to the individual poor women themselves.

In conclusion, although there are several causes of women's poverty, these causes cannot be blamed on the individual poor person; rather, the blame should be directed toward the socioeconomic and political system and the entire society (Abdussalam et al., 2014). Most especially, the government should be aware of the many economic and social difficulties facing poor women. Due to inequality in the distribution of national income and resources as well as ineffective social and economic policies, the poverty scenario continues to reoccur on a daily basis, which in turn aggravates poverty and homelessness.

2.6. Homelessness and Women's Health

Homelessness is a problem with multifaceted implications such as social, medical, economic, political and other implications (Sarajlija, Jugovic, Zivaljevic, Merdovic, & Sarajlija, 2014). Homeless women comprise a significant portion of the total homeless population and may face multiple life challenges including mental illness, substance abuse and trauma. Furthermore, women who are homeless may experience difficulty in gaining access to resources such as shelter, food and health care (Maness & Khan, 2014). Despite a large number of studies, reports

about patterns, trends and health-related challenges of homeless women remain sparse (Sarajlija et al., 2014).

Somerville (2013) has emphasized that women's homelessness is a multidimensional phenomenon and the human element of this phenomenon should not be neglected. Indeed, the evaluation of the concept of women's homelessness should be carried out with realist applicable approaches that recognize the underlying pathways that cause women's homelessness. In particular, middle-aged and older homeless women have unique health and social service delivery needs (Salem & Ma-Pham, 2015). These needs can be classified as health-care needs with related challenges, sexual life decisions, employment challenges, availability of support systems and development of future program planning (Poremski, Whitley, & Latimer, 2014; Salem & Ma-Pham, 2015; Sarajlija et al., 2014).

The importance of exploring women's lives, living arrangements, experiences and needs has changed over time. Specifically, women with or without dependent children suffer from a range of complex issues, consistent with experiences of homelessness, food insecurity and profound social exclusion. Cameron, Abrahams, Morgan, Williamson, and Henry (2015) have reported that, although women often appreciate the support they receive, the majority have reported that services were fragmented and rarely personalized to their needs. Given the multiple demands mothers face, a failure to recognize their unique needs may contribute to intergenerational legacies of homelessness and mental health problems. For example, Zabkiewicz, Patterson, and Wright (2014) have stressed the association between parenting status and mental health among homeless women. Their results revealed a relationship between long-term homelessness and mothers' risk of poor mental health. Thus, an exploration of the physical, psychological and mental health problems of homeless women with or without children is

urgently needed. Furthermore, a study examining the differences among homeless women caring for children and solitary homeless women revealed that the incidence of substance abuse problems and borderline personality disorder was higher among women caring for children than among solitary homeless women. (Welch-Lazoritz, Whitbeck, & Armenta, 2014). Moreover, Bassuk and Beardslee (2014) have stressed that homeless mothers experience high rates of major depressive disorders compared with the general population due to their circumstances and struggle to protect their families. Further, children living with a depressed homeless mother have poorer medical, mental health and educational outcomes. Thus, adapting and implementing services and initiatives to serve homeless families/women should become a top priority in the Canadian public health agenda.

Spiegelhaar and Tsuji (2013) have stated that the regional context has been, and continues to be, a major focus when questioning policies related to the elimination of women's homelessness. Unfortunately, policymakers at the provincial and federal levels have ignored geographical considerations as a serious factor affecting women's health in northern and southern Ontario. Yet, exploring the impact of women homelessness as a social ill requires engagement in regional-based dialogue for social policy change; it also requires the involvement of women with lived experiences of food insecurity and homelessness as well as other key partners, such as service providers, the government, non-profit organizations and the media, to modify the current situation.

Tutty, Ogden, Giurciu, and Weaver-Dunlop (2013) have pointed out that violence from intimate partners is a significant factor that leads many women to homelessness. Simply put, when abused women and their children leave their homes because of partner abuse, they may become homeless and eventually they seek residence in a shelter for woman abuse. Further, Tsai,

Mares, and Rosenheck (2011) have concluded that supported housing programs may be a successful solution in finding housing for homeless women. Thus, special considerations may be required for some women who travel long distances between their home communities and women's shelters.

As it is a complex and ongoing endeavor, women's homelessness requires serious and sustained efforts to reduce or eliminate it. For instance, Teruya et al. (2010) have conducted one of the largest and most comprehensive studies of the health of homeless women to date, with data from 1,331 women residing in Los Angeles in the United States, to explore the health, race/ethnicity and health-care disparities among homeless women. Their study's findings revealed that women suffering from drug addiction, violence or depression were most in need of health care. Their findings also suggested specific considerations in targeting and meeting the special health-care needs of homeless women of different racial/ethnic groups. Although there is general agreement that homelessness is an increasing problem among women and that it poses a considerable risk to their health and psychological well-being, little is known about effective interventions for this unique group (Speirs, Johnson, & Jirojwong, 2013). Yet, designing effective physical and psychosocial interventions to assist homeless women and improve their health is crucial.

Saddichha et al. (2014) have concluded that incarceration and homelessness are closely connected. Not surprisingly, homeless individuals may have a harsh life journey that starts with possible exposure to traumatic episodes in their childhood. These episodes may lead them to be put into foster care, leave their homes, be initiated into substance use and experience addictions with frequent exposure to traumatic incidents rendering them homeless and vulnerable to incarceration and mental illness (Roy, Crocker, Nicholls, Latimer, & Ayllon, 2014; Saddichha et

al., 2014). In the context of victimization and social justice, Roy et al. (2014) have pointed out various correlates of victimization such as female gender, history of child abuse, and depression. Furthermore, homeless women with children and severe mental illness have higher rates of criminal behavior and involvement, both with the criminal justice system and victimization compared to housed women without children.

To satisfy the needs of homeless women, employment options should be emphasized. However, the rate of unemployment among homeless individuals is estimated to exceed 80 percent (Poremski et al., 2014). This result could potentially be explained by the high prevalence of mental illness among homeless individuals (cf. Kauppi, Pallard, Hankard, Faries & Montgomery, 2019). The concurrent nature of homelessness and mental illness is accountable for raising several barriers to employment among homeless women. These barriers may include drug addiction, having a criminal record, lack of childcare support, and inadequate psychiatric care (Padgett, Stanhope, Henwood, & Stefancic, 2011; Palepu et al., 2013; Poremski et al., 2014). Therefore, the barriers to employment among homeless women should be investigated and a call for future strategies that may propose employment initiatives to enhance employment opportunities is needed.

Generally, satisfying the needs of homeless women will foster their intention to change and lead to a perceived improvement in their quality of life. This fact is consistent with the study conducted by Perreault, Jaimes, Rabouin, White, and Milton (2013) that examined the effects of offering a structured vacation in the countryside of the province of Quebec to homeless individuals (the Urban Breakaway Project). The participants resided in a countryside setting where their basic needs were met, and which offered a climate and opportunity for socialization, peer support and personal growth. Interestingly, the participants experienced the greatest changes

in relation to mood, leisure, appetite, physical condition and self-esteem. Furthermore, the participants, regardless of their age, reported that they were satisfied with services obtained, and their satisfaction was significantly correlated with the perceived improvement in their situation.

It is a truism that homeless mothers constitute a growing and vulnerable cohort (Gultekin, Brush, Baiardi, Kirk, & VanMaldeghem, 2014). This is due to violence, poverty, social isolation and a lack of informal support, which ultimately contribute to homelessness. Yet, failure to support or inability to meet the needs of this target population by the current programs and services may end up with catastrophic failure that affecting society development.

Chambers et al. (2014) conducted a study on 522 homeless women with and without dependent children in Toronto, Canada. The study aimed to explore the risk factors for mental illness and to determine whether the effects of the risk factors for mental health are modified by the presence of dependent children. The study results revealed that poor mental health is associated with some pressing concerns including access to social support, physical/sexual assault, presence of a chronic health condition and presence of a drug use problem. This result is consistent with the finding of Notaro, Khan, Kim, Nasaruddin, and Desai (2013), who concluded that the homeless clients of a free clinic had worse health than did the clients of a general clinic. This finding concluded that the utmost intention and effort is needed to improve the physical and mental health of this population, which can be achieved by adopting accessible health-care delivery models.

Turning to another example of housing stability and its relationship with women's health, a study was conducted by Duff et al. (2014) to examine the correlates of barriers to pregnancy and mothering among sex workers in Vancouver, Canada. A prospective cohort of 399 sex workers was involved in the study. Lower education, homelessness and a history of injecting

drugs significantly correlated with pregnancy outcomes and mothering barriers such as poverty, child protection services, policing, lack of support services. These findings call attention to a critical need for non-judgmental health and social service practices and policies to respond to the unique challenges that face these women. Further, there is a pressing need for programs and initiatives to address intersecting aspects of poverty, health literacy, stigma, and substance use among sex workers.

From the Francophone perspective, Benoit, Lavoie, Muray, Watson, and Beaudoin (2013) conducted a study to explore the vulnerability of Francophone single mothers at risk of homelessness in northern Ontario. The study results demonstrated significant vulnerabilities among these women, particularly in relation to their continual struggle in a linguistic minority context. In addition, the complex stigmatization (economic, linguistic and gender relations) calls for a broader consideration of the resilience of these women in their life path from poverty to social exclusion, and vulnerability.

It is important to realize that there was limited government support for subsidized housing in Canada, and advocates were concerned that the government had reduced it at a time when the need was great (Desjardins, 2014). Moreover, implementing knowledge transfer techniques that have assisted smaller communities in making convincing arguments about homelessness to influence public policy change is inadequate to address the scope of the problem at a local level. Therefore, research is required about how to better expose and respond to women's homelessness in different regional contexts. To understand and explore women's experiences of homelessness, a multidimensional approach should be considered. Further, exploring the impact of homelessness on women's health could be achieved by more research

that looks at the whole life of a homeless woman, rather than just at selected episodes of homelessness.

2.7. Food Insecurity, Poverty and Homelessness in Indigenous and First Nation Communities

Unfortunately, food insecurity has been most prevalent in Canada's north and not all provinces have participated in the monitoring of food insecurity (Tarasuk, Dachner, et al., 2014b). Indeed, the issue of food insecurity is especially pronounced in Nunavut and the Maritimes, which have seen the highest rates among Canadian provinces, while the lowest rates of food insecurity have been found in Alberta and Ontario where the rate of food insecurity was, nevertheless, over 11 percent (Tarasuk, Dachner, et al., 2014b). This is not surprising as, historically, resources in Indigenous communities have always been in a fragile state. Therefore, the chance of sustaining success in any initiatives related to food insecurity and homelessness may not be possible without government funding and the ongoing support required for government staff to assume the role of community partner.

Within the political arena, the role of government partners, particularly at the provincial and national levels and especially in areas pertaining to food insecurity and homelessness, is to ensure that legislative reform takes into account the economic and social factors in rural and Indigenous communities to protect the vulnerable and minimize housing displacement (Elias, 2009). Furthermore, fostering local decision-making and resilience in the area pertaining to food insecurity and homelessness in First Nation communities requires time, effort and experience from stakeholders. On the other hand, decision makers in First Nations communities may experience frustration when working within the budgetary constraints dictated by the political environments while trying to stay connected and working together to promote healthy eating and housing conditions (Thompson, Kamal, Alam, & Wiebe, 2012).

Unfortunately, as stated by Keener, Nicholson-Keener, and Koutchma (2014), poverty and homelessness have become urgent issues because Canada faces the extensive reality of Indigenous homelessness and food insecurity—it has become a routine and normal part of social and political life that may not be addressed as a public priority. Yet, changing local politics may be the foundation upon which people can build to actively engage women with food- and housing-based policy responses in the twenty-first century.

Rural and Indigenous communities face many unique challenges in maintaining food security (Skinner, Hanning, Desjardins, & Tsuji, 2013). Some of these challenges experienced by communities in northern Ontario include the increased cost, lower quality and poorer nutritional value of foods. Furthermore, limited agricultural infrastructure, climactic and geographic barriers to food growing and a loss of traditional knowledge in Indigenous communities have been documented and addressed (Skinner et al., 2013). These barriers originate from increased dependence upon an imported, industrial, market-based food system that is not suitable and not well adapted to the living circumstances of remote communities (Nelson & Stroink, 2013). For instance, implementing a greenhouse project as a solution to food insecurity, establishing guidelines around greenhouse ownership and developing suitable procedures for making the building accessible to everyone can engage community members and provide a learning opportunity for gardeners in a remote, northern community. Moreover, food affordability and quality may determine healthier food choices in geographically isolated communities. Therefore, improving the affordability and the quality of nutritious foods in remote Indigenous communities may positively impact on food choices, improve food security and prevent chronic diseases in vulnerable populations (Pollard et al., 2014).

Skinner, Hanning, Metatawabin, and Tsuji (2014) have concluded that food insecurity is prevalent in remote and Indigenous communities in Canada, and there is a movement to improve food security through both the promotion of traditional harvesting practices as well as through sustainable agriculture initiatives. In fact, gardening in these communities can be difficult and may be aided by the establishment of community greenhouses. Further, linking agricultural trade liberalization to increased food insecurity, malnutrition and exposure to environmental barriers may require a paradigm shift that advocates for food sovereignty and the right to food among vulnerable populations such as poor women and families (Pirkle, Poliquin, Sia, Kouakou, & Sagna, 2014). Furthermore, a high prevalence of household food insecurity has been reported among mothers living in remote First Nations communities, which may put them at higher risk and increased susceptibility to food insecurity than urban Aboriginal populations (Skinner, Hanning, & Tsuji, 2014).

In recent years, most Indigenous villages have been transitioning to a cash economy, with increasing reliance on store-bought foods (Gerlach & Loring, 2013). However, the availability and quality of market foods are subject to the vulnerabilities of the global food system; access is dependent on one's ability to pay and is limited to what is available on the shelves of small rural stores, which may not fulfill the important roles that traditional "country foods" play in Indigenous communities and cultures (Gerlach & Loring, 2013). Furthermore, access to country food is also constrained by the rising prices of fuel and equipment; this imposition of the federal regulatory framework may challenge rather than help rural residents who need to access food resources. Thus, a regulatory framework that is not responsive to changes in climate and does not support residents with strategies on how to effectively harvest, process and store wild foods may

increasingly become a massive barrier to achieving food security in Indigenous and First Nation communities.

Nelson and Stroink (2013) have stated that Indigenous participation in land-based practices as a source of assistance for their struggles to meet food needs, such as through hunting and fishing, have a health impact in terms of climate change and contaminated food chains. Similarly, other scholars suggest that an exploration of Indigenous people's communal approaches to the availability, accessibility and distribution of food sources, along with their ability to traditionally limit the accumulation of wealth and power, to better understand their food security/insecurity (Skinner et al., 2013). This exploration may provide future approaches to address food insecurity among Indigenous communities.

Specifically, if we attempted to refine policies pertaining to food insecurity with the input of Indigenous philosophies, we would develop policies characterized by a more complex and interconnected understanding of the related issues affecting the dynamics of food behaviors and food security. Hence, policies that enhance investment in northern agriculture may include northern food sources such as wild rice, blueberries and fish; and policies for forestry, mining, and hydro developments. Further, addressing the impact of the potential contamination of locally available food sources can create a model for food systems that promotes new forms of social and associational relationships within different geographical contexts and may strengthen the health and sustainability of Indigenous communities (Nelson & Stroink, 2013).

From a housing perspective, Kaptur (2014) has concluded that analyses of the impact of daily struggles on First Nations with respect to housing focus most often on the effects of homelessness on the Indigenous communities. Yet, Indigenous people who live outside of the First Nation territory, face significant challenges in trying to encourage affordable housing

development. These challenges include the poor housing conditions of many First Nation homes as well as the current environmental legislation that limits rental housing supply and that restricts the housing available to low-income households (MacKay & Wellner, 2013). Consequently, some policy reforms and recommendations for all levels of government to facilitate place-based approaches that meet the diverse housing needs of women living in Indigenous and First Nation communities is urgently needed (Kauppi, Pallard, & Shaikh, 2013).

For instance, the National Homelessness Initiative and the Affordable Housing Initiative as strategies for solving the homelessness phenomenon were overwhelmingly urban focused and lacked sensitivity to the needs of rural areas (Canada's National Housing Strategy, 2017; Elias, 2009). Thus, while some credit could be given to federal decision makers for directing some funds to rural communities, more attention is needed in order to show flexibility toward the varied community governance approaches that exist in different geographical areas (Wenghofer, Timony, & Gauthier, 2014).

Consistent with the above discussion, since social housing is the most effective shelter solution available for poor and/or homeless women living in First Nation communities, it seems possible that providing services in these communities where higher numbers of homeless women and families are located could mitigate some of the challenges encountered by these vulnerable populations. Notably, it is important to facilitate access to services amongst those without any means of transportation. Badry and Felske (2013) have examined the issue of the prevention of fetal alcohol spectrum disorder from a women's health perspective in the Northwest Territories (NT). Their project "The Brightening Our Home Fires" was based on a social determinants of health perspective that informed research and focused on a broader context of health and the lived experience of women in the NT. Interestingly, housing, poverty, food, family and health

were the most significant themes of importance to women's health in the north. Therefore, engaging in research informed by the social determinants of health may create a participatory dialogue that stimulates action around complex health and social issues among women with experiences of food insecurity, poverty and homelessness in northern and southern Ontario.

2.8. Conceptualizing Women's Food Insecurity, Geography and Health

This study attempts to unravel the complexity of women's experiences of food insecurity, poverty and/or homelessness in northern and southern communities and to understand the effects of these social ills on women's physical and mental health. What seems to be essential in any attempt to understand the lives of poor and/or homeless women is to recognize their constant struggle to find safe, secure shelter, gain an adequate income and obtain sufficient food.

As women's health, food insecurity and place of residence as a location with all its specific attributes are closely related, learning about a sense of place and geography can teach us about the distinctive food insecurity experiences, health and resilience of poor and/or homeless women in different geographical contexts including northern and southern Ontario. Indeed, gender, poverty and environmental and health systems along with other problems of poor and/or homeless women in northern and southern Ontario are urgent and challenging problems that require efficient solutions. Ashe and Sonnino (2013) have argued that the new view of women's food insecurity is different from the old: it is bimodal in nature and encompasses issues around, under and over food consumption, hunger and obesity, quantity and quality; with an emphasis on a rural versus urban dimension. In fact, the complexity of this new view and expressions of women's food insecurity in different geographical contexts requires new approaches to public health and food policy that privilege individual, systemic, structural, sense of place and geographical factors. This view raises an important issue in relation to the socio-spatial dynamics

of place of residence, which may affect the place of food and local food production and movement and ultimately poor women's food insecurity experiences in northern and southern Ontario.

The provincial government classifies the regions of Ontario based on 49 census divisions of which 11 comprise Northern Ontario and 38 Southern Ontario (Ministry of Finance, 2012). The North East Local Health Integration Network (LHIN) is one of the largest of the 14 LHINs in Ontario, accountable for planning and funding health-care services for more than 565,000 people across 400,000 square kilometers and five sub-regions (North East LHIN, 2016). The South West LHIN is also one of the largest LHINs in Ontario, encompassing the area from Tobermory to Long Point, and Stratford to Newbury (South West LHIN, 2017). Indeed, there is no specific boundary division between the northern and southern parts of the province (Wenghofer et al., 2014). A definition of northern and southern Ontario in this study is based on the place of residency and/or utilizing services. Specifically, and for the purpose of this study, "northern women" are defined as those residing and/or utilizing the services in the City of Greater Sudbury, while those residing and/or utilizing the services in the City of London Ontario are categorized as "southern women." Geographically speaking, northern Ontario is three times larger in area than southern Ontario (Wenghofer et al., 2014). From an economic perspective, the City of Greater Sudbury is physically isolated from other major centers and its economy is heavily reliant on mining and forestry, while southern Ontario (London Ontario) consists primarily of agricultural communities. In fact, the recent economic changes in Sudbury threaten women's access to housing and social services and ultimately increase the potential for poverty and homelessness (Waldbrook, 2008).

Although various research studies have discussed some of northern and southern homeless women's struggles, these studies have not acknowledged women's experiences of food insecurity, poverty and homelessness in northern and southern geographical settings. Further, little emphasis has been placed on the specific nuances that make poor and/or homeless women's experiences of food insecurity different in the north than in the south. Indeed, there is a tendency in Ontario public health policies to generalize and conflate and to equate northern rural settings with southern ones (Wenghofer et al., 2014). Yet, understanding the different needs of poor and/or homeless women in different geographical locations may provide important guidance for informed policy formation.

Paramonczyk (2007) has suggested employing a social determinants of health framework within the southern Ontario context to understand the experiences of poor homeless women and their health issues. Interestingly, the study results revealed that access to housing, healthy food, employment, health care, income and social support were key social determinants of health that affect women's health. These results suggest that both a feminist approach and consideration of geography and social determinants of health are needed to capture women's experiences of poverty and/or homelessness.

On the other hand, Waldbrook (2008) has argued that women's experiences of poverty and homelessness in northern communities particularly in Sudbury have not been well explored. Further, the study findings in Waldbrook (2008) showed that several factors have challenged women's access to housing and social service delivery since the late 1990s. These factors include social restructuring, the declining vacancy rate and increasing levels of poverty in Sudbury. In a similar vein, Kauppi has asserted that if homelessness in northern Ontario is to be addressed properly, all three levels of government need to be involved (Kauppi, Pallard, & Faries, 2015).

Homeless women in London Ontario spend the majority of their time trying to survive life on the streets, attempting to meet basic needs such as accessing meals and shelters, which has consequences for their physical and mental health (Forchuk, Csiernik, & Jensen, 2011; Vesanen, 2012). Further, several agencies in London Ontario have identified a number of challenges in providing care to individuals experiencing poverty and homelessness (City of London, 2011). These challenges include funding instability for the programs they offer, barriers around identification, transportation challenges for required appointments, lack of communication between agencies, and limited service hours. From the provider perspective, homeless patients experience negative attitudes and poor treatment at different agencies. This phenomenon echoes the literature in which barriers are commonly identified as the most significant challenge by people with lived experience of homelessness (City of London, 2011).

In the context of the above-noted challenges with help-seeking, London Ontario's *Community specific actions Plan on Homelessness* establishes recommendations for policy and program direction until December 31, 2015 for homeless programs and services in the city. This plan is basically the next step to develop strategic interventions for homeless individuals or those facing a housing crisis and who are also living with the effects of other complex social and health challenges (City of London, 2010). Yet, for the next five years, London Ontario, in partnership with community stakeholders, will probably be concentrating on permanent solutions to homelessness-related issues including the health system. These solutions may embrace 29 new directions to shape homeless programs and service delivery until December 31, 2015 (City of London, 2010).

The prevalence count for the year 2015 in the City of Greater Sudbury showed that one-quarter to over two-thirds of absolutely homeless people had prior exposure to homelessness.

Surprisingly, the results of the 2015 prevalence count showed that homeless women accounted for 37.2 percent (n = 463) of those who indicated their gender as female (n = 1245), while homeless men made up 61.4 percent (n = 765) of this subsample (Kauppi, Faries, Rawal, Sundararaju, & Larocque, 2015). This difference suggests that there is an urgent need to understand the gender inequalities related to food insecurity, poverty and homelessness and see them as pivotal within the current social and political context. From the London Ontario perspective, Oudshoorn (2012) has claimed that the best estimate is that on any given night in the city 2,000 are homeless with 600 in shelters and transitional housing, and about 20 sleeping rough. Many women exchange sex for a place to stay and just over 10,000 Londoners are homeless for at least one night of the year.

Recently, a 24-hour count was done in April 2016 in London Ontario to determine the number of homeless individuals. This survey, known as a point-in-time count, a national census of those using shelters and living on the street (Dubinski, 2016). However, this count is only a snapshot in time of those in shelters and those living on the street; it does not capture individuals who spend half of their income or more on housing or renting.

Burnett (2012) has concluded that shelters for abused women in London Ontario function within intersecting social structures, policies and resources, which may limit the choices available to abused women and reinforce the cycle of abuse. Furthermore, Ponce et al. (2014) have found that the complex interactions between food insecurity, homelessness and health problems among women and their dependents may create extraordinary barriers to their engagement with services. Yet, exploring the co-occurrence of food insecurity, homelessness and behavioral health problems among poor and/or homeless women could improve gender-specific homeless services programs designed to target women who are unengaged with traditional

services. Given the service pressures and limited resources, The London Homeless Coalition was founded to advise, shape and coordinate community responses to women's homelessness and related needs in the London Ontario area. Similarly, the members and supporters of the Sudbury Coalition against Poverty have frequently called on the city council to do more to help homeless women.

To summarize the literature, several concerns have been raised by researchers and decision makers about the need to address how poor and homeless women challenge service systems in Northeastern and Southwestern Ontario communities to serve and satisfy their needs. These concerns show that further research is required to obtain clarification regarding the issues of food insecurity, poverty and/or homelessness. Moreover, an investigation into how to address the health consequences is urgently needed within the Northeastern and Southwestern Ontario contexts.

2.9. Theoretical Framework

This current study uses an intersectionality theory to reveal the dynamic between food, economic and housing insecurities, and health in women residing in two communities. This study seeks to promote the robustness of the findings by adopting a sound methodology based on intersectionality theory. The exploration of food insecurity, poverty and/or homelessness through the review of the literature suggests that there are no simple explanations or solutions readily available to meet the diverse needs of poor or homeless women. Thus, to clarify and understand the needs of poor and homeless women, a comprehensive and rigorous theoretical framework is required.

The aim in this section is to provide a theoretical as well as a contextual justification for how intersectionality shapes poor and/or homeless women's lives by elaborating on the

integration of a gender perspective into the study of place and poverty, and on the broadening of the concept of marginalized women. A key characteristic of this research on gender and social determinants of health is the heightened awareness of the complex diversity of the category “poor and/or homeless women” and the consideration of the intersectionality of multiple axes of power relations (race, class, sexualities, age, place, location, nationality and religion) that shape gendered experiences and social exclusion processes.

2.9.1. Intersectionality: A Brief History

In the early twenty-first century gender has become increasingly acknowledged as a central feature of women’s experiences of living in poverty, thus going beyond the traditional limits of gender analysis to the household’s struggles is demanding (Walby, Armstrong, & Strid, 2012). Indeed, the theoretical foundation of intersectionality emerged from the combination of inequality, dominance and oppression. Moreover, the evolution of intersectionality as a theoretical framework has been tracked down to black feminist responses to the limitations of the disadvantage model (Nash, 2008; Shields, 2008; Walby et al., 2012).

In the early 1980s, when the intersections of gender, ethnicity and class started being explored simultaneously in various contexts, where Black feminism in the United States has been central in postulating thoughts on intersectionality (Bilge & Denis, 2010; Carastathis, 2014; Cho, Crenshaw, & McCall, 2013; Hankivsky et al., 2010). Specifically, it was in 1989 when the term “intersectionality” was developed by Kimberlé Crenshaw (2005). The most fundamental tenet of intersectionality is the notion that social categories such as race and gender are multiple, interdependent and mutually constitutive. Further, in the intersectionality, each category cannot explain the diverse outcomes without interlocking and intersecting with another identity or identities (Bowleg, 2012; Hankivsky et al., 2010). Further, intersectionality theory aimed to

address the experiences and struggles of women of color that fell between both feminist and anti-racist discourse and posited that intersections influence both oppression and opportunity (Bilge & Denis, 2010; Cho et al., 2013; Ranft, 2013; Walby et al., 2012). This emphasis means that scholars can adopt intersectionality with its unique epistemological stance to explore the lived experiences of marginalized women such as poor and/or homeless women to develop a vision of equity and equality.

In particular, Davis (2008) has stressed that the remarkable aspects of the success of intersectionality is its vagueness and open-endedness, which attracts renowned feminist scholars from a range of various disciplines with different theoretical perspectives and political convictions to utilize intersectionality as a suitable fit for their projects as well as its applicability beyond cultural groups of women. Controversies from some feminist scholars have emerged about whether intersectionality should be limited to understanding women's experiences and theorizing identity, or as social structures and cultural discourses (K. Davis, 2008; Nash, 2008; Price, 2011; Shields, 2008). It is challenging to review how intersectional feminist theory has been widely adopted, despite a paradoxical series of controversies about what it is and how to use it.

2.9.2. Assumptions of Intersectionality

Understanding the assumptions of intersectionality, its epistemological positions and political orientations, specifically its insistence on the simultaneity of oppressions and those facing multiple oppressions, will aid in the interpretation, analysis and comprehension of poor and/or homeless women's responses based on their struggles as they experience oppression. It is obvious that intersectionality is a central tenet of feminist thinking, influences the conduction of feminist research and modified how gender is transformed in research. Indeed, intersectionality

as an approach treats gender as a type of social categorization that takes meaning from its intersection with other identities, roles and responsibilities (Hankivsky, 2012). This approach to gender makes conceptual, methodological and empirical arguments about assessing the vulnerability of women to the impacts of social change through the application of binary gender categories (Carr & Thompson, 2014).

The core tenets of intersectionality include the following: (1) social identities and social categories of difference are multiple and intersecting, (2) people from multiple historically oppressed, marginalized groups and the pursuit of social justice are the main focus, (3) multiple social identities at the micro level such as gender intersect with macro-level structural factors including poverty, racism and sexism to produce health disparities and (4) the consideration of power as central to an intersectional analysis (Bowleg, 2012; Cho et al., 2013; Hankivsky et al., 2010; Shields, 2008). The following sub-sections explore each assumption and its relevance to this research study.

2.9.3. Multiple intersecting identities and social categories

From an intersectional point of view, understanding health disparities through a single analytical category (e.g., gender or race) may omit the complex interactions in which multiple social categories intersect with social discrimination. Indeed, women's health status is complex and continually influenced by several dimensions that cannot be separated into distinctive aspects. For instance, being labeled as a 'poor woman' or even a 'woman living in poverty' cannot provide sufficient information about the complexity or diversity of this experience. Thus, social categories intersect to create unique social locations, and it is the intersection that is the paramount aspect of any intersectional analysis. Particularly, intersectionality addresses the interlocking effects of identities, oppressions and privileges to explore the complexity of

women's experiences. That is, the interplay among these factors creates individualized lives in diverse socio-economic-cultural-political realms do not stand separately from one another, but work collaboratively to form the social, cultural, economic and political conditions that affect women's and social groups' lives (Price, 2011).

It is essential not to assume that all members of a specific social group share similar experiences, perspectives and needs. For example, the group "poor and/or homeless women" may vary considerably according to different sociodemographic variables such as age, ethnicity, religious views, income, and geography and, consequently, may have very diverse experiences intersecting with the health-care system. Furthermore, social categories such as race, ethnicity, gender, age, class and geography are flexible in nature. From an intersectional perspective, social categories are complex, efficient, historically grounded, socially constructed and work at both the micro and the macro structural level (Bowleg, 2012; Hankivsky et al., 2010).

Women's food insecurity, poverty and homelessness are intersectional in nature and, therefore, poor and/or homeless women confront various forms of oppression, so deploying intersectionality may help activists to change these women's state of voicelessness into one that reflects an empowerment-based agenda (Chun, Lipsitz, & Shin, 2013). For poor and/or homeless women, focusing an intersectional lens on their struggles enables an understanding of identities that is more flexible, dynamic and dialogic than a single or unidimensional approach. Further, an understanding of poor and/or homeless women based on an intersectionality perspective can contribute to an understanding of the interaction of different forms of disadvantage, including identity and gender. Moreover, it also provides an explanation of how these aspects including social identity and location are affected, whether at the level of everyday life experiences or in social organizational practices (Grabham, Cooper, Krishnadas, & Herman, 2008).

2.9.4. Historical oppression of marginalized groups and the pursuit of social justice

The ultimate and most fascinating goal of an intersectional analysis is its effort to achieve social justice (Bowleg, 2012). This goal calls for the development of coalitions and strategic alliances to mitigate poverty, social exclusion, marginalization and subordination (Bowleg, 2012; Hankivsky et al., 2010). Developing coalitions and strategic alliances may involve distinctive definitions and similarities of women's lives and allow their multiple identities to intersect with a commitment to social justice (Bowleg, 2012).

A core assumption of intersectionality is its emphasis on the intersecting identities of people from historically oppressed and marginalized groups such as racial/ethnic minorities, low-income people, and those with disabilities (Hankivsky et al., 2010). Since people from historically oppressed and marginalized populations are the main focus of intersectionality, this orientation strives to examine the health of these populations in their own context including their structural and individual experiences rather than their deviation from the norms of white middle-class people (Bowleg, 2012; Carastathis, 2014; Hankivsky et al., 2010; Walby et al., 2012). Yet, despite its emphasis on socially disadvantaged groups as a focal point, intersectionality postulates that all interlocking identities are varied in their status including low- and high-status social identities that intersect to produce disparity and inequality (Hankivsky et al., 2010). Consequently, this paradox of the intersectionality approach contributes to public health by describing the result of adverse health outcomes at the intersection of high- and low-status identities (Hankivsky et al., 2010). Thus, intersectionality provides a more comprehensive insight into how various women's social identities intersect in complex ways to show social inequality and discrimination.

To sum up, a central target of intersectionality is the social inclusion of previously ignored and excluded populations such as poor and/or homeless women. Further, an intersectional research study that is grounded in the lived experience can provide the essential foundation for the pursuit of social justice (Bauer, 2014; Bowleg, 2012; Carastathis, 2014).

2.9.5. The social-structural context of health and the power structure

To understand the influence across levels of complexities of the health disparities among oppressed groups, two vital tasks should be performed. First, there needs to be an acknowledgment of the existence of multiple intersecting identities and, second, a recognition of how systems of privilege and oppression intersect at the macro social-structural level to maintain health disparities (Bilge & Denis, 2010). My discussion to this point suggests that public health scholars have advocated the need for a greater emphasis on how social-structural factors beyond the level of the individual affect health (Bowleg, 2012; Hankivsky et al., 2010). A central consideration of this tenet is how multiple social identities at the individual level of experience (micro level) intersect with multiple-level social inequalities at the macro structural level of society (Bowleg, 2012; Hankivsky et al., 2010).

Interestingly, embracing intersectionality within the context of poor and/or homeless women's experiences may assist in gaining an understanding about how power relations work and how new identities are intersectional in reach and scope (Chun et al., 2013).

Intersectionality, an orientation that has been used by other researchers reveals how poor and/or homeless women's experiences could be measured with different representations of identity that can be assembled in human rights law, anti-discrimination law, and in government equality initiatives such as food banks and housing programs (Grabham et al., 2008). Further, Hancock (2007) has argued that intersectionality is a content-based paradigm that emphasizes and

addresses the subjectivity of marginalized women through the intersections of race, gender, class and sexual orientation. Similarly, Hankivsky (2012) has stressed that intersectionality is recognized in the context of gender and health in addressing the common struggles within each field to combat the complex, interlinked factors that shape health inequities. Moreover, Hogan et al. (2013) have reported that intersectionality provides a solid framework for the unique life context of marginalized women as well as allows researchers to move beyond the reductionist models of analysis.

Little of the research on minority women's experiences in healthcare settings examines the complex interactions of social determinants of health, such as gender, food insecurity, place, poverty and geographical location. Because the research is limited to the intersection of gender and poverty, so is our understanding of women's healthcare experiences. From the power structure perspective, intersectionality places power and the complexity of the processes of domination and subordination at the center of any intersectional analysis. It may need to be re-emphasized that intersectionality would benefit from moving away from simply analyzing social identities and various categories such as race, gender, and class toward analyzing the interlocking relationships between processes of subject formation and systems of domination (Bowleg, 2012; Hankivsky et al., 2010). As such, an intersectional analysis should address the importance of power and its role in developing the personal and social structures of discrimination and oppression. Further, it has become something of a shibboleth that systems of domination and processes of subject formation are determined by time, gender, place and geography (Carrim & Nkomo, 2016; Cho et al., 2013; Hankivsky et al., 2010; Nash, 2008). Yet, it is crucial to understand that systems of power are moulded by the historical, social, political

context and the unique women's lived experiences that result from complex intersection of multiple social relations and identities.

The argument presented in the previous sections around intersectionality, reveals its suitability for this research, and it seems that intersectional scholars do not classify individuals as either intersectionally privileged or intersectionally oppressed (Hankivsky et al., 2010).

Intersectionality includes all women whose micro-level and macro-level experiences intersect at multiple social inequalities as well as populations with various dimensions of social privilege and oppression simultaneously (Bauer, 2014). Therefore, adopting a matrix of domination may help us to grasp the complexity of these multiple social relations and identities (Bowleg, 2012; Hankivsky et al., 2010; Walby et al., 2012).

So far, consideration of the assumptions underlying intersectionality theory reveals that it is considered to be a useful framework for studying women's food insecurity, homelessness and poverty because it allows for an explanation of the underlying social and/or material reality which is mediated through social and cultural processes (Hankivsky, 2012). It is important to note that these assumptions include a commitment to undermining oppressive gender-based power relations as well as supporting the intellectual and political struggles of poor and homeless women (Jorgensen, 2002).

2.9.6. Intersectionality: The theoretical and methodological challenges

Undertaking an intersectionality project is not without its challenges. In fact, the challenges to an intersectional-based analysis of oppression and privilege are numerous (Samuels & Ross-Sheriff, 2008). Perhaps, these challenges may usefully provide the lenses through which I view the complexity of the lived experiences of poor and/or homeless women.

Furthermore, understanding the interactions between several categories reveals exploitation, how power functions, and how social agency may be enhanced in the areas pertaining to women's food insecurity and/or homelessness. This argument is consistent with Yoshida, Hanass-Hancock, Nixon, and Bond (2014) who have concluded that intersectionality offers a complementary approach for examining the complex interrelationship among various forms of marginalization and gender with more emphasis on oppression and negotiation related to accessing health services and social roles and relationships.

On the other hand, Bowleg (2012) has argued that intersectionality is viewed as an analytical framework or paradigm rather than a traditional testable theory, due to the fact that it has no core variables to be operationally defined and empirically tested. Further, Bauer (2014) has stated that there are two theoretical challenges to consider when applying intersectionality: (1) determining which social categories intersectionality should include and (2) the inability of the intersectionality perspective to predict and test the behaviors or health of a marginalized population. As a result, the intersections of race and (female) gender in the women's lived experiences and their health have been the primary focal point of the intersectionality perspective. Methodologically, although qualitative methods or mixed methods appear to be ideally suited to intersectionality's implicit complexity and multiplicity, the challenges of conducting intersectionality research quantitatively are especially daunting (Bowleg, 2012). Thus, a greater and more contemplative incorporation of a quantitative intersectional project into the public health discipline may promote and foster women-based interventions such as public health policy modifications.

Intersectionality's commitment lies in its strength to address health disparities across the intersections of race, ethnicity, gender, sexual orientation, disability and immigration and

acculturation status. However, several challenges in respect of the incorporation of intersectionality into public health research have been raised. These challenges include the following issues: first, there is confusion regarding the use of statistical methods, since many statistical methods often rely on assumptions of linearity, unidimensional measures, and uncorrelated error components, which are incongruent with the complex tenets of intersectionality. Second, there is difficulty in distinguishing between intersecting identities, social positions and other structural factors. Third, decisions must be made about how processes of oppression and privilege should be measured and analyzed. Fourth, an appropriate scale is required for interactions in regression models (Bauer, 2014; Bowleg, 2012).

One of the challenges that scholars faced is how intersectionality could serve as a framework to study poor women's struggles with the absence of its theoretically and empirically tested constructs (Lutz, Vivar, & Supik, 2011; McCall, 2014). Another harsh challenge is how to adapt an analytical framework to theorizing and explaining the intersection between different axes of poor and /or homeless women's multiple identities which itself raises complex theoretical, methodological and political issues (Bauer, 2014; Bowleg, 2012; Hankivsky et al., 2010). Paradoxically, I argue that these challenges can be seen as a tremendous opportunity for promoting the adoption of intersectionality as a methodology and its utilization in addressing various public health issues and policies.

Another challenge in respect of the use of intersectionality in a research project is that intersectional analysis does not prioritize one facet or category of social difference and cannot homogenize and clarify how empowerment-based projects affect people who are differentially located within the same boundaries of belonging (Yuval-Davis, 2011). However, my intersectional project is informed by aspects of social justice regarding the exploration of

women's experiences pertaining to food insecurity and homelessness. This exploration assists in identifying the differential access to the resources and services pertaining to food insecurity and/or homelessness by poor and/or homeless women, how women exercise their agency and which policy changes and social institutional support are required.

Despite the current difficulties mentioned above, public health scholars need to continue incorporating intersectionality into their theoretical frameworks, designs, analyses and interpretations, rather than ignoring the benefits of using intersectionality till its theoretical and methodological challenges are resolved. Simply put, public health scholars need to adopt a stance that involves curiosity and commitment to understanding how multiple social categories intersect in order to identify health inequalities and disparities by adopting specific measures to facilitate analyses that are based on intersectionality (Bowleg, 2012; Hankivsky et al., 2010; MacKinnon, 2013).

The adoption of intersectionality theory, which underpins my study, can strengthen and add value to the analysis of women's food insecurity, poverty and/or homelessness. Further, applying an intersectionality approach with its scope and assumptions as a theoretical lens and methodological paradigm to explore women's food insecurity, poverty and homelessness can deepen our understanding of the oppression and privilege experienced by women and their children (Hankivsky et al., 2012).

In summary, adopting an intersectional analysis in ways that consciously and creatively challenge existing social exclusion and power structures provides a key theoretical framework to explore the experiences of food insecurity, poverty and homelessness among women in northern and southern Ontario. Accordingly, I call for a greater awareness and utilization of intersectionality within the public health discipline. Further, I assert and have a strong sense that

intersectionality has the potential to provide a critical, penetrative theoretical framework that can guide and assist public health research and policy.

Chapter 3

3. Research Methodology

There is a need in health science research to adopt methodological diversity. This diversity is required in order to reflect the nature of the problems facing public health, such as the social determinants of health. There is a growing acceptance of the use of multiple methods designs to address public health issues (Creswell, Klassen, Plano Clark, & Smith, 2011). Pragmatically, the selected research design should fit the purpose of the study and allow the researcher to answer the research questions (Macnaughton, Goering, & Nelson, 2012). There is a distinct trend in health research that advocates for the adoption of qualitative and quantitative methods as complementary, rather than separate, entities (Creswell, 2013; Creswell et al., 2011; De Lisle, 2011; Greene, 2007; Jick, 1979; Lopez et al., 2013). In particular, Coates, Wilde, Webb, Rogers, and Houser (2006) concluded that the use of multiple methods is increasingly appreciated and valued as a way to address food security problems. Moreover, they argue that such an approach has the possibility to enrich the overall study findings through comparing and contrasting quantitative and qualitative results.

Generally, multiple methods research encompasses the two main approaches in social research: quantitative and qualitative (Ivankova, Creswell, & Stick, 2006). For this study, a sequential descriptive multiple-methods approach was used. The first phase involved collection and analysis of the primary qualitative data was conducted first followed by an analysis of the secondary quantitative data. This sequence allowed the researcher to explain and elaborate on the qualitative results. The second phase, involving a secondary quantitative analysis phase built on

the first, qualitative, phase, and the two distinct phases assisted the researcher to further explain and understand women's experiences of food insecurity in two different settings.

Firestone (1987) suggests that the connection between method type and paradigm is more aesthetic than logical. Both qualitative and quantitative methods can be viewed as rhetorical devices with different kinds of information that can be used to gain a greater understanding of the phenomenon studied. Furthermore, each method allows the researcher to present a different view of the phenomenon of interest by using different means to justify the validity of the findings and the conclusions drawn (Firestone, 1987). Moreover, several scholars have argued that the integration of qualitative and quantitative methods is becoming a standard practice in health research (Lopez et al., 2013; Macnaughton et al., 2012; Maxwell, 2010; J. M. Nagata et al., 2012; Östlund, Kidd, Wengström, & Rowa-Dewar, 2011; Pope & Mays, 1995; Sandelowski, 2000). This is because it enables researchers to further explore areas not amenable to quantitative research alone, such as health beliefs and lived experiences. For these reasons, in-depth qualitative description is a prerequisite for good quantitative research.

In this research, the purpose of using a descriptive multi-methods design is to better address women's lived experiences of food insecurity and/or homelessness residing in two different geographical locations in Ontario. As discussed earlier, this phenomenon is complex. The blending of qualitative and quantitative is suitable. Therefore, given the nature of the research questions and the need to further elaborate and explain women's experiences, it is necessary to use both qualitative and quantitative research methods to grasp the phenomenon of interest and gain a proper understanding of the nature and distribution of these experiences in two different locations (Sudbury & London Ontario).

The design of phase I is a qualitative descriptive study. This approach allows for an in-depth analysis of everyday life experiences or events (Sandelowski, 2000). Moreover, this approach has been used in the study of vulnerable women to demonstrate its appropriateness given intersection of multiple health determinants. The use of multiple methods in health research involves the integration and connection of two different data components where one data set may inform the selection of the subsequent data (W. Zhang & Creswell, 2013). In a multiple methods design, the qualitative data and their subsequent analysis provide a general understanding of the research problem by exploring participants' views in more depth. On the other hand, the quantitative data and their statistical analysis and results polish and may help to produce complementary subsets of results, which can enrich the overall findings and facilitate the interpretation of results (Creswell, 2013; Creswell et al., 2011; Ivankova et al., 2006; Lopez et al., 2013; Venkatesh, Brown, & Bala, 2013).

Understanding the principles and practices of generating different data types can help health researchers enhance the strength of their study findings (Fetters, Curry, & Creswell, 2013). Phase II of the study design is a quantitative secondary analysis. In general, the profile of poor and/or homeless and food insecure women in Northeastern and Southwestern Ontario is best analyzed by using quantitative methods (Coates et al., 2006). However, women's experiences of food insecurity and/or homelessness, and the impacts on their physical and mental perceptions of well-being, are best captured by using multiple methods. Yet, methodologically sound multiple methods research holds potential for rigorous studies and can improve our understanding of women's food insecurity, poverty and homelessness by providing a more comprehensive picture than either a quantitative or qualitative method alone (Coates et al., 2006;

Firestone, 1987; Jick, 1979; Pope & Mays, 1995; Sandelowski, 2000; Wisdom, Cavaleri, Onwuegbuzie, & Green, 2012).

In fact, multiple methods research offers powerful tools for investigating complex issues and systems in the area of health (Fetters et al., 2013). Furthermore, there is growing interest in using a combination of quantitative and qualitative methods to generate evidence about the effectiveness of health promotion and disease prevention, services, and intervention programs (Zhang & Watanabe-Galloway, 2014). With the emerging importance of multiple methods research across the social and health sciences, there has been an increased emphasis on the value of using such methods to address research questions on different topics including the social determinants of health (Firestone, 1987; Jick, 1979; Pope & Mays, 1995; Sandelowski, 2000; Zhang & Watanabe-Galloway, 2014).

Davis and Baulch (2011) have argued that adopting sequential multiple methods approach in their study of poverty dynamics in rural areas had several advantages over single method approaches. These advantages included having very different assessments of socioeconomic mobility, identifying the proximity to the poverty line, and discovering any connection to the aspects of well-being, household division, and qualitative recall errors. Thus, using a multiple methods approach can improve the reliability of the results of research on poverty dynamics. Furthermore, the multiple methods approach provides a gentle reminder of the limitations of using single indicators to analyze complicated and complex social phenomena such as poverty and its manifestations including food insecurity (Davis & Baulch, 2011).

De Lisle (2011) has stressed that the multiple methods approach is most useful for exploring complex phenomena and multiple issues such as poverty, food insecurity and homelessness. Further, (Nagata et al.2012) has pointed out the value of using different data sets

to investigate the lived experience, determinants, and consequences of food insecurity among vulnerable individuals. The advantage of using multiple methods is that quantitative data can provide generalizable results while qualitative data can provide extensive insights.

The rationale for using a multiple methods design is that neither quantitative nor qualitative methods are sufficient in themselves to capture the trends and details of a phenomenon (Bamberger, Rao, & Woolcock, 2010; Coates et al., 2006; Firestone, 1987).

In the context of this study, using multiple methods design for generating inferences from qualitative and quantitative findings may improve our understanding of the links between the complex interactions of empirical findings pertaining to food insecurity, poverty and homelessness among women in northern and southern Ontario. The merit of such an orientation, echoes Lopez et al. (2013) views where they have concluded that the methodological complementarity, initiation, and expansion of multiple methods research projects contributes to more robust findings about structurally vulnerable populations. They have also argued that multiple methods research promotes the extent, reliability, and generalizability of collected data, and permits the researcher to report unexpected or contradictory findings as they emerge (Lopez et al., 2013).

Descriptive multiple methods were deemed the most appropriate to answer research questions posed by this project. Descriptive multiple methods research is well suited to the exploration of variations in the construction of the meaning of concepts about how women, for instance, make sense of their experiences of food insecurity, poverty and/or homelessness (Bergman, 2010; Firestone, 1987; Pope & Mays, 1995; Sandelowski, 2000).

3.1. Undertaking Research with Vulnerable Populations

Research with vulnerable populations is an emerging type of research that promotes the involvement of key stakeholders, including community members and individuals, and places an emphasis on disparities in health-care access and outcomes and also translates the research findings into empowering practices (Tapp & Dulin, 2010). Specifically, this type of research assists in the development of the protocol and methodology of various projects; it also enriches the data collection and analysis and encourages the translation of the results into clinical practices. Indeed, the notion of poor and/or homeless women's inclusion is appropriate, desirable and achievable through multiple aspects including the dynamic interactions between the structural determinants of health and women's health and well-being.

Moreover, working with and interviewing a vulnerable group such as poor and/or homeless women provides a non-threatening way to engage a marginalized group of people in a dialogue on complex health and social issues such as food insecurity, housing, poverty and homelessness (Blumenthal, 2011). In this study, the research conducted with a vulnerable group (poor and/or homeless women) was built on existing relationships of trust among community partners who work closely with the researcher.

To sum up, the reason behind the selection of descriptive multiple methods approach for this project was based on the idea that it would be the most appropriate for finding answers to the research questions within a reasonable time frame. Further, adoption of a descriptive multiple methods design and doing research with a vulnerable group creates opportunities for the study participants (women) and stakeholders to identify the issues around women's food insecurity, poverty and/or homelessness in the Northeastern and Southwestern Ontario contexts.

3.2. Researcher Reflexivity

In this section, it is my intention to discuss researcher reflexivity and my declaration of self through acknowledging a professional and personal relationship with my study. Reflexivity may be conceptualized as a continuous process in which all people in a community, including the researcher, make an effort to draw upon different forms of knowledge and open themselves to emerging possibilities (Noble & McIlveen, 2012).

Researcher reflexivity can be encouraged by adopting an intersectional lens that is based on conceptual and empirical activities and emphasizing power differential. However, critics have argued that researcher reflexivity leads to self-referential inconsistency (Noble & McIlveen, 2012). An important issue that is linked to my view of reflexivity is that, during a reflexive inquiry, I tend to react based on my established ways of doing. This implied that I am engaged as a participant in the inquiry and as a facilitator of the research process; my role is to stimulate reflexive dialogues and arguments about how we construct the required qualities of a research process (Noble & McIlveen, 2012).

In line with the tradition of intersectionality, reflexivity is often connected with the assumption of multiple categories and identities. As Ceballo, Graham, and Hart (2015) have explained, these multiple identities are not seen as variants around some aspects of the truth, nor as individual subjective knowledge whereby they are emergent products of the intersection of multiple social categories such as race and gender. These social categories and identities are multiple, interdependent, and mutually constitutive. My intersectional approach reveals that it is possible to explore poor and/or homeless women as an oppressed and marginalized group that needs to be empowered through emphasizing the intersecting identities of this group (Hankivsky

et al., 2010). Moreover, this project adopted an intersectional research process in which participants, including the researcher, reflect on specific ways of becoming co-participants in the generation of knowledge. This process took place during the qualitative phase of this study and thru interviewing poor and/or homeless women.

Yet, it is also about being sensitive about what is possible in terms of this kind of research and focusing on research that is empowering and collaborative in nature. The emphasis in this kind of research is on the researcher continually reflecting on their behavior while, at the same time, inviting participants to be co-inquirers by respectful engagement during data collection (Hunt & Zajicek, 2008; Savin-Baden, 2004).

Indeed, researchers must be able to interpret responses from the perspective of the respondents, regardless of their own professional or personal objectives (Robson, 2002). Professionally, I have nursing experience in various settings largely directed toward vulnerable populations including poor women, in hospital and in the community. My intention to conduct a study that explores poor and/or homeless women's experiences of food insecurity is congruent with the common professional opinion around the availability of empowering based-interventions for women's health. This intention influenced the collected data through inherent bias toward the negative health outcomes of women's food insecurity. Furthermore, I am aware that acknowledging my personal opinion of women's food insecurity experiences in different geographical contexts may negatively impact the data through the potential oversight of some disadvantages or challenges experienced by women residing in Northeastern and Southwestern Ontario. Therefore, to limit the impact of bias on the data and the interpretation of the findings, I have employed several measures before, during, and after interviewing the participants as well as

during the data analysis and interpretation to promote the rigor and credibility of my study.

These measures are discussed in the below section.

3.3. Ethical Considerations

Ethics approval was obtained for this study from Laurentian University (Appendix A). A full ethics review was conducted because the study participants (poor and/or homeless women) are considered a vulnerable group. Homeless people and those at high risk of homelessness may be members of vulnerable populations. The research literature indicates that many have suffered from mental illness. Therefore, some of them may be unwilling to provide information about themselves. It is vital that they understand fully that they are not obligated to participate in the study and that their refusal to participate will not impact on the services they want/need.

It is also possible that the subjects may recall unpleasant memories and become upset when asked about topics such as the circumstances and reasons for homelessness or food insecurity. Hence, the researcher was sensitive to any signs of psychological distress or unwillingness to participate in the study. During data collection, only one participant from southern Ontario became upset and cried, the interview was stopped and referral to a service provider (social worker) within the agency as well as the community was initiated to provide further assistance/support. Overall, the project posed a minimal risk of harm and the researcher developed procedures to ensure that the research was conducted in a way that would be of benefit to the participants. For instance, the researcher assured the participants that the current research would not be invasive, in that the research questions would not probe into the personal details of participants' lives but rather focus on issues related to their living circumstances, experiences, and perceptions pertaining to food insecurity, poverty and/or homelessness.

3.4. Setting

This study took place in urban communities in Northeastern and Southwestern Ontario, specifically the City of Greater Sudbury and the City of London Ontario, respectively. The women resided in the urban core of the City of Greater Sudbury and the City of London Ontario at the time of the study. However, it should be noted that the City of Greater Sudbury is sparsely populated including the unincorporated townships and First Nations reserves compared to the City of London Ontario.

For the descriptive qualitative design, the setting consisted of agency premises and sites in both Sudbury and London Ontario where food and housing services were provided to homeless persons and those at risk of homelessness. These areas show an increased incidence of homelessness and food insecurity and yet only a few studies have addressed these problems in these areas (Forchuk, Reiss, Mitchell, Ewen, & Meier, 2015; Kauppi et al., 2012). The source of data for the secondary quantitative analysis was quantitative setting included data extracted from the Canadian Community Health Survey (CCHS) for 2014. This national cross-sectional survey focuses on aspects of health and health service utilization. The total sample size was 65,000 Canadians at least 12 years of age or older in 10 provinces and three territories. A specific and relevant data set extracted from CCHS that includes the Northeastern and Southwestern Ontario Local Health Integration Network (LIHN) were analyzed. Eight regions in total were identified in the LIHNs of Northeastern and Southwestern Ontario. The North East LHIN consisted of Sudbury, Algoma, North Bay and Muskoka, while the South West LHIN consisted of London Ontario, Windsor, St. Thomas and Chatham. Based on the above data, the study provides information at a descriptive level pertaining to women's food insecurity, the community services

and food-based strategies used by poor and/or homeless women in Northeastern and Southwestern Ontario.

3.5. Sampling

For the quantitative component of the study, which involved an analysis of secondary data, a sub-sample of 408 food-insecure women was identified from the CCHS 2014. These women had self-reported a moderate to severe status of food insecurity in the last year in Northeastern ($n = 210$) and Southwestern ($n = 198$) Ontario.

For the qualitative component of the study, participants were recruited from community service agencies such as food banks, meal programs, community-supported shelters and housing programs. Each participant was provided with a consent form (see appendix B) and information letter (see appendix C) in English and was informed that they could withdraw from the study at any point. The participants were contacted and recruited by a recruitment poster (see appendix D) that was posted in the premises of the community service agencies. A purposive and snowball sampling technique was utilized to obtain the proposed sample size of a minimum of 20 participants. A total of 10 interviews were retrieved from the Poverty, Homelessness and Migration (PHM) project in Sudbury to examine women's lived experiences of food insecurity, poverty and/or homelessness from the Northeastern Ontario perspective. Ten interviews were also conducted by the researcher in London Ontario to explore women's lived experiences of food insecurity, poverty and/or homelessness from the Southwestern Ontario perspective. To this end, the researcher established relationships and partnerships with those who worked most closely with the study population. Drawing on community and academic partnerships, the data collection was designed and carried out in collaboration with those who worked most closely with the participants. The goal was to obtain enough participants to attain theoretical saturation,

that is, to reach the point where additional interviews would not generate new insights and would be rendered redundant, but where interpretations of the data met the need for theoretical expectations (Zhang & Creswell, 2013).

Semi-structured individual interviews for subgroup of women, which lasted between 45–90 minutes, were conducted to capture and grasp the essence of the women’s experiences of food insecurity. The participants (women) were interviewed at community service agencies in a safe place, and they were reimbursed for the cost of participating in the interview in the amount of CAD 20. Participants experience various costs to take part in interviews, for instance for transportation, replacement of missed meals at a service location, child care or missed opportunities to earn income (e.g. temporary work), which were partially covered by this CAD 20 payment.

3.6. Inclusion and Exclusion Criteria

For the qualitative part of the study, the selection of the participants was made through purposeful strategies and the recruitment of participants was continued until saturation was achieved; the selected participants were those who were best able to provide information to answer the research questions and enhance the understanding of the phenomenon under study. The participants were considered suitable for interview if the following inclusion criteria were satisfied: (i) they were part of a married couple, a common-law couple, a caregiver or a lone-parent with a child/children or grandparent/caregiver with custody of a child/children; (ii) they had experienced an episode of homelessness or near-homeless and food insecurity in the last year; (iii) they were able to recall and articulate conscious experiences of food insecurity and/or homelessness in the English language; and (iv) they had accessed shelters or meal programs in the last year.

However, participants were excluded from the study if they were (i) non-English speakers, (ii) homeless or near-homeless youth under the age of majority, (iii) unable to recall their experiences of food insecurity and/or homelessness (e.g. persons with dementia); or (iv) individuals who were not homeless or at risk of homelessness.

For the quantitative study, the inclusion criteria of the CCHS were followed: individuals had to be 12 years of age and over, proficient in English and currently living in one of the 10 provinces or the three territories of the country. The following persons were not included in the survey according to the CCHS exclusion criteria: persons living on reserves and other Aboriginal settlements in the provinces; full-time members of the Canadian Forces; the institutionalized population; and persons living in the Quebec health regions.

3.7. Data Collection

As previously mentioned, this study consisted of two phases, phase I a qualitative and phase II a quantitative phase. The data collection for qualitative phase took approximately six months. For the first phase of the study, qualitative data (Sudbury interviews) were collected by PHM staff and (London Ontario interviews) were collected by the researcher. The researcher retrieved 10 interviews from the PHM project to capture women's experiences of food insecurity, poverty and/or homelessness from homeless women's perspective (i.e. those living in Northeastern Ontario) and conducted 10 interviews from poor and/or homeless women those living in Southwestern Ontario. The interviews were audio-recorded with the consent of the participants (20 homeless women). Each interview took approximately 45–90 minutes and was held in a private room in the premises of service agencies. The interviews allowed each woman to share their perspective in an individual session in a private location within a social service agency context such as a food bank or shelter. In order to meaningfully engage the participants in

the study, an interview guide (see appendix E) was followed that contained relevant questions to encourage the participants to talk about their food insecurity experiences and their living circumstances.

The researcher acted as a facilitator, guiding the discussion and helping the participants to engage in critical analysis and reflection as a means of moving from personal experiences to an understanding of the political implications. The researcher's questions were directed at a personal and political level. The recorded discussions were used as the basis for creating quotes and themes. The second phase of the study involved the extraction of quantitative data set from the CCHS, which were collected directly from survey respondents from January to December for two calendar years 2013 and 2014. In this CCHS, all the responses were voluntary, and each interview took around 45 minutes to complete. The CCHS used three sampling frames to select the sample of households: an area frame, a list frame of telephone numbers, and a random digit dialing frame. All members of the household were listed, and individuals aged 12 years or over were automatically selected based on age and household composition.

3.8. Data Management/Treatment

The audio tapes were transcribed verbatim by the researcher with some help from a transcriptionist. The files of the transcribed interviews were stored on a password-protected computer with firewall encryption. These files were also backed up on an external hard drive with password protection. An appropriate method of data encryption was used. Access to the electronic data file was restricted in the same way as the transcripts of the interviews. The data were entered into NVIVO qualitative data management software by the researcher. In addition, hard copies of the results and data were kept in a locked file cabinet with access restricted to Dr. Carol Kauppi and the primary investigator.

For the quantitative design, the focus and range of extracted data was informed by the purpose of the study and the adopted conceptual model. Access to the CCHS was through a web-based data extraction system delivered through Laurentian University's data services via a scholars' portal called Ontario Data Documentation, Extraction Service and Infrastructure (ODESI).

In general, ODESI contains both microdata and aggregate data in a different format, and the core data comes from Statistics Canada. This study targeted Statistics Canada data sets to locate, subset and download data from CCHS (2014). With librarian help and by working on Statistics Canada microdata files, a subset of data was identified and downloaded. The data included the respondents' sociodemographic characteristics, food security-related variables and general and mental health perceptions. The selected data set was downloaded into Statistical Package for the Social Sciences (SPSS) format and transformed when necessary for interpretation of the data. After careful exploration of the original data sets, a table was created for the selected variables. Both quantitative and qualitative data will be saved for five years after the completion of the project for secondary data analysis purposes.

3.9. Data Analysis

The researcher created Microsoft Word files of the transcribed interviews and of the observations. The transcribed interviews within NVIVO structures were transferred into word files to advance levels of coding. The researcher used the meaning context as the unit of analysis for coding and description. This means that the data were not coded sentence by sentence or paragraph by paragraph, but rather coded for meaning (Braun & Clarke, 2006). The unit of analysis was thematic analysis that guided by the thematic analysis developed by Braun & Clarke, I undertook the following five iterative steps. First, to become familiar with the two data

sets; Second, generating initial codes; Third, reading through each transcript to be immersed in the data, Fourth, reviewing themes, Fifth, defining and naming themes, and producing the report. Thick, rich descriptions were obtained by presenting the participants' voices under each theme and by providing a detailed description of each theme. The researcher accessed the assistance of a supervisor and a committee member as both peer debriefers because they are experts in qualitative data analysis and kindly agreed to take on this role for this study.

Secondary data were analyzed using SPSS version 24 (Armonk, 2011). Data analysis in the quantitative phase began by determining a preliminary list of specific types of information and/or data needed to conduct a secondary analysis based on the focus of the study. Moreover, this phase involved retrieving the selected variables from the primary source (CCHS) and selecting the appropriate tests. For the purposes of this research, descriptive statistics was used to profile the sociodemographic, health and various features of women who identified as being food insecure / secure. Such methods allowed for a summative presentation to demonstrate data patterns into a form that makes it easier to understand (Plichta, Kelvin, & Munro, 2013). Further, frequency tables are characterized by their simplicity, which helps in the interpretation and display of large data sets, as well in identifying the trends within a data set and comparing data of the same type (Reid, 2017). A Pearson's chi-square test was performed to test the association between the geographical health region and other categorical variables, including general and mental health perceptions, worries about running out of food, frequency of skipping meals and affordability of balanced meals. A Spearman's rho correlation was used to explore the degree of the relationships between general and mental health perceptions and other study variables, including household size, employment, worries about running out of food, frequency of skipping

meals and affordability of balanced meals. The level of statistical significance was set at $p \leq 0.05$. All the statistical analyses were conducted using SPSS version 24.0.

3.10. Rigor and Quality Control

In order to strengthen the rigor and quality of a research study and to ensure the quality of the data and the “trustworthiness” of the analysis and credibility of a study, several validation strategies need to be implemented (Creswell, 2013). Lincoln and Guba (1985) have contended that there should be distinct and unique criteria to judge and evaluate the merit of qualitative research. The criteria that are most commonly used to evaluate qualitative research and to develop trustworthiness in qualitative research are credibility, dependability, confirmability and transferability (Guba & Lincoln, 1994). The following section presents a description of the various strategies that were adopted by the researcher to ensure the credibility and trustworthiness of the qualitative findings of this study.

3.11. Credibility

In this study, several techniques were implemented to establish the credibility and accuracy of the findings. These techniques included prolonged engagement, peer debriefing and member checks.

3.12. Prolonged engagement

Guba and Lincoln (1994) have argued that qualitative researchers should find ways to achieve rigor and credibility. It has been argued that prolonged engagement with the data is one way to achieve rigor and credibility (Guba & Lincoln, 1994; Morse, 2015). In this study, I demonstrated rigor by conducting face-to-face interviews with the participants, spending more than adequate time on data collection, which provides time for establishing trust between the

researcher and the participants and assists in developing intimacy, and in turn, allows the acquisition of better and richer data (Morse, 2015).

Moreover, I transcribed the interviews verbatim, which involved frequently reassessing and evaluating the accuracy of the transcriptions, becoming immersed in the data and reading each of the interviews in their entirety several times to get a clear sense of the data. Furthermore, I conducted participant and theory-driven analyses, constructing meanings of women's food insecurity in different contexts that were grounded in the participants' narratives. Further, my thesis supervisor and committee member reviewed and engaged in the analysis of a few of the transcripts to ensure that my analyses were conducted in congruence with the selected theoretical lens, research questions and the purposes of the study and that I had succeeded in extracting the relevant information from the participants. Additionally, the findings (themes) were critically examined by my supervisor and committee member who assisted me in conceptualizing and developing my thematic concept map. I also attended basic and advance training workshops on utilizing the qualitative data management software program NVIVO 11, which was used for the management of the qualitative data (Richards & Lyn, 1999).

3.13. Peer debriefing and member checks

Before initiating data collection, I shared the interview guide questions and sought advice from my supervisor and colleagues regarding their clarity and effectiveness. Based on the feedback from my supervisor and colleagues, I developed an interview guide and adjusted the wording so that the questions would be clear and easily understood by the participants.

Generally, member checking refers to giving the transcribed interview or the completed analysis back to the study participant to obtain their feedback about the data and the analysis (Creswell, 2013; Morse, 2015). However, Morse (2015), argued that it is not clear, practical or necessary to

provide the participant with a chance to change their mind, and that the researcher's background in the selected theory and its assumptions and research methods is the more important in judging the merit of the analysis.

Therefore, the member checks were conducted in three main ways. First, I conducted regular meetings with the supervisory committee throughout the research process to provide them with regular updates on the research process and asked for feedback on the data analysis. Second, the study findings were shared with committee members, who were asked to provide feedback on the interpretations. Third, my supervisor, one of my committee members and one post-doctoral fellow, who are experts in analyzing qualitative data, were consulted to enhance the "trustworthiness" of the analysis and ultimately the credibility of this study. This information was further investigated and compared to determine whether a pattern had been missed or changed or whether it could be considered as an exception.

3.14. Transferability

Transferability can be defined as the transfer of the original findings to similar individuals and similar contexts (Morse, 2015). One way in which transferability can be achieved is through thick and rich descriptions of the participants, sampling and setting, data collection and analysis and major findings interpretation.

3.14.1. Thick and rich description

Morse (2015) has asserted that "thick and rich data" is dependent on the entire data set and the quality of the collected data. Since data quality is associated with the number of interviews and/or participants, I adopted several techniques to achieve a thick and rich data set. For instance, I considered a detailed description of my role as a researcher including my personal biases, the selected theoretical framework, the participants, the recruitment process, the settings,

and the data collection and analysis processes. I also provided a full and rich description of the study findings (themes) to allow the readers to make decisions and judge the applicability of and the transferability of the study findings to different individuals and contexts. Furthermore, a special consideration was given to the sample size and the appropriateness of the sampling approach and participant selection to enable the research questions to be addressed appropriately and to reduce the potential of having a biased sample (Morse, 2015). Furthermore, I applied data triangulation by using multiple data sources (quantitative and qualitative data) to produce a more comprehensive view of the phenomenon being studied. Additionally, using an interview guide and memoranda for the individual interviews and questions guides that are not biased or leading.

3.15. Dependability

Various scholars equate dependability with the reliability of the research process and findings (Creswell, 2013; Guba & Lincoln, 1994; Morse, 2015). I adopted the technique of inter-coder agreement proposed by Morse (2015) to establish the dependability (reliability) of my study findings.

3.15.1. Inter-coder agreement

Generally, the aim of adopting inter-coder agreement for coded in-depth semi-structured interview transcripts is to ensure that a particular coder (primary researcher) may be reasonably confident that his or her coding can be reproduced by other knowledgeable coders (Creswell, 2013; Morse, 2015). Indeed, inter-coder agreement requires that two or more coders are agreed to discuss any coding discrepancies that may arise for the same text of the transcript (Creswell, 2013). Therefore, to establish the dependability of my study findings through inter-coder agreement, I sought the assistance of a committee member as she is an expert in qualitative research and data analysis. The committee member coded some of the selected passages from

anonymous transcripts independently and forwarded them to me, so I could compare our coding. Interestingly, there was a remarkable overlap between our coding (code names), we had used similar or nearly the same code names for the same passages. On the other hand, some of dissimilarity that arose in the selection of code names could probably be related to the differences in our background and language. My selection of code names was grounded in the chosen theoretical framework (intersectionality), my knowledge of the extant literature on women's food insecurity, personal biases, and the words of the participants.

3.16. Confirmability

Morse (2015) used the term confirmability to describe objectivity by using triangulation strategies and an audit trail. Similarly, Lincoln and Guba (1985) have asserted that in a naturalistic inquiry, a distinction between subjectivity and objectivity should be considered when describing confirmability. Furthermore, they suggested keeping a reflective journal and an audit trail to demonstrate the confirmability of the study findings.

3.16.1. Reflective journal and audit trail

The utilization of an audit trail could help the researcher to assess whether the study's findings are grounded in the data (Lincoln & Guba, 1985). Moreover, it allows the researcher to reflect on how a study has unfolded. Prior to initiating the study, I maintained a reflective journal in which I documented my rationale of the selected topic, the selected geographical areas, outcomes, and evaluations of all the modifications and decisions taken in the study. Lincoln and Guba (1985) have suggested that by allowing an audit trail, a second researcher who becomes familiar with the qualitative study, its methodology, data analysis and findings can, on completion of the study, audit the methodological and analytical processes employed by the primary researcher, and thus confirm the findings of the study.

In developing an audit trail, I created an account of all the research decisions and activities throughout the study. Further, I made explicit all the decisions that were taken about my theoretical, methodological and analytical choices. In order to develop a detailed audit trail, I maintained a log of all my research activities, write memoranda, maintain research journals, and document all the data collection and analysis procedures throughout the study (Creswell, 2013). My audit trails for this research were intellectual and physical in nature. The intellectual audit trail assisted me in reflecting on how my thinking evolved throughout all the various phases of the study. On the other hand, the physical audit trail covered the various stages of the research study, from the inception of the study to the identification of the research problem, literature review and decisions in respect of the research methodology and the theoretical lens. I wrote down the reasons for the selection of my research topic and the justification of the selected setting. I selected specific geographic areas for data collection based on practical considerations such as the availability of food- and gender-related community services and resources availability. Additionally, I explicitly acknowledged my personal experiences and biases, assumptions, and theoretical orientation at different stages of the research process. Finally, I refined my thematic analysis and my thematic conceptual map based on feedback from my supervisor and one of my committee members.

3.17. Summary of the Study Findings and Thematic Concept Map

All codes/themes developed separately for each geographical area. Then analysis results compared and contrasted across all themes. The narratives of the women in this study revealed the devastating experiences of food insecurity and its impact on their health and well-being in the Northeastern and Southwestern Ontario contexts. Various dimensions of the Northeastern and Southwestern Ontario geographical contexts, including physical, structural, social and political

aspects, were addressed to elucidate poor and/or homeless women's food insecurity experiences. Intersectional tenets and assumptions guided the analysis of the women's narratives and revealed suitable and apparent as the women and their dependents grappled with the complex issues of food insecurity and power differential in different geographical contexts.

Although the findings of this study are presented in the form of an article-integrated type of dissertation where the end product is three ready-to-be-published articles, I have also attempted to present a succinct summary of all the study findings, both the qualitative and quantitative results. The qualitative findings are presented as a schematic portrayal that includes the salient themes regarding women's experiences of food insecurity in Northeastern and Southwestern Ontario. Further, and as advised by my supervisor, I have attempted to visually illustrate the qualitative study findings by utilizing a thematic concept map to portray my study findings. Further, a delineation of the significance of using a concept map in qualitative research is discussed.

The narratives of the women about their experiences of food insecurity in Northeastern and Southwestern Ontario revealed various themes. The salient themes emerging out of the study findings can be divided into four major domains: food and financial hardship, motherhood, resourcefulness and health perception. These themes were influenced by the Northeastern and Southwestern Ontario contexts. Further, the study themes were examined comparatively with a deep sense of the intersection between gender, poverty and geographical place in elucidating women's food insecurity experiences in these two contexts. These findings were also elaborated through additional sub-themes under the rubric of above major themes. For the quantitative findings, age, marital status, employment, household size, income, education, food insecurity variables (consumption of fruit and vegetables, frequency of skipped meals, worries about

running out of food, and affordability of balanced meals) and health region were used as a proxy for food-insecure women's health perceptions. The comparative analysis showed that there were no differences in health perceptions among food-insecure women residing in Northeastern and Southwestern Ontario. Furthermore, the correlation analysis showed that there were significant correlations between household size, employment and income, worries about running out of food, affordability of balanced meals, frequency of cut or skipped meals, and health perceptions of food-insecure women residing in Northeastern and Southwestern Ontario.

Overall, the study findings revealed that various factors affect the health perceptions of food-insecure women in Northeastern and Southwestern Ontario. These factors could be tied to the selected communities' geographical location and resource constraints. The findings are not discussed or elaborated here because they are explored in the subsequent research articles as well as in the discussion chapter. Instead, in the following passages, a thematic concept map is deployed to organize the study findings within the broader contexts of the physical, psychological, socioeconomic, cultural, and structural conditions of Northeastern and Southwestern Ontario. Thus, I note that the following passages contain a discussion around my journey of developing my thematic concept map, including the schematic portrayal of the qualitative study findings as well as the utilization of the concept map in qualitative research.

3.18. Representation of results /Thematic concept map

Generally, one of the long-standing concerns in qualitative research is the pivotal role of the researcher in capturing meaningful interpretations of the collected data to frame the experiences of study participants (Bazeley, 2009; Butler-Kisber & Poldma, 2011; Wheeldon & Faubert, 2009). During the data analysis stage, a concept map is a unique means to visually

represent the study participants' experiences, which may assist researchers in refining their unfolding data analysis and interpretation (Butler-Kisber & Poldma, 2011).

Concept mapping can be defined as a technique that allows researchers to visualize the connectedness and relationships between various concepts (Wheeldon & Faubert, 2009). In general, a concept map includes labeled concepts or themes, connecting words, directional arrows or overlapping circles and other sorts of graphic representation of themes to promote the researcher's understanding of different proposed concepts within a map and eventually the phenomenon under investigation (Wheeldon & Faubert, 2009).

My proposed thematic concept map consists of a circle that represents women's experiences of food insecurity and overlapping squares of emerged themes and sub-themes to denote the intersectional nature as well as the non-hierarchical connections of the emerged themes or concepts. Additionally, the Northeastern and Southwestern Ontario contexts were integrated in a way that embodied the women's experiences of food insecurity zone while surrounding and accommodating all the emerged themes. Further, the way that I created my thematic concept map was based on an analysis of the women's narratives. I identified concepts and themes with emphasis on the placement of the concepts within the map as well as the intersection between and among the different levels of the themes among the sample (Wheeldon & Faubert, 2009).

The integration of a concept map allowed the unique features of each group of women as well as their shared experiences. The design of my concept map allowed me to explore the themes that emerged from each set of interviews with regard to the separate groups of women and with regard to both groups as a whole. Further, each group of women's narratives (Northeastern vs Southwestern Ontario group) was explored with an emphasis on the intersection

of the different concepts as well as the effect of the Northeastern and Southwestern Ontario contexts. Additionally, the concept map also served as a useful way of refining the subsequent data analysis, including the within-group analysis and the cross-group analysis, in order to explore and conceptualize the differences or similarities among the women in terms of their food insecurity experiences in Northeastern and Southwestern Ontario.

Several scholars have argued that concept maps provide a way to creatively analyze complex phenomena and can play a significant role in knowledge translation as well as in capturing the commonality and differences between concepts and the nature of the perceived relationships (Bazeley, 2009; Butler-Kisber & Poldma, 2011; Daley, 2004; Wheeldon & Faubert, 2009). The concept map is a representation which confirmed the integrity of the combining of the two data sets and the decisions about the fittingness of different themes. In addition, concepts mapping offers a creative means of researcher engagement with participants' experiences, narratives and perceptions enabling the researcher to go beyond a superficial analysis of participants' narratives or participant-generated themes to undertake a more in-depth analysis and ultimately gain a broader understanding of participants' experiences (Daley, 2004; Daley & Torre, 2010; Wheeldon & Faubert, 2009). Thus, the use of a concept map assists in the process of identifying concepts and themes as well as the intersection between the emerged themes based on how the researcher frames the participants' experiences.

Interestingly, the evolving diagram with refinement of the meaning of each theme and its attributes challenged my initial analysis of women's narratives. Therefore, logic-based activity was conducted. Moreover, frequent constructive advice, suggestions and feedback from my supervisor and committee member led me to revisit and refine my initial analysis as well as revise theme articulation, various new concept maps were constructed. In this way, and through

additional data analysis refinement strategies, a more complete picture of women's food insecurity experiences emerged. Further, the frequent revisions of the concept map allowed for broader thematic constructions to emerge as well as provided an efficient means to capture significant differences and similarities in the women's food insecurity experiences in different geographical contexts within the sample (Wheeldon & Faubert, 2009). As a visually oriented researcher, I have found the thematic concept map a unique, innovative and interesting means to share and translate my study findings into meaningful knowledge. Moreover, the use of a concept map assisted me to cautiously identify and revise my initial analysis in terms of identifying codes and categories instead of forcing the data to fit with the proposed adopting theory (Bazeley, 2009; Butler-Kisber & Poldma, 2011; Wheeldon & Faubert, 2009).

A plethora of scholars have argued cogently in favor of the value of the thematic concept map as a visual means by which researchers can share their study participants' experiences and perspectives in new and innovative ways (Bazeley, 2009; Butler-Kisber & Poldma, 2011; Daley, 2004; Daley & Torre, 2010; Wheeldon & Faubert, 2009). Further, utilizing a thematic concept map can help to demystify the complexity of the analysis process by offering an opportunity to effectively revise coding and analysis strategies through reviewing a graphic snapshot of study participants' experiences and perceptions (Wheeldon & Faubert, 2009). Moreover, it allows the researcher to visually represent their study participants' experiences in a way that seems to be coherent, compatible and grounded in the selected theoretical framework (Wheeldon & Faubert, 2009).

The utilization of a concept map to display study findings requires that the researcher undertake specific tasks. These tasks allow the researcher to move from superficial discussion and analysis to more abstract interpretations of the study findings (Bazeley, 2009). Thus,

constructing a concept map promotes a deeper understanding of the investigated phenomenon as well as facilitates further exploration of participants' experiences. Moreover, it assists in contextualizing and clarifying the intersecting nature of the emerged themes and the structural and geographical contexts in order to stimulate a powerful argument to convince policy makers and stakeholder to take contextual and evidence-based actions (Bazeley, 2009).

Visual representation of the findings assisted understanding of linkages between and among themes. Further, it allows the researcher to make visual sense of data and promotes tracking of data interpretations during the analysis process and as themes emerge (Butler-Kisber & Poldma, 2011). Through a series of revisions of the concept maps, I tried to understand and explore women's food insecurity experiences and reflect upon the diverse factors involved in shaping these experiences in Northeastern and Southwestern Ontario. These revisions involved the restructuring of ideas with text being analyzed and reduced to small codes, categories and eventually themes that are encircled and then linked by symbols and shapes. Further, a series of revisions of themes, categories and concept maps allowed me to further investigate the dynamics of the interplay and intersection between structural, sociopolitical and geographical issues in conceptualizing women's food insecurity experiences in different geographical contexts (Butler-Kisber & Poldma, 2011).

Once the salient themes and concepts were crystallized and fleshed out, I created a final version of the thematic concept map that visually conceptualizes women's food insecurity in Northeastern and Southwestern Ontario (Figure 3.1). In fact, the final version of this thematic concept map is not only a tidied-up or refined schematic portrayal of the emerged themes and sub-themes, it also shows the complexity of the intersection between women's food insecurity in

different geographical contexts and the various structural, social and political factors that I have tried to unfold and uncover.

Another interesting aspect of the thematic concept map is that it permits the researcher to conceptualize ideas that are difficult and challenging to present in text or words alone. Further, it allows the researcher to create quick visual representations of the phenomena that deepens the analysis and promotes conceptual understanding of the phenomena being studied (Bazeley, 2009; Butler-Kisber & Poldma, 2011).

My proposed thematic concept map revealed the multiple influences and factors required to explore and understand women's food insecurity in Northeastern and Southwestern Ontario. These factors included structural, sociopolitical, contextual and environmental factors. Further, the schematic portrayal of the emerged themes and sub-themes revealed that the core of these factors was the dynamic intersections between the different variables (e.g. gender, geographical place, health, hardship and homelessness) and women's food insecurity experiences in Northeastern and Southwestern Ontario.

This suggests that women were not only struggling with food insecurity and with their personal sense of responsibility and sacrifice to maintain healthy food and housing for themselves and their dependents, but also with the unavoidable contextual factors of being resident in Northeastern and Southwestern Ontario. This noteworthy interaction allowed me to step outside the constraints of straightforward thinking and to engage in intertwined brain activities to tease out some ideas and connections in the available data that could otherwise have remained unstated. By doing so, it became apparent that my analysis was pushed to a deeper and more abstract level.

One advantage of using a thematic concept map in my study was that it allowed me to reduce the tremendous amount of data in a meaningful and efficient way (Bazeley, 2009; Daley, 2004; Poldma & Stewart, 2004; Wheeldon & Faubert, 2009). Further, it also allowed me to capture the richness of the women’s meanings as well as facilitate my understanding of the intersections and meanings in the data in my within-group and cross-group analyses. This process of creating the one-page map facilitated the process of highlighting the differences and/or similarities in women’s food insecurity experiences within and across Northeastern and Southwestern Ontario (Daley, 2004).

To sum up, adopting and creating a thematic concept map can leverage and advance the analysis and interpretation of the data and the presentation of the study findings. The above discussion reveals and demonstrates that the thematic concept map has several advantages and challenges in relation to its use in qualitative research. However, despite its challenges and complexity, the concept map can serve as a pivotal strategy to advance qualitative data analysis and interpretation and it is worthy of implementation and use.

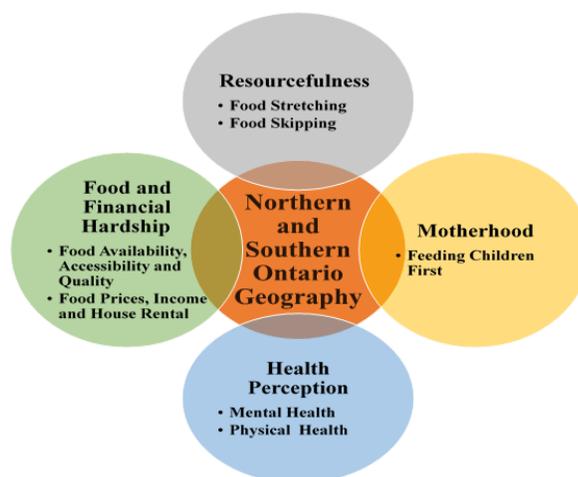


Figure 3.1: Key themes in women’s food insecurity and health

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Chapter 4

4. Paper 1: Food Insecurity and Women's Health in Canada: Does Northern and Southern Ontario Residency Matter?¹

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Abstract: In the last decade, a massive body of research on food insecurity and health among women has emerged in different disciplines, including nursing, social work, psychology and health geography. A conceptualization explored in the current paper links food insecurity with geography, coping strategies and health by deploying an intersectional lens to identify successful coping mechanisms and the development of resilience in women living in poverty. A review of the literature reveals that, despite increasing interest in the health implications of food insecurity across multiple health and social disciplines, little is known about women's food insecurity in different geographical contexts. This study addresses this gap in knowledge by exploring women's experiences of food insecurity and the perceived impacts on their physical and mental health in the city of Greater Sudbury in Northern Ontario and the city of London in Southern Ontario, Canada. A purposive sampling technique was used to recruit 20 women from sites where services are provided to poor and/or homeless women. Individual semi-structured interviews were conducted, audio-recorded and transcribed verbatim. The transcripts were subjected to thematic analysis using NVIVO 11 software. The themes that emerged are congruent with the selected theoretical framework (intersectionality). The key themes identified include food and financial hardship (e.g., food availability, accessibility and quality, food prices, income and rent), motherhood (e.g., feeding children first), resourcefulness (e.g., food skipping and food stretching) and health perception (e.g., physical health, mental health). The study's findings have implications for the development of strengths-based and community-based interventions targeting women experiencing food insecurity.

Keywords: Food Insecurity, Women's Health, Geographical Context

Food, environmental contexts and health all play an important role in women's lives, affecting what they eat, how they eat, and where they live (Hogan et al., 2016). While food insecurity and health has been a focus of attention in numerous disciplines for some time, the issues of women's food insecurity and health in different geographical contexts have been under-researched and even neglected in public health policy in Canada. However, it is worth noting that the relationship between health and women's food insecurity is emerging as a major area of interest in Northern and Southern Ontario. This is because an understanding of how geographical location and gender inequalities are related to food insecurity and health is crucial within the socioeconomic and political contexts of Northern and Southern Ontario communities that are characterized by constraints in public funding.

In 2014, around four million people in Canada struggled with some level of food insecurity—a number which equates to nearly 13% of Canadian households (Collins, Power, and Little 2014). Household food insecurity is, in effect, a significant health problem that is primarily caused by financial insecurity (Collins, Power, and Little 2014). Food Banks Canada (2016) has reported that around 840,000 Canadians approach food banks to obtain groceries. Recently, more than one in ten Canadians has experienced some form or other of food insecurity and, over the last five or six years an increasing number of families are depending on food banks each month (Buck-McFadyen 2015). Moreover, the number of female-headed households in Canada that are characterized by poor economic status has increased dramatically. Given the financial constraints encountered in the experiences of food-related challenges faced by women in different geographical contexts (e.g., in Northern vs. Southern Ontario), special attention and consideration should be given to women's food insecurity and its effects on their health, nutrition, and behavior (Ivers and Cullen 2011). However, research and data exploring food insecurity and its impact on women's health in various communities are scarce, and thus the topic requires further investigation (Gates et al. 2013).

Arguably, the geographical and residential context may interfere with women's healthy eating due to various key factors, such as a lack of variety and availability of food, lack of accessibility to food, financial insecurity and increased food prices. For instance, in some Northern Ontario communities, the cost of food is double that reported in Southern Ontario (Gates et al. 2012). This differential in food prices suggests that the distance between communities and major urban centers may significantly affect the availability and quality of healthy foods (Gates et al. 2013). Further, increased shipping costs to Northern communities seems to decrease the availability and accessibility of food, increase food prices and ultimately affect the trends and patterns of women's food intake in such communities (Gates et al.

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2013). Thus, strategies and initiatives that target women's food insecurity and health in different residential settings may be more efficient and beneficial if they are community-based and take geographical contexts into consideration.

It is a quotidian reality that female-headed households dependent on social assistance are at increased risk of experiencing food insecurity, and that food insecurity, in turn, affects the overall health outcomes of women and their dependents (McIntyre, Bartoo, and Emery 2014). Thus, an exploration of the multidimensionality of women's food insecurity and its potential connections to their residency, manifold daily financial struggles and overall health is clearly needed. Further, addressing women food insecurity, poverty and its health-related challenges in different socioeconomic, structural, geographic and political contexts is essential in enabling Canada to show its commitment to the amelioration of women's economic and social rights, including the right to healthy food (Yarema 2013).

Researchers have explored household food insecurity in relation to gaining a theoretical understanding of food insecurity from an intersectionality perspective, as well as elucidating its connection to obtaining sufficient food of proper quality to meet the nutritional needs of all household members (Motbainor, Worku, and Kumie 2016; Glanville and McIntyre 2006; Wicks, Trevena, and Quine 2006; Goodman 2009; Beaumier and Ford 2010; Dammann 2010; Barrett 2011; Jilcott et al. 2011; Sharkey, Johnson, and Dean 2011; Dharod, Croom, and Sady 2013; Loopstra 2014; Page-Reeves 2014). An extensive review of the literature on women's food insecurity has revealed that there are several issues and determinants that intersect with women's food insecurity, specifically within the context of different geographical locations (Goodman 2009; Liu 2014; Loopstra 2014; McCullagh 2012; Polsky et al. 2014; Sharkey, Johnson, and Dean 2011). These determinants include but are not limited to food availability and accessibility, food prices, inadequate income, weather challenges, marital and educational status of the household, fragile institutional capacity and inadequate infrastructure and social services (Sharkey, Johnson, and Dean 2011; Calhoun 2013; Camel 2014; Loopstra 2014; McCoy et al. 2014; Barbeau et al. 2015; Buck-McFadyen 2015; Palar et al. 2015; Dutta et al. 2016; Motbainor, Worku, and Kumie 2016).

In fact, women's food insecurity is primarily due to socioeconomic, structural, geographical and local environmental factors that affect the freedom and the purchasing power exercised by household members, which in turn affects income distribution in the household (Loopstra 2014; Page-Reeves 2014; Polsky et al. 2014; Barbeau et al. 2015; Motbainor, Worku, and Kumie 2016; Carter et al. 2012). These factors highlight the potential role that the community context, residency and environment could play in preventing and/or reducing women's food insecurity and consequently improving their health. Moreover, policy makers and stakeholders that provide food security interventions could take into account the complex interactions of community-based contextual and environmental issues and perhaps modify or completely change their existing interventions.

Geographically speaking, a typical conceptualization that considers women's food insecurity and its connection to health in different geographical locations may improve women's coping under stressful circumstances. For instance, Shaikh and Kauppi (2010) have argued that, in Northern Ontario, the geographical, structural and contextual conditions, including limited resources and services, are mainly responsible for women's health-related struggles. Indeed, the geography and challenging climatic conditions (e.g., long and cold winters, farming practices), as well as the housing issues in both Northern and Southern Ontario may exacerbate women's struggles with respect to household chores, child-rearing responsibilities, and efforts to ensure that their food and health needs are met (Shaikh and Kauppi 2010; Wanless, Mitchell, and Wister 2010; Holland, Kennedy, and Hwang 2011; Sharkey, Johnson, and Dean 2011; Carter et al. 2012; Tonn 2012; Camel 2014; Polsky et al. 2014; Barbeau et al. 2015).

In fact, food insecurity is one of the contributing factors to women's various illnesses in Northern and Southern Ontario, including a higher rate of diet-related chronic diseases such as heart disease, diabetes, hypertension, anemia and thyroid problems (Barbeau et al. 2015). Further, food insecurity is associated with poorer health, physical limitations, obesity, anxiety and depression (Sano et al. 2011; Gates et al. 2012; Gates et al. 2013; Glanville and McIntyre 2006; Jilcott et al. 2011; Liu 2014; Prezzato 2015; Rodriguez et al. 2013).

The high food prices and the low availability, accessibility and quality of food in the Northern regions of Canada seem to be due to the fact that the current food systems in those regions depend on imported foods due to climate challenges (Barbeau et al. 2015). As such, there is a need for feasible community-based policy initiatives to combat the root causes of food insecurity and health inequities among women in specific regional contexts. For instance, Kirkpatrick et al. (2015) have suggested that the pricing of staple foods and the donation-based status of food banks may influence women's food security status, and ultimately affect their access to healthy foods and overall health.

An investigation of food insecurity and women's health in the contexts of Northern and Southern Ontario may reveal how the nature, trends and patterns of women's food insecurity are tied to the socioeconomic, political and structural constraints that determine women's quality of food (Page-Reeves 2014). Further, exploring women's food insecurity and health in Northern and Southern Ontario from geographical and socio-cultural perspectives may show how the distribution of power, money and resources ultimately affects women's health. Therefore, this study presents a community-based comparison of food insecurity and health among women in Northern and Southern Ontario,

specifically in cities of Greater Sudbury and London Ontario, respectively. The study aims to fill a knowledge gap by exploring and comparing the experiences of food insecurity among poor and/or homeless women in these two locations, and the impact of these experiences, on women's health. This research will also discuss how food and financial insecurity, place of residency and geography, health and gender intersect in the context of health frameworks in Canada. Further, this study's findings show how financially insecure women in different geographical contexts creatively adopt a range of strategies to manipulate their own food and health-related needs to cope and survive.

Method

Sample and Recruitment Procedure

This study utilized a qualitative design and took place in the urban communities of Greater Sudbury in Northern Ontario and London in Southern Ontario. The women who participated in the interviews conducted for the study were residing in the urban core of these two cities at the time of the study. Indeed, Greater Sudbury is sparsely populated including the unincorporated townships and First Nations reserves, comparing to London Ontario and the areas surrounding that characterized by multicultural population. Within the current study, most of the women resided in the urban core of Sudbury and outlying rural areas. The interview settings were at agency premises and sites where services are provided to homeless persons and those at risk of homelessness. Such sites are situated in areas with an increasing incidence of homelessness and food insecurity. Poor and/or homeless women constitute a hard to reach population, so the study was built on existing relationships of trust among community partners who work closely with the researcher and the participants. After obtaining ethics approval from Laurentian University, data collection was designed and carried out in collaboration with those who work most closely with the participants. Thus, the participants were recruited via community service agencies such as food banks, meal programs, community-supported shelters and housing programs. The recruitment of the participants continued until saturation was achieved. Purposive sampling was utilized to recruit 20 women (ten women from Sudbury and ten women from London). The selected participants were those who the researcher judged would be best able to answer the research questions and enhance the understanding of the phenomenon under study. The participants were considered suitable if they (i) were part of a married couple, a common-law couple, a caregiver or a lone-parent with a child/children or grandparent/caregiver with custody of a child/children; (ii) had experienced an episode of homelessness or near-homelessness and food insecurity in the 12 months prior to the commencement of the study; (iii) were able to recall and articulate conscious experiences of food insecurity and homelessness in the English language; and (iv) had accessed shelters or meal programs in the 12 months before the study started. The interviews in Sudbury were conducted by staff of the Poverty, Homelessness and Migration Project (PHM), while those in London Ontario were conducted by the researcher. In both locations the same interview questions and guide were used. After gaining consent from the participants, individual semi-structured interviews were conducted by posing open-ended, questions in a respectful, non-judgmental and non-threatening probing manner. The interviews were audio-recorded and transcribed verbatim.

Analysis

Thematic analysis was used to analyze the narrative data, and the meaning context was used as the unit of analysis for coding and description. This means that the data were not coded sentence by sentence or paragraph by paragraph, but rather coded for meaning (Braun and Clarke 2006). Each transcribed interview was read entirely, and the researcher immersed herself in the data to get a sense of the whole text and dataset. Based on the advice of the research team, decoding and de-analyzing were conducted to ensure that the analysis was conducted in line with the geographical context and the selected theoretical framework. NVIVO 11 software was used for the management and analysis of the qualitative data. Initially, all the relevant statements and concepts in the text were highlighted, analyzed and coded separately. A comparison of themes across and within the two groups of participants was then conducted in order to identify the similarities, differences, convergence and divergence of women's experiences of food insecurity in the Northern and Southern Ontario contexts. The major themes were labeled, and all the potential sub-themes, connections and intersections that emerged from the data were listed together with the major themes and included in the portrayal of each theme to reveal a rich description of women's food insecurity experiences. Note that in the discussion of the findings pseudonyms have been used for the participants to ensure confidentiality.

Theoretical Framework

This study sought to bolster the robustness of the findings by adopting a sound methodology based on intersectionality theory. It has been stated that the deployment of intersectionality may help voiceless, oppressed, poor and/or homeless women confront various forms of oppression, and may change their state of voicelessness into one that reflects an empowerment-based agenda (Chun, Lipsitz, and Shin 2013). The adoption of an intersectional lens to focus on the struggles of poor and/or homeless women assists in gaining an understanding of identities that are multidimensional, flexible, dynamic and dialogic. Moreover, an exploration of the food insecurity experiences of poor and homeless women from an intersectionality perspective contributes to promoting our understanding of the complex interaction of different forms of disadvantage. These forms of disadvantage may include social identity, location and gender, which are jeopardized at the level of everyday life experiences or in social organizational practices (Grabham et al. 2008). It is worth noting that a central target of intersectionality is the social inclusion of previously oppressed and marginalized populations such as poor and/or homeless women. Indeed, it has been argued that intersectional research that is grounded in lived experiences may provide the essential foundation for the pursuit of social justice (Hankivsky et al. 2010; Shields 2008; Davis 2008; Carastathis 2014; Bowleg 2012; Bauer 2014). Thus, it can be said that intersectionality provides a more comprehensive insight into how women's social identities intersect in complex ways to reveal social inequality and discrimination.

One of the goals of intersectional research is to strive toward women's empowerment. The achievement of this goal calls for the initiation and development of coalitions and strategic alliances to mitigate poverty, social exclusion, marginalization, and subordination including food insecurity among poor women (Hankivsky et al. 2010; Bowleg 2012). The accomplishment of such a task may require distinctive definitions of women's lives and allow their multiple identities to intersect with a commitment to empower those who have been historically oppressed. Indeed, it is important to explore women's food insecurity by establishing mutual connections among women's multiple identities and seeking support within a larger socio-cultural, economic, political and geographical context. In fact, these connections among women's multiple identities are compatible with the core assumption of intersectionality with its emphasis on the intersecting identities of people from historically oppressed and marginalized groups such as poor women (Hankivsky et al. 2010). Consequently, deploying the intersectionality approach in this study by informing interview questions and initiating labeling of categories and themes may contribute to promoting women's health in different geographical contexts at the intersection of high- and low-status identities (Hankivsky et al. 2010).

Major Findings

Figure 4.1 illustrates the key themes and related sub-themes that reflect women's food insecurity and health in a thematic concept map developed for this study.

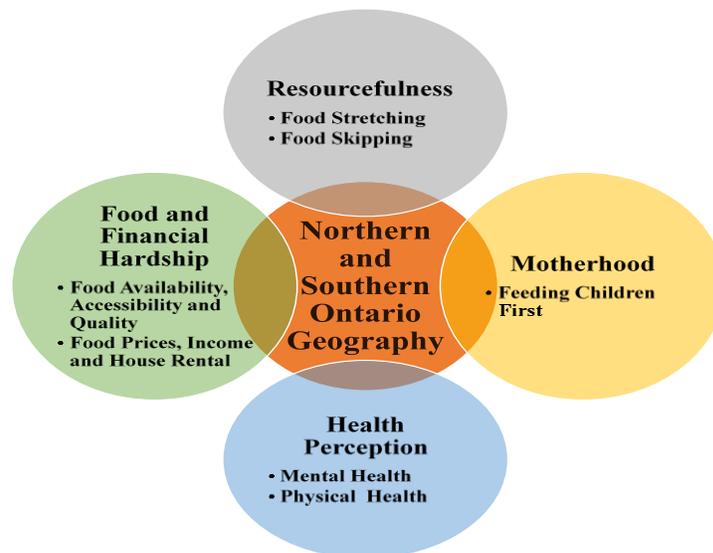


Figure 4.1: Key themes in women's food insecurity and health

Geography of Northern and Southern Ontario

The Northern and Southern Ontario contexts consistently emerged across several sub-themes in this study; one such sub-theme concerned the impact of the geography and socioeconomic structure of Northern versus Southern Ontario on women's food insecurity and their health. The participants consistently asserted the various impacts of climate change, place of residency and geography on their health and well-being, and the role that geography plays in relation to poor and/or homeless women's food insecurity and health in the context of a changing climate. This theme illuminates the complexity and the intersecting nature of the ecosystem, gender, place, services, health and the community. Although the geographical contexts of Northern and Southern Ontario differ in a few ways, one prominent difference that is relevant to food insecurity is the scant number of public food programs and initiatives in place in Northern Ontario to provide assistance to vulnerable households such as poor and/or homeless women. In fact, an appreciation of place and geography is critical for understanding the full range of women's food insecurity experiences and their influences on health. For instance, negative physical, mental and emotional health impacts were predominantly reported by women residing in Northern Ontario compared to women residing in Southern Ontario. Indeed, the geographies of Northern and Southern Ontario seem to pose various challenges and barriers such as inadequate or limited resources and services, with the long, cold winters of Northern Ontario having a particularly negative impact on food availability and accessibility. The participants revealed how the expansive geography of Northern Ontario made it difficult for women residing in the Sudbury area to gain access to community and food-related services, and ultimately health. In contrast, residency in Southern Ontario seems to afford better opportunities for women's employment due to this area's socioeconomic structure which may enhance women's income and intake of healthy food. From the interviews, it would appear that these opportunities may not be readily available for women in Northern Ontario. Indeed, women in Northern and Southern Ontario have distinct experiences of food insecurity that illustrate the complex interaction of food insecurity, poverty, homelessness and poor health outcomes that occurs in different geographical contexts. Jane and Sunny explained how residency and geography had an impact on their food insecurity and health:

I would rather stay in Southern Ontario. Because I like the bush and I like trees. London is like a multicultural community with a great resources and services. I have a physician (a specialist) and here [at an agency] I can have food, I am comfortable where I am. We are in a better situation than those in further north with the snow and cold; I would chop up my arm before going there. (Jane, Southern Ontario)

I have bags of food and stuff, I just carry everything, and I can walk to [a food bank in] couple of minutes I guess. But in the winter, if it's too cold I find it hard being outside for like two minutes to reach food banks or soup kitchen, it's hard to find food and transportation to reach services, it's freezing. (Sunny, Northern Ontario)

Food and Financial Hardship

The majority of the participants discussed the multiple difficulties and challenges that they encountered regarding food insecurity and homelessness. However, invariably, the concern that was most frequently articulated by all the participants was financial constraints and hardship. Indeed, financial circumstances constantly shape these women's daily life. The food and financial hardship theme is divided into two sub-themes that relate to women's perceptions of (i) food availability, accessibility and quality; and (ii) food prices, income and rent.

Food Availability, Accessibility and Quality

The women explained that food is more than a commodity to be bought and sold and that the availability of nutritious and healthy food choices and the quality of diet were associated with where they live. Embedded within this narrative it was apparent that many participants believed that they faced explicit forms of discrimination because they were poor and homeless. Further, they asserted that place and geographical location mattered when describing their lived experiences of food insecurity and health. In addition, it was clear that geographical place also mattered when they conceptualized food availability and accessibility to healthy food against the background of the current intricacies of the distribution of community resources and the complexity of service delivery to poor women. Further, the availability, accessibility and quality of healthy foods may influence the purchasing patterns, dietary intake, and healthy food choices of poor women. Also, women stated that hunger and food insecurity was a prevalent problem that could affect their entire life and that a key factor in the availability of healthy food may be related to accessibility

to food-related community services such as food banks and soup kitchens. Generally, poor women are more dependent on public transport or walking to access grocery stores. Indeed, many women in both Sudbury and London Ontario stated that many grocery stores were now located in the inner city, which leaves many of them outside the catchment area of such stores. Further, because poor women are less likely to have access to a vehicle or other transportation options for their grocery shopping and are limited to purchasing what they can carry and how far they can walk in challenging weather, they often depend on smaller stores in which food prices are higher and fresh fruit and vegetables are limited. Participants in both Northern and Southern Ontario reflected the more widely held view that food received from food banks or other food-related services lacked the proper nutrients. They described it as consisting of starchy foods like pasta and potatoes and lacking in fresh fruit and vegetables as well as protein from foodstuffs such as eggs and milk. In Southern Ontario, Lulu spoke about the lack of nutritious foods such as fresh fruit, vegetables and dairy products. In Northern Ontario, Candy also spoke to need for more nutritious foods but emphasized her experience of having to face the challenge of obtaining enough food, regardless of the quality. Lulu and Candy reported:

I go hungry a lot [crying] and I am always worried that I am not going to have enough food but I utilize food banks. Unfortunately, food banks don't give you enough food or fresh fruit, they will give you carrots and potatoes but there is not fresh fruit, you don't get eggs, cheese, milk, yogurt, like all the things that kids need for proper nutrition. (Lulu, Southern Ontario)

It's hard to get food lately. Like I said, sometimes it gets really hard where I just eat, because you can only go to one place so many times. But they don't, give enough vegetables in the soup. It's just broth and all that and like all the starches that are not good for you, that's not really healthy what they feed. It fills your belly, but it does nothing to you nutritiously. (Candy, Northern Ontario)

Food Prices, Income and Rent

The women explained that their low income, when combined with having to pay high rent and food prices, influenced them to make less healthy decisions. Regardless of whether they resided in Northern or Southern Ontario, the women stated that being on welfare or Ontario Disability Support program (ODSP) posed challenges in terms of maintaining a healthy diet and living in suitable housing. Further, they reported that the affordability of food was a significant problem especially for poor women receiving social assistance and it is constantly connected with house rental and food prices in both regions. Indeed, women residing in both Sudbury and London Ontario stated that the financial circumstances for poor women on social assistance were becoming increasingly dire. Specifically, women residing in Sudbury reported that food prices had doubled in comparison to the preceding year due to weather challenges and the cost of transporting food to Northern Ontario. They reported that they dealt with the increased costs of food and housing by reducing their meat, vegetable and fruit consumption, and by turning to less-expensive brands in the grocery store. Similarly, women residing in London Ontario stated that low-income households basically bought food of lower nutritional value in order to make ends meet. Low-income families and poor women usually purchase foods with higher carbohydrate, sugar and fat content, such as cured meats and canned fruit and vegetables, as well as starchy food with a higher calorie content. Women in both Sudbury and London Ontario explained that, if they made less money, they would struggle more than others in terms of maintaining a healthy food intake and paying the rent. Moreover, women in both regions of the province identified low incomes and the high cost of housing as problematic and as having an impact on their ability to purchase food. Women in both regions stated that the cost of house rental was a significant burden and challenge that often left them with little income to spend on food. Given the increased housing and food prices in Northern and Southern Ontario, it is not surprising that accessibility to affordable and healthy food is often an ongoing challenge for the poor. In essence, several of the participants in both regions stated that they were unable to maintain a healthy standard of food and housing because the amount of money they received from public assistance was inadequate to cover the cost of rent and food. The interconnectedness of food prices, income and rent was poignantly addressed by Karen and Sam as follows:

Being on ODSP and paying house rental, I pay a lot of money for rent. I pay \$1200 for rent. And, what I get after that is \$400. So, that doesn't go far with your kids, like you go to [a low-cost grocery store] and everything, everything is going up, smaller but going up, the prices, so, it's difficult, it's very difficult being on ODSP and welfare is very difficult, you do struggle. (Karen, Northern Ontario)

Because the income is low. I mean I have to pay my rent, have to pay my phone. So, given all my bills I limited my income for food. Usually when I do groceries, I'll do like hundreds of dollars of groceries. And, it's difficult. It's difficult because it's hard. (Sam, Southern Ontario)

Motherhood

The second major theme, motherhood, involved feeding children first. From the perspective of the participants, motherhood is a central construct that shapes their experiences of food insecurity. Indeed, they constantly described in powerful ways the enduring nature and multiple challenges of motherhood that compromised their food intake to save food for their children.

Feeding Children First

A commonly heard theme from all the participants was the feeding of children first and its connection to poverty and food insecurity. Most of the participants believed that being poor women/mothers with children was in and of itself a hardship. These women approached motherhood prepared for all types of challenges they might encounter in order to satisfy their children's hunger. The majority of the participants stated that they were prepared to make sacrifices in order to save some food for their children. These sacrifices were shaped and influenced by women's actual experiences of different forms of food insecurity. One way many coped with balancing food insecurity and their children's food needs was to change their own eating patterns. Motherhood and feeding children first was a defining feature of the women's experiences of food insecurity in both Sudbury and London Ontario and this feature affects both their physical and mental well-being. The decontextualization of poor and/or homeless women's sense of motherhood associated with multiple social identities in different geographical contexts, contributes to various forms of oppression and discrimination. This sense of motherhood associated with food insecurity is frequently molded by various rules, regulations and geographical contexts that neglect the complex and intersecting vulnerabilities that poor and/or homeless women face on a daily basis. In fact, the study participants seemed aware of the consequences of food insecurity and they perceived this awareness as an explicit form of inequality in their life. However, both groups of participants described and shared their willingness to overlook hunger as a manifestation of a mother's sacrifice, with one of the participants describing her situation like living on the edge. Some of the other participants' perceived vulnerabilities were visible when they approached and utilized food banks. Karen and Lulu explained their similar experiences:

I'm not going to eat, just to make sure my kids have stuff. I do everything I can to make sure, but sometimes it's hard. Like it's really pinching. It's like at the edge. I do everything that I can. I'll do anything to make sure my kids are okay, anything I can. (Karen, Northern Ontario)

Well to be absolutely honest I don't really make anything for myself, just whatever my kids don't eat. Like if they don't finish something or they are full if they don't eat it then that's what I eat, I am that person who feeds her kids first. (Lulu, Southern Ontario)

Resourcefulness

The major theme of resourcefulness included two sub-themes: food stretching and food skipping.

Food Stretching

The women related that they approached and utilized community resources and services to stretch their food budget and make ends meet in order to mitigate their experiences of food insecurity. Most of the women said that being poor means one has to work to figure out how to stretch a dollar, and they constantly stated that it was impossible to divorce their experiences of food insecurity from community resources. The core narrative of food stretching implies that women's food insecurity is accompanied by multiple tensions of eating on a budget, which are associated with women's multiple social identities and the intersections of individual, social, structural and political dimensions. All of the participants in both regions experienced and reported stretching their food budget. Further, they stated that their food insecurity experiences, social identity and geographical location were intertwined with their marginalized situations including poverty and homelessness where discrimination and oppression are prevalent. While some of the women reported that they were not satisfied with the services provided by community resources, others appreciated the services that they received with regard to food and shelter. Canou and Sam commented on a number of services through which they had accessed food:

I run out of food and money several times and I went to food banks and over to my friend's place every time it happened, asked if I could borrow a little bit of this, and a little bit of that, hmm, just until pay day would come along. This is my way to make ends meet. It's hard, it's very hard sometimes. (Canou, Northern Ontario)

I don't have money for food. I have money for soup kitchens because it doesn't cost me anything and that allows me to save some money for other groceries or rent. So my main source of food is food banks, soup kitchens and such that how I save my money for food or bills. (Sam, Southern Ontario)

Food Skipping

The women explained that every desire that demands satisfaction and every need to be met forces the individual to initiate a process to satisfy that desire or need, such as the need to satisfy their hunger. They reported several strategies they employed to satisfy their hunger and food needs, including skipping meals, rationing food, stealing, eating from the garbage, and exchanging sex for food. Indeed, women's adoption of food skipping as a process of resistance arises from interlocking systems of oppression and various forms of social exclusion including gender, negative stereotyping, place and poverty that hinder or prevent poor and/or homeless women from being effectively engaged in the development of their communities. Further, the women characterized food skipping as a survival strategy, and they perceived their life with food skipping as being "on the edge" or "on the margins," and being shaped by the predominant and interlocking structures of domination. Through these various structures poor and/or homeless women struggle to promote their sense of self and resilience and to enhance their sense of agency. The majority of the participants in Sudbury and London Ontario shared similar experiences of food skipping and they described it as a pervasive and recurrent feature of their daily life. It is worth noting that all the participants frequently skipped more meals on Saturdays and Sundays because the majority of community resources and food-related services are closed on the weekend. Susan and Hassan commented on food skipping and some of their hunger satisfaction tactics:

I would only buy the basic stuff, now we run out of that so fast that we literally go hungry and for sure I skip meals often. Sometimes, I get going and don't eat anything for the whole day. (Susan, Northern Ontario)

I was starving. Every day I skips a meal. I am lucky if I have one meal per day. Sometimes I just eat maybe twice a day, to save some for the next day. Because I can't eat it all in one day, or I won't have any for the next day. I know it's wrong to skip but I mean I am tired of skipping, hungry and stealing. (Hassan, Southern Ontario)

Health perceptions

The fourth major theme was about perceptions of health, both physical and mental. Given the increasing range and impact of food insecurity on the health of poor and/or homeless in different places and geographical contexts, an intersectional analysis of health care and women's health determinants is worth conducting. Further, a comprehensive understanding of the dynamic relationship and intersection between gender, health and place may be particularly useful for interpreting poor and/or homeless women's health perceptions and relationships both within and with a variety of healthcare settings and various geographical places.

Physical Health

Both groups of women addressed the physical health consequences of food insecurity, arguing that food insecurity is associated with unhealthy diets. Women in both regions explicitly stated that healthy food was required for good health, but that healthy food was expensive, and their financial struggles made it difficult to maintain their health and/or prevent some health concerns. The women discussed how living in food-insecure households influenced their physical health, for example, related to weight change problems, poorer oral health, and a greater likelihood of suffering from chronic conditions such as diabetes, hypertension and cancer. For instance, women residing in Sudbury reported that they faced more difficulty and challenges in accessing fresh fruit and vegetables in their communities compared to women residing in London Ontario. Therefore, they are often more likely to have higher rates of obesity, diabetes, heart disease, cancer and other diet-related diseases. Further, women in both regions of the province emphasized the role of food in promoting well-being, better health, and reducing the risk of developing diseases. Moreover, women reported that food insecurity also made it difficult to manage their existing chronic conditions such as diabetes, food allergies and arthritis, and they explained that food insecurity and health were connected in a cyclical pattern. Basically, when women had inadequate food intake, their health conditions worsened, and then because their conditions worsened it affected their food intake. This cycle meant that they were critically constrained in their ability

to control the quality and quantity of food they consume (e.g., Hassan being unable to walk and Carrie not wanting to eat):

Well, I used to go to the food bank up, but I couldn't make it up there because of the arthritis in my legs, my back problems and finding out I have fibro and I might have bone disease. So, bringing up everything, it's very hard. (Carrie, Northern Ontario)

I have cancer and I have rheumatoid arthritis. I can't walk very well. I have type-2 diabetes. Cancer of the colon, diabetes type-2, which is probably because I hadn't been eating right because I hadn't had the money to have meat. I bet you ailments are from not having money to eat. I get the feeling that's why I'm so sick because I couldn't eat right all my life. I never had money. (Hassan, Southern Ontario)

Mental Health

Inherent in the narratives shared by women from both regions was an intense sense of mental health deterioration associated with food insecurity. Most of the women perceived that food insecurity had been linked to their anxiety, depression and other psychiatric disorders. Further, the majority of the women reported that food insecurity co-occurred with depression, suicidal ideation and substance abuse. Women from Sudbury and London Ontario repeatedly described feelings of worry, hopelessness, desperation, exclusion and being different. Regardless of region, striving for mental health and well-being was perceived as “a day-to-day struggle” that originated from within the women. The participants shared various stressful circumstances that had affected their mental health; these stressful circumstances were depicted as “demanding/trying to get rid of poverty/it's my everyday being tense and frustrated/nothing to do/no money no food to do anything.”

The majority of the participants in both areas of the province stated that they had experienced depression and anxiety, and some of them had made some unsuccessful suicidal attempts while dealing with their food insecurity. Further, all the study participants reported that they felt a strong sense of vulnerability and oppression in their life that was compounded by a sense of negligence, feelings of contempt and marginalization. For instance, some of the Aboriginal women residing in Sudbury reported ambiguous feelings regarding their sense of belonging to the geographical place in which they were currently living or their painful memories of growing up on a reserve, their experiences of food insecurity and relying on fish and hunted animals. Similarly, some of the Aboriginal women residing in London Ontario reported that visiting a reserve triggered some painful memories and emotions of discrimination, oppression and marginalization. However, all the Aboriginal women in both regions stated that they were still experiencing hunger and missed the taste of hunted meats. Generally, all the participants suggested that solving their food insecurity problems was an important issue in their life and that finding a solution might improve their mental health. Some of the women mentioned the healing power of writing about traumatic events to promote their mental health. Indeed, some women find that writing exercises about their stressors may help to give meaning to a traumatic memory to transform it to a positive benefit. Candy and Makayla explained this approach:

I'll tell you, when you have food, your whole world kind of wants to change but if you're hungry your body and your mind is damaged . Yeah, I kind of went into a little bit of a depression and then stayed, and then the next thing that comes along is that you try suicide, I mean it goes with my moods too. My stress level is really high and I can't eat. So that's hard too. (Candy, Northern Ontario)

I suffer from panic, anxiety, and depression major. I think being hungry and not having enough or healthy food that is one of the biggest issue in the illnesses I have. I don't feel hungry because of pain or stressed out. That's when I sleep. I have about a 100 journals full I have to write and that calms me down. That's my mental health it's writing. Is it weird? (Makayla, Southern Ontario)

Reflections and Discussion

The study findings reveal that food insecurity is a prevalent problem among poor and/or homeless women in both Northern and Southern Ontario that jeopardizes almost every aspect of their life, including their access to healthy food and housing. In reflecting on the analysis undertaken for this study, it can be argued that the findings reveal the importance of utilizing the key assumptions of intersectionality theory, specifically the notion of the complex interaction of different forms of disadvantage among poor and/or homeless women. Moreover, the study findings support the persuasive idea that women's food insecurity and health in a particular geographical area may be influenced not only by the sociopolitical contexts of that area, but also by the area's geographical context. Moreover, poor and/or homeless women are constrained by the gendered nature of their relationships and the challenges they face with regard

to the availability and accessibility of community services and resources. Consistent with previous research, women in this study reported that the food they received from food banks tends to be starchy, canned, and lacking in protein, fruit and vegetables (Health Canada 2012; Laraia 2013; Rose 2014; Zenk et al. 2011; Tarasuk, Mitchell, and Dachner 2016). The participants in this study also believe that there are physical and mental health consequences associated with their unhealthy diets. The participants also stressed their usage of certain practices (e.g., food stretching and skipping) to cope with and combat food insecurity, which could have long-term implications for their health and well-being. They also emphasized the role of food in promoting well-being, better health, and reducing the risk of developing diseases. These findings are consistent with the burgeoning literature on women's food insecurity and its impact on physical and mental health (Barrett 2011; Camel 2014; Crawford et al. 2015; Dharod, Croom, and Sady 2013; Hogan et al. 2016; Jilcott et al. 2011; Kirkpatrick et al. 2015; Liu 2014; Olson 2005; Prezzato 2015; Rodriguez et al. 2013; Sharkey, Johnson, and Dean 2011; Timmermans 2009). In addition, the study findings are congruent with previous research findings of health inequities experienced by women in different communities (Gates et al. 2013; Collins, Power, and Little 2014; Calhoun 2013; Beaumier and Ford 2010). Nevertheless, the numerous health challenges that these women continue to experience shows that there is still a general lack of understanding about women's experiences of food insecurity.

The narratives of the women in this study provide a comprehensive contextual picture of the daily life of households experiencing food insecurity, as well as a robust depiction of women's strengths and the sacrifices they make in response to food insecurity. Indeed, another prominent theme that emerged from the narratives of these women is their strong sense of motherhood and love for their children that drives them to make personal and social sacrifices (e.g., no leisure or recreational activities). This theme is also evident in existing literature which reports that women experiencing food insecurity often make sacrifices to ensure that their children are healthy and not hungry (Arabindoo 2016; Buck-McFadyen 2015; Kempson et al. 2003; Kempson et al. 2002; Nielsen, Lund, and Holm 2015; Page-Reeves 2014; Rose 2014). The experience of motherhood-related responsibility and its connection with personal sacrifices under the shadow of food insecurity has also been captured and congruent with previous studies (Arabindoo 2016; Evans 2015; Hamelin, Beaudry, and Habicht 2002; Harvey 2016; Nielsen, Lund, and Holm 2015; Rose 2014).

Finally, this study's results are also congruent with much of the published literature that highlights how social and agricultural policies shape the day-to-day reality and experiences of women and their children (Buck-McFadyen 2015; Harvey 2016; Jarrett, Sensoy Bahar, and Odoms-Young 2014). The study findings support the idea that women's food insecurity and health may be influenced not only by the sociopolitical context of the area in which they live, but also by the area's geographical context. A comprehensive understanding of the dynamic relationship between women's food insecurity, health and geographical place may be useful for exploring the nature, trends and pattern of women's food insecurity within a variety of healthcare settings and various geographical places. The findings of this study imply that there is a need to find ways to promote women's access to local sources of healthy food and to enhance community capacity to address local food insecurity, which might, in turn, inform changes to current practices and policies pertaining to food insecurity more widely. For instance, in order to increase food allowances for Northern residents, the government may need to subsidize food being imported to Northern areas, and food banks could change their practices to offer healthier types of food (e.g., more protein and fresh fruit and vegetables).

Thus, the findings of this study may call for some policy changes to theorizing the geographical and residency effects on women's food-related issues. These changes may inform some modifications to the current practices and policies pertaining to food insecurity such as those surrounding social service agencies.

Lastly, it should be mentioned that the study participants were from diverse cultural groups (Anglophone, Francophone and Aboriginal) that reflect the dominant cultures in Northern and Southern Ontario, which may limit the transferability of the findings. Therefore, further research is required to determine whether such results would differ with different geographical contexts and populations such as those living in urban, rural or remote settings.

Implications

It is hoped that this study's findings can be used to inform initiatives that target women's health in two different geographical contexts, promote knowledge translation with policy makers and stakeholders, and set future guidelines to mitigate food insecurity that are better adapted to target communities. The findings of this study may offer some direction regarding how policies pertaining to food and health can be improved, and could provide a basis upon which food banks, shelters, policy makers, advocates, and the community as a whole can build to strengthen current services and policies, thereby potentially enhancing health outcomes for poor and/or homeless women. It is worth noting that this geographical analysis of women's food insecurity in Northern and Southern Ontario may also aid in deepening our understanding of women's food insecurity experiences more generally. Moreover, it may potentially advance our knowledge on how we can mitigate this phenomenon by adopting innovative, coherent, economic and community-

based interventions such as subsidized food programs for Northern Ontario communities and agriculture-based initiatives to combat women's food insecurity in Southern Ontario communities. These interventions will need to involve multiple stakeholders at the community, local, regional, and national level. Further, policy makers need to be cognizant of the role of residential locations and geography in order to address and accommodate the experience of women's food insecurity and their health in Northern and Southern Ontario.

Conclusion

This study revealed that food insecurity is a pressing issue that is prevalent among poor and/or women residing in Northern and Southern Ontario communities in Canada. These findings are congruent with previous research findings on health inequities experienced by women in different communities in Canada. Indeed, it is clear that both Northern and Southern Ontario contexts and residency matter in relation to women's food insecurity and health, and we would argue that any similarities or differences in women's food insecurity experiences depend on the complex interactions between gender and a particular place or context. Therefore, the provision of social and health services that are aimed at reducing and ultimately preventing women's food insecurity need to be tailored to geographical as well as other contexts. It is clear that further research is necessary to elucidate the complexities of women's food insecurity and their consequent health in different geographical contexts.

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Chapter 5

5. Paper 2: Quotidian Practices by Women Facing Food Insecurity in Northeastern and Southwestern Ontario

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Abstract: There has been considerable growth in research on food insecurity as the pervasiveness of hunger and food poverty has been increasingly recognized in recent years. The food management practices utilized by poor and/or homeless women are of great interest. However, there is a gap in knowledge as few studies have assessed food-insecure women's coping strategies as essential indicators of their capabilities for dealing with food insecurity in different geographic contexts. The utilization of specific food management strategies may assist women to mitigate their experiences of food insecurity, to survive, and to show resistance and resilience. The current study addresses this gap in knowledge from an intersectional lens. A purposive sampling technique was utilized to recruit 20 women from different agency premises and sites in a Northeastern and a Southwestern city in Ontario. Individual semi-structured interviews were conducted and thematically analyzed. The findings revealed that various practices are used by women in food insecure households in both Southwestern and Northeastern Ontario, but they are still hardly able to make ends meet. The findings of the current study have implications for the development of locally informed, vulnerability-based best practice guidelines that are geographically linked, and that foster resistance and resilience to mitigate women's food insecurity in different geographical contexts.

Keywords: Women's Food Insecurity, Food-stretching, Food-skipping

Women's food insecurity is a stubborn and substantial problem that continues to challenge scholars, policymakers and decision-makers. The pervasiveness of hunger and food poverty in Canada is concerning as it is an affluent country. However, it has also been reported that the number of people experiencing food insecurity has been increasing worldwide (FAO, 2017). This trend combined with the greater number of women heading single-parent families reflects women's vulnerability to food insecurity. This situation calls for special consideration because food insecurity may impact not only on women's health and behaviors, but also the wellbeing of their dependents and communities. Geography and place have been recognized as significant indicators for understanding household food insecurity, mitigating strategies, and health and well-being (Health Canada, 2012; Hofmann & Dittrich, 2012; Hoisington, Butkus, Garrett, & Beerman, 2001; Larson & Moseley, 2012; Zenk et al., 2011).

Family relations, sociopolitical structures, and shared experiences within a specific place emerge from the intersection between person-place interaction as well as social relations within specific areas which may affect the resources that can promote or hinder the health and well-being of the residents in that area (Årestedt et al., 2016). Some sociopolitical and structural features of communities in Northeastern and Southwestern Ontario have posed special challenges. Northeastern Ontario has a harsher climate that can impede access to food services, especially during the winter. Other challenges may include differential access to health and social services and the unavailability of certain medical and social services, particularly in Northeastern Ontario. The latter challenge exists because of a shortage of physicians, isolation, poverty, and inadequate community services and food banks, as well as challenging weather conditions in Northern Ontario compared to Southern Ontario (Shaikh & Kauppi, 2010). It is possible that women in Northeastern and Southwestern Ontario utilize different food management strategies. This study explores the practices used by women in two locations.

While there is an emerging body of research on food insecurity and the different food management practices used by those facing this situation (Adebayo and Abegunrin 2013; Agbola 2008; Beaumier and Ford 2010; Broz 2014; Mazzeo 2011; Norhasmah et al. 2010; Weldegiorgis and Jayamohan 2013; Arabindoo 2016; Darko, Eggett, and Richards 2013; DiSantis et al. 2013; Douglas et al. 2015; Gregory and Coleman-Jensen 2013; Harvey 2016; Jarrett, Sensoy Bahar, and Odoms-Young 2014; Johansson et al. 2013; Nielsen, Lund, and Holm 2015; Page-Reeves 2014; Rose 2014), to our knowledge there is little research on women's practices when they face food insecurity in different geographical contexts in Canada. An exploration of women's food insecurity and their food management practices through an intersectional analysis may help gain a better understanding of issues related to food insecurity in different regions of Ontario. Such information can potentially be used to facilitate policy change. Furthermore, the application of an intersectional analysis may offer new insights into diverse food management practices employed by poor and/or homeless women to confront food insecurity in the Northeastern and Southwestern Ontario contexts. Therefore, the intent of the current study is to explore the quotidian food management practices employed by women in households facing food insecurity in Northeastern and Southwestern Ontario. This study aims to answer the following questions from an intersectional perspective: first, what are the practices that food-insecure women have adopted in dealing with food insecurity in Northeastern and Southwestern Ontario and the impacts of these practices on women's health? Second, how have the intersections of gender, geography, economic conditions and homelessness shaped food insecure women's food management practices in Northeastern and Southwestern Ontario?

Literature Review and Theoretical Framework

Women's food insecurity is growing in Ontario. Tarasuk, Mitchell, and Dachner (2016) report that the number of food-insecure households in Ontario grew to 594,900 in 2014. They also state that households headed by women are the group most vulnerable to food insecurity, representing 33.5% of food-insecure families in the province. Health Canada (2012) defines household food insecurity as occurring in a household "when one or more members do not have access to the variety or quantity of food that they need due to lack of money" (p. iv). In the current study, the model of coping developed by Lazarus and Folkman (1984) is adopted to define the food management tactics that are associated with women's food insecurity. The model defines various pathways and practices that are utilized by women to transform a particular threat or stressful experience.

While food management practices can be helpful, it is also of concern that women may resort to limiting their food intake as a way of dealing with limited access to food. Scholars have shown that women who face food insecurity often adopt a diverse range of creative tactics to mitigate their experiences of this stressful situation. Women make difficult decisions about how to feed their families or dependent children (Hammelman 2016; Arabindoo 2016; Douglas et al. 2015; Harvey 2016; Nielsen, Lund, and Holm 2015; Page-Reeves et al. 2014). The most common strategies used by women include buying less-expensive food, relying on starchy cheap food, rationing food, limiting portion sizes, reducing the number of meal times, skipping meals, using savings to buy food, utilizing community services, getting money from friends and relatives, and selling sex or durable goods to purchase food (Gupta et al. 2015; Arabindoo 2016; Douglas et al. 2015; Harvey 2016; Nielsen, Lund, and Holm 2015; Page-Reeves et al. 2014; Rose 2014).

Food stretching may be viewed as a strategically-constructive and creative tactic. This and other practices that women may utilize are part of a selfless fight for survival adopted by food insecure women with limited resources and a lack of political power. Knowledge about these practices may mitigate the impact of food insecurity and potentially offer solutions for their family's survival when faced with circumstances of food insecurity.

Stretching the food budget, using community resources, using less-expensive food substitutes (e.g. frozen fruit and canned food) and buying food in bulk are examples of problem-focused coping strategies. Skipping meals, rationing food, limiting portion size, reducing the number of meal times and self-sacrificing strategies such as making sure one's children are fed first, as well as engaging in unhealthy and risky practices for food, are examples of coping that may be problematic if they impact negatively on health. Page-Reeves et al. (2014) state that women adopt various strategies to overcome food insecurity, such as mobilizing social capital, implementing women's kitchen and cooking strategies, practicing efficient and smart shopping, and expanding their food budget through the use of public programs that offer meals for free or at a reduced cost. However, women who use food banks often feel stigmatized and are

concerned that they have little choice about what food they receive and what their families eat (Dickinson 2014). Another common practice women adopt to confront food insecurity involves spending considerable time and effort to prepare cheap, nutritious food, for example by traveling long distances for grocery shopping in order to buy food at discounted prices (Adebayo and Abegunrin 2013; Chang, Chatterjee, and Kim 2014; Dickinson 2014; Hunnes 2013).

By examining the strategies and practices women use to deal with food insecurity, we can identify the challenges and barriers that they encounter when trying to provide healthy food for their families. Such an examination may expose the structural issues that contribute to food security inequalities and thereby help local, provincial and federal governments develop and implement policies to meet the needs of women facing food insecurity. Page-Reeves et al. (2014) suggest that an exploration of women's coping strategies would not only demonstrate women's resilience but also reveal the forms of women's resistance to the structural relations that lead to poverty and health inequities. Dickinson (2014) argues that because some readily available food sources are tied to and disrupted by welfare reform policies, scholars and advocates must give more consideration to poor women's food management practices in the wake of national welfare reform.

One way to gain a fuller understanding of the nature and the structural dynamics of food management practices is to explore women's experiences of food insecurity in a specific geographic context (Page-Reeves et al. 2014). The present study adopts this approach by investigating the phenomenon in the contexts of Southwestern and Northeastern Ontario, and by seeking to explore the effective interventions being used by women experiencing food insecurity as local phenomena. In addition to climate, these regions of Ontario differ in terms of the linguistic and cultural characteristics of the population. Northeastern Ontario has three main groups—Anglophones, Francophones and Indigenous people—while Southwestern Ontario has more diversity due to the greater number of new immigrants from the global south.

Despite the increased interest in women's food management practices, few studies have been conducted to explore and compare food management practices and tactics among women facing food insecurity in Northeastern and Southwestern Ontario. The current study deployed intersectionality as a theoretical framework to analyze food-stretching and food-skipping as ways in which women with low socioeconomic status deal with food insecurity. Intersectionality clarifies the manner in which elements of identity are interdependent and interconnected. For instance, the experience of being a woman, on the one hand, cannot be separated from that of being poor and/or homeless or food insecure on the other; rather her experience combines elements of both womanhood and poverty at the same time. In this example her identity as a woman is moulded and shaped by her identity as a poor and/or homeless person, and vice versa since the elements of identity (womanhood, poverty, homelessness and food insecurity) are not lived or experienced separately. Indeed, the core aim of intersectionality is to explore the interaction between different aspects of identity; different interconnections can lead to different lived experiences of individuals compared to others who might share some of the same elements. The intersection between different aspects of a woman's identity results in a unique experience of her gender which may differ from that of others. Intersectionality posits that social groups, such as women and poor and/or homeless people, are not homogeneous. For instance, the discrimination and inequality that are experienced by women in different geographical contexts may be due to the particular intersection of different elements of identity. In general, the assumptions of intersectionality theory are compatible with the exploration of some of the women's strategies to confront food insecurity which can be viewed in terms of their intellectual and political struggles, and their commitment to undermining oppressive gender-based power relations. Therefore, women's social status, various other social identities, women's food insecurity status, how women negotiate their agency across structures, and the type of food management practices adopted to face food insecurity were examined as potential influences on the need for empowerment. Thus, intersectionality provides an appropriate lens through which to examine the issue of women's food insecurity, their daily struggles and their food management strategies, particularly within an exploration of the geographies of place of residence.

In stressing the significant contribution of intersectionality as an approach for exploring women's food-stretching and food-skipping strategies as means to overcome food insecurity, Hofmann and Dittrich (2012) argue that it is essential to regard risk-mitigating mechanisms as embedded in social, economic and political structures. Their study demonstrates the potential of an intersectionality framework to help understand the relationships between marginalized women's capacity to deal with stressful circumstances, such as food insecurity, and their experiences of

other factors pertaining to vulnerability that are embedded in different socioeconomic and political structures. Hofmann and Dittrich (2012) concluded that when finding themselves in harmful situations, individual attitudes may affect the individual judgment process as well as the assessment of risk. In turn, such circumstances create a subjective perception of vulnerability which impacts on responses to the circumstances.

This view underscores the argument put forward here regarding food insecure women's practices. These practices are voluntary and reflect the willingness of the individual to take certain risks with their own health as these practices may be perceived by vulnerable individuals as bearable. Thus, to further explicate women's food-conservation strategies in the face of food insecurity in different geographic contexts, it is helpful to conduct an intersectional analysis to explore various aspects of vulnerability among marginalized women (Ceballo, Graham, and Hart 2015; Colombo and Rebughini 2015; Mora-Rios, Ortega-Ortega, and Natera 2016; Weiss et al. 2016). The framework can help to fill some of the gaps in our understanding of the nature of women's food-stretching and food-skipping practices. The analysis can shed light upon the ways in which women deal with food insecurity within the current context of social policies that emphasize austerity. In addition, the intersectionality framework highlights the importance of examining food insecure women's practices from a perspective that considers interlocking oppressions. In another word, women's food management practices constituted by multiple, interrelated categories of oppression that are linked to the social practices of individuals (Winker and Degele 2011). Through food-stretching and food-skipping, women construct their identities in order to deal with their food insecurity (Winker and Degele 2011). Therefore, it is crucial to look at the interrelationships, connections and emphases of different dimensions of inequality, food insecurity, and food management practices within different geographic contexts. An exploration of food management strategies in the contexts of Northeastern and Southwestern Ontario may shed light on the feasibility of applying the intersectionality framework. This study can describe and elaborate upon these practices and explore how they are integrated and implemented. Therefore, the current study may inform the development of vulnerability or marginality-based policy changes or modifications for the sake of women's empowerment.

Method

Sampling, Recruitment Procedure and Data Collection

This study is based on a sample of 20 poor and/or homeless women who were residing in the City of Greater Sudbury in Northeastern Ontario (n=10) and in the city of London in Southwestern Ontario (n=10) and who had experienced food insecurity in the previous year. The setting consisted of agency premises and sites in both Sudbury and London Ontario where services were provided to homeless persons and those at risk of homelessness. These areas show an increased incidence of homelessness and food insecurity, yet only a few studies have addressed these problems in these areas (Forchuk, Reiss, Mitchell, Ewen, & Meier, 2015; Kauppi, Pallard, & Lemieux, 2012). Purposive and snowball sampling techniques were utilized to recruit women for the study. Ten interviews, conducted in 2015, were retrieved from the Poverty, Homelessness and Migration (PHM) project in Sudbury to represent women's lived experiences of food insecurity and homelessness from the Northeastern Ontario perspective, while 10 interviews were conducted in 2016 by the lead researcher in London Ontario for the Southwestern perspective. Interviewers in both locations were trained by the director of PHM. Supervision and training by the same supervisor helped to ensure consistency in sampling and interviewing. Semi-structured individual interviews were conducted with women; the interviews lasted between 45–90 minutes. The participants were considered suitable for interview if they (i) were part of a married couple, a common-law couple, a lone-parent with a child/children or grandparent/caregiver with custody of a child/children; (ii) had experienced an episode of homelessness or near-homeless and food insecurity in the last year; (iii) were able to recall and articulate conscious experiences of food insecurity and homelessness in the English language; and (iv) accessed shelters or meal programs in the last year. Data collection began after obtaining ethics approval from Laurentian University. The selected participants were interviewed at community service agencies in a safe place (i.e., a private room inside the agency). Written consent was obtained from each participant. In-depth interviews were conducted using the same interview questions and guide to interviewing women in both Sudbury and London Ontario. The interviews were audio-recorded and transcribed verbatim. The demographic profile of the participants is provided in Table 1.1.

Table 5.1: Demographic Profile of the Participants

<i>Characteristics</i>	<i>Category</i>	<i>Northeastern (n=10)</i>	<i>Southwestern (n=10)</i>
<i>Age</i>	30-40	4	3
	41-50	4	4
	51-60	2	3
<i>Education</i>	Primary	5	4
	Secondary	5	4
	Post-secondary	0	2
<i>Caregiver/marital status</i>	Single parent	10	8
	Common law	0	2
<i>Ethnicity</i>	Indigenous	5	3
	Francophone	3	0
	Anglophone	2	5
	Others	0	2
<i>Number of dependent</i>	1-2	7	5
	3-4	3	5
<i>Skipping meals</i>		9	5
<i>Support from family/friends</i>		3	9
<i>Income sources*</i>		OW, ODSP, CTB	OW, ODSP, CTB, Pension

*Ontario Works (OW), Ontario Disability Support Program (ODSP), Child Tax Benefits (CTB)

Analysis

Guided by an intersectional framework, the researcher identified and labeled the dominant and relevant concepts in the transcripts, focusing on food-stretching and food-skipping and their sub-themes. The researcher paid particular attention to the intersections emerging from the data in order to draw out a rich and in-depth description of women's narratives of food insecurity and their quotidian food management practices. NVIVO 11 software was used for the management and analysis of the qualitative data and a pseudonym was assigned to each participant to ensure confidentiality. The lead researcher interpreted the phenomenon of interest within and across participant groups by labeling the predominant codes, trends, patterns and themes in the data, related to the women's experiences of food insecurity. For each code, the similarities and differences in the women's experiences were explored within and across these two groups. It is worth emphasizing that the researcher attended to and coded differences and similarities in interactions and intersections within the emerging categories from the Northeastern and Southwestern Ontario women's narratives. In order to implement an intersectional lens in analyzing data, the lead author read all transcripts of women's narratives from two distinct perspectives. The researcher considered first the issue of place of residency of the participant(s) (i.e., in Northeastern or Southwestern Ontario) and how it informed their narratives and descriptions of food-related issues. Then, when all the texts have been considered carefully from this perspective, the

researcher read the transcripts again, asking of the data, how place of residency interacts/intersects with other characteristics (gender, ethnicity, poverty, homelessness, number of children, income and unemployment etc.) to inform what the participants were describing.

Major Findings

The data analysis shows that similar food-stretching and food-skipping practices were adopted by women in food-insecure households in both Northeastern and Southwestern Ontario. These practices include relying on emergency food supplies, such as food banks, soup kitchens, and other community resources and services, stretching the food budget, buying food in bulk and preserving it, rationing food and skipping meals, eating opportunistically, borrowing money from friends and relatives, and engaging in risky and unhealthy practices to get food. The key findings regarding the main food-stretching and food-skipping practices of women dealing with food insecurity are described below.

Food-stretching

The women's capacity to stretch food by navigating the available resources in both regions of the province is apparent. Furthermore, their capacity to stretch and skip food is closely tied to their physical, psychological, and social identities, as well as the interlocking oppressions, the social ecologies and the geographical context in which they are situated. The data analysis showed the women's desire for empowerment, change and resistance, as well as the need for meaningful resources to overcome food insecurity. The complex meanings given to food-stretching, as illustrated in the women's narratives, attests to the essential intersections across women's food insecurity in Northeastern and Southwestern Ontario. For example, Briane and Chyrle, from Northeastern Ontario stated that the imperative of taking responsibility for healthy eating underpins their food-stretching, we can consider this practice in relation to many other challenges that they face, such as paying the rent and dealing with rising food prices. Similarly, Lulu and Jane, from Southwestern Ontario, stated that they employ food-stretching in order to fulfill children's needs and to maintain their homes by paying their monthly rent and bills. Indeed, women's narratives in both regions explicitly show that food-stretching practices are adopted to eliminate and combat the food- and non-food-related barriers created by their community's social and political structures.

Relying on Emergency Food Supplies and Community Resources

The women in both locations (north and south) stated that their communities have special resources, programs and services that could be used to combat food insecurity. In fact, a majority of the participants in both regions said that using community resources was their first approach to stretching their food and improving their diet in the face of food insecurity. Some of these resources included food banks, soup kitchens, religious-based services, and the Salvation Army. Hassana, Rusty and Spring, from Southwestern Ontario, stated that relying on community resources is helpful but not sufficient, and there is a persistent need for more meaningful resources (e.g., social housing, increased income, women-focused services). On the other hand, Candy, Briane and Mary, from Northeastern Ontario, stated that insufficient access to services, the low quality and quantity of food that they received, climate challenges, and the lack of available transportation were some of the greatest challenges for women. Candy and Hassan elaborated on these issues:

I will go try different food banks. I'm not scared to try it, I go to the food bank, I go to the church soup kitchen, I go to these different places that I need. Yeah, it is usually first thing right after two weeks of my payment. It is my first choice to have food when my money [is] barely gone. I go all over, so, I find some food somewhere. (Candy, Northeastern Ontario)

There's places down the street called the soup kitchen and food banks, you hear about that? I go there and put my name on a book because I don't have food or money and they will give me food. I go because I have to, like I said they do what they can to help. I don't think it's very good, but if I didn't have them I wouldn't be eating for the last two weeks of the month. (Hassana, Southwestern Ontario).

Thus, women from both regions were thankful for the programs that supported their food needs, and they considered them assets in dealing with food insecurity. In addition, women from both Northeastern and Southwestern Ontario acknowledged and appreciated the contribution of community resources towards stretching their food and budget but considered these resources insufficient to address their struggles.

Stretching the Food Budget

Women regularly stretch, expand and support their food budgets through the use of free and reduced-cost meals. Some women in both regions reported that smart or planned shopping, eating low-cost foods such as frozen fruit or canned food, and buying food in bulk and preserving it were some of the techniques they used to stretch their food budget. These shopping and/or food management practices involved spending a lot of time and effort on shopping for and preparing healthy meals. For example, women spent time traveling to cheaper grocery stores, and collecting food flyers to take advantage of sales and discounts. Jane and Candy each described the tricks they used to stretch their food budgets:

I have to split my check in half for rent and food or tried to, but [it's] usually all gone by the second week of the month. I will go to food banks and to eat sometimes at [a community agency] because there is free lunch or coupons in the mail for free food. (Jane, Southwestern Ontario)

It's hard to get food lately. If my money doesn't last me the rest of the month, where am I supposed to go next? I cook it all up one day, and that's a two-day thing, and I then I could go two days later, eat the same thing and that won't bother me at all. I don't know. That's the way it goes. (Candy, Northeastern Ontario)

A majority of the women in both regions of the province expressed the view that stretching their food budget is a strategy that demonstrates their resourcefulness. It is an extraordinary tactic that allows them to survive within and resist various forms of oppression. It is worth noting that women in Northeastern Ontario constantly addressed the issue of access to food including the geographically related challenges of travelling or walking to cheaper grocery stores specially during the harsh winter. On the other hand, women in Southwestern Ontario did not report these climate-related challenges.

Borrowing Food and Money from Others

Another strategy women used to stretch their food resources and to deal with food insecurity was borrowing money from friends or relatives. The women described asking for help from friends and relatives as a backup plan when they were faced with economic hardship. The majority of the participants in both regions stated that friends and family members supported them by lending them money or giving them food. This reliance on their social networks plays a significant role in the women's battle against food insecurity. The practice is explained by Canou and Jane:

I went hungry for a lot of times so I went over to my friend's place every time it happened, asked if I could borrow a little bit of this, and a little bit of that, just until payday would come along. I also borrowed a little bit of money sometimes, just like 20 bucks or whatever, so I could buy something for the kids like bread for toast. So we had to borrow some money or food off friends. (Canou, Northeastern Ontario)

I borrowed money from my mom or friends or I'll go to the food bank first, but they are not, like I said, all that healthy. (Jane, Southwestern Ontario)

The strategy of borrowing food or money from others is of interest in terms of how the women's experiences differed between Northeastern Ontario and Southwestern Ontario. Nine out of ten women living in Southwestern Ontario mentioned receiving support from family and friends, while only three women from Northeastern Ontario stated that they borrow money from their families or friends to combat hunger and food insecurity. However, it is difficult to determine whether all the women in both regions have comparable access to services, social ties and connections, which is a limitation when interpreting this finding.

Engaging in Risky and Unhealthy Practices to Get Food

The women explained that, despite their efforts to meet their food needs, there were times when they engaged in risky methods for securing food. For example, Sophie, Sam, Rusty and Hassan, from Southwestern Ontario, reported searching through dumpsters for food that grocery stores had thrown out. They explained that they were occasionally able to find some “good” items in the garbage, such as entire packages that had been discarded because they were just past their expiration dates. They also stated that some fruits and vegetables, such as carrots, bananas, cabbages, potatoes, celery and apples, had been discarded because they were beginning to rot. Hassan described the experience:

I didn't have any food hardly. I just ate what I could, and it was all garbage food. One day I found a submarine, and it was kinda sticky. I just took the stinking part out, the lettuce, and I just ate it. I was hungry. And then I looked the bun over and ripped a couple pieces off and I ate it. Because I don't have much, I don't like wasting. (Hassan, Southwestern Ontario)

Even though some women gathered food from dumpsters at night, in order to avoid the stigma of being seen eating from the garbage, the women presented “dumpster diving” as a useful strategy they used to meet the needs of their families while conserving money. On the other hand, Karen, from Northeastern Ontario, and Jane, from Southwestern Ontario, resorted to more problematic methods to get food or money to buy food such as trading sex for food or stealing from stores. Karen and Jane described some of these issues:

I have that stuck in my head, I was kind of in and out [of awareness] when he was doing what he was doing. Because I didn't want to, it's just I was trying to get some money for food but he treated me like I was a rag doll, like back and forth kind of thing. It was very hard you know—it's really stolen flesh [sex work]. But sometimes it's hard, like it's really pinching. It's like at the edge. (Karen, Northeastern Ontario)

I started dating somebody because he had a place and he gave me food and so I was in an unhealthy relationship, it was abusive again because it was a place to stay, a food to eat like that, you know but it was hard and hurting. (Jane, Southwestern Ontario)

Indeed, the majority of women in both regions touched upon the hardship and the social stigma related to some of their unappealing practices to maintain food such as stealing, sex work and dumpster diving. Most women in both regions of the province agreed that engaging in risky practices to deal with food deprivation, such as selling sex, is not a bad decision; they perceive these circumstances and practices as part of the effort to mitigate risk by replacing the certain harm of starvation and food deprivation with the possible harm of sex work or stealing. They also asserted that, while they were faced with difficult decisions about how to get money, the labelling of such strategies as unhealthy or unacceptable without consideration given to how the alternative is even less healthy (i.e., going hungry), is a part of what makes the experience of food insecurity more harmful and problematic.

The analysis showed that more women from Northeastern Ontario engaged in unhealthy practices to maintain a food supply for themselves and for their families than those in Southwestern Ontario. Particularly during wintertime, the cold and blustery weather-related issues, the challenges with availability of transportation and the difficulty of walking to food services were barriers that were most often encountered by the women residing in Northeastern Ontario.

Skiping Meals and Rationing Food

One of the key strategies that women in both regions employ to cope with food insecurity is to ration food and skip meals to save food for their families. Some women use the strategy of eating simple meals, such as toast and butter, or replacing food with water, tea or coffee. All of the women from both regions reported being aware of the health risks of eating only one meal a day or every other day. Some women from both regions of the province explained that they had been forced to ration their food and meals to feed their hungry families, especially during weekends or toward the end of the month, when services were unavailable. Furthermore, a majority of the women stated that they eat

opportunistically when food is available, for example by eating what their children leave on their plates, or by preparing to skip a meal later by eating two portions of food in one sitting or splitting a meal into two portions to save one for later. Susan and Karen described skipping meals or forgoing food as something they regularly did to cope with food insecurity:

I skip meals often and I ration as well. To make my burger last, I cut it into two or three, so I can make it last, I will have spaghetti this night, I will have a couple of burgers this night. So yeah you kind of mix it up and all that and make it last. (Susan, Northeastern Ontario)

I do skip meals, I eat one meal or sometimes I don't eat at all. Like I've gone three days without eat, just drinking water and coffee. That's because I need to save food for my kids, and I don't feel it, my mind is saying I'm not hungry and I don't feel hungry. (Karen, Northeastern Ontario)

It is worth noting that most women residing in Northeastern Ontario were single parents, Indigenous, and older than the Southwestern Ontario participants. These women reported multiple prior experiences of homelessness, having at least two children and relying primarily on Ontario works and child tax benefits compared to those in Southwestern Ontario. These women reported frequent racism, poverty and skipping meals as well as increased housing rental and food prices, compared to those in Southwestern Ontario. Moreover, women in Northeastern Ontario reiterated that they continually find themselves disadvantaged by the specific constraints imposed by their place of residency; The geographic and socio-economic contexts of Northern Ontario excluded women from employment and confined them within lower income levels compared to those in Southwestern Ontario. Nine out of ten women from Northeastern Ontario reported skipping meals, compared to five out of ten women from Southwestern Ontario. For instance, Karen, Candy and Carrie, from Northeastern Ontario, stated that they found it easier to skip meals than to try to find food during wintertime because they struggled to walk in cold weather, and it was hard to find transportation to community services. This finding indicates that there is a vital need for geographically-specific policies and regulations to address women's food insecurity and their food management practices.

Reflections and Discussion

This study, which was guided by intersectionality theory, provided an opportunity to deepen our understanding of the creative and complex nature of the practices adopted by women in Northeastern and Southwestern Ontario to combat food insecurity. The findings of this study show that food-stretching and food-skipping, as quotidian practices undertaken by women to overcome food insecurity, are a result of various contextual factors and interactions on multiple axes of oppression. These interactions cross-cut each other and include multiple axes of inequality, race-class, gender, poverty, homelessness, geography and food insecurity. Moreover, understanding issues for food insecure women assists in understanding how the various dimensions of gendered social structures, poverty, geography, and homelessness interact to reinforce more complex forms of discrimination. For example, women who suffered only one category of vulnerability (e.g., poverty without the impact of racialization) experienced fewer challenges related to food insecurity compared with women who faced multiple sources of vulnerability (e.g. poverty, racialization, unemployment). This view has the potential to influence policies leading to change and helping to ensure that existing local efforts and initiatives do not inadvertently further disadvantage or harm any individuals and families.

Furthermore, the study findings reveal that the women deploy various practices or strategies as a buffer against hunger in their daily battle with food insecurity. This study contributes to the conceptualization of women's experiences of food insecurity and their food management practices, such as food-stretching and food-skipping, with an emphasis on their capacity to adapt to the emotional and physiological challenges within the Southwestern and Northeastern Ontario contexts. While the women in this study relied on food-stretching and food-skipping as effective ways to deal with food insecurity, they also reported using risky, unhealthy and challenging tactics, such as stealing, eating from garbage, and exchanging sex for food. Thus, further discussion is crucial to broaden our understanding of women's food insecurity and food management practices within Southwestern and Northeastern Ontario.

Furthermore, additional research is required to understand whether the findings reported here with respect to food management practices, differ within other geographical contexts, demographic samples and in urban versus rural settings. The findings of this study may provide an impetus for developing vulnerability-based and gender-specific

programs and policies aimed at tackling women's food insecurity in Southwestern and Northeastern Ontario. This argument echoes the assumptions of a strengths-based approach which assumes that all service users such as poor and/or homeless women have their own strategies and strengths, despite their geographical residency and their marginalization status. Women have the potential to decide what is best for them and their dependents and to propose measures to overcome food insecurity and homelessness; this is despite difficult circumstances that are drawn from personal experiences and based on available community resources. Food-insecure women can be empowered and supported to discover their potential to enhance their personal strengths and coping ability to deal with food and housing crises and to remove themselves from marginalization. This implies that service providers should not restrict themselves to narrow sets of rules, regulations or practices in dealing with women's food insecurity and homelessness. Rather, as the findings of this study suggest, what is needed is a call for the launch of local and women/gender-specific loans and grants programs, with detailed directions on how to implement, monitor, and sustain such programs in response to women's food and housing crises.

These women's daily practices to confront food insecurity provide an argument for supporting the promotion and development of innovative, geographically-cohesive initiatives to reduce the prevalence of food insecurity among women. For instance, policymakers, stakeholders, and community organizations should develop guidelines that assist in mapping the location and the distribution of community food retail outlets in relation to residential areas and should also undertake frequent monitoring of local food availability, quality, and prices. Moreover, policies that support food subsidies and incentives to improve women's food security in different geographical contexts, such as subsidizing food transport to rural and remote areas, should be advocated. The narrative data may also help us to better understand the complexity of relationships among issues related to food, gender, power, and practices or strategies designed to address food insecurity. Furthermore, the women's views reported herein clarify the different types of skills and resourcefulness that Southwestern and Northeastern Ontario women have developed to overcome barriers to food accessibility and availability, and to ensure the well-being of their dependents.

It could be argued that this study has provided information that, if addressed through appropriate policy change, can give women increased capacity to take more control over their lives. Change is needed to buffer women and their families from the negative consequences of food insecurity. However, in addition, women can identify their own creative strategies to combat food insecurity—however, unsafe or unhealthy practices such as skipping food, stealing or dumpster diving are clearly undesirable. It is important that food-specific initiatives or programs and policy reforms are grounded in multi-faceted efforts and partnerships with decision-makers and stakeholders at various community levels and that these efforts recognize the contextual and complex nature of women's food insecurity and the food management practices they adopt.

Study Limitations and Challenges

A qualitative study exploring the quotidian practices adopted by women facing food insecurity, poverty, and homelessness in Northeastern and Southwestern Ontario communities by using has some limitations. For instance, the findings may not be generalizable to other communities. While efforts were made to include a broad cross-section of food insecure women in the target communities, no claims can be made that all of the experiences or practices used by women are represented in the data. Therefore, future research should involve a larger, more diverse sample of poor and homeless women as well as participatory action research processes that call for change and social justice. In addition, all participants were interviewed using the English language, so the experiences of unilingual Francophones, and other culturally diverse persons is not reflected in the findings.

Conclusions

This study revealed some of the diverse practices and strategies, employed by women facing food insecurity in Southwestern and Northeastern Ontario, Canada. The study findings showed that women use the available and accessible food resources and system to mitigate the impact of food insecurity on their households. Understanding these food management practices could stimulate discussions of how women's experiences might help develop vulnerability-based, geographically-linked interventions to combat household food insecurity. Interventions could take the form of food subsidies, for food insecure women in geographically challenged conditions. Community resources and services aimed at alleviating and ameliorating women's food insecurity need to be tied and tailored to

different food-related practices in various contexts. Further research is necessary to illustrate the complexities of women's food insecurity, food management strategies, gender, and food justice in different geographical contexts. The food-stretching and food-skipping practices deployed by women in Southwestern and Northeastern Ontario demonstrate that food poverty and hunger are problems within an affluent country; women are struggling to overcome food deprivation, and they are barely able to make ends meet within Canada. The findings clearly show that food insecurity is a serious issue that requires policy modifications and reforms to be implemented strategically, creatively and carefully. Such changes are urgently needed to achieve attainable and feasible practice guidelines to overcome hunger and food scarcity for poor women and families.

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Chapter 6

6. Paper 3: Food Security and the Health Perceptions of Ontario Women

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Abstract: The purposes of this study were to describe the characteristics of food-insecure women residing in Northeastern and Southwestern Ontario and to examine the differences between these women in terms of their perceptions of their general and mental health, worries about running out of food, affordability of balanced meals, and frequency of skipping or cutting meals. Furthermore, the study aims to identify the factors and/or circumstances associated with these women's general and mental health perceptions. We conducted a secondary analysis of quantitative data extracted from the Canadian Community Health Survey (CCHS) for 2014. The CCHS is a large, nationally representative, cross-sectional survey that focuses on health determinants in the Canadian population. The sample for this study consisted of 408 food-insecure women: 210 (51.5%) from Northeastern Ontario and 198 (48.5%) from Southwestern Ontario. A total of 202 (50%) women were between the ages of 30–60 years old, 325 (81%) were white, and 168 (42%) were single or never married. Age, marital status, employment, household size, income, education, food insecurity variables (consumption of fruit and vegetables, frequency of skipped meals, worries about running out of food, and affordability of balanced meals), and health region were analyzed to explore food-insecure women's health perceptions. The comparative analysis showed that there were no differences in health perceptions among food-insecure women residing in Northeastern versus Southwestern Ontario. Furthermore, the correlation analysis showed that there were significant correlations between household size, employment, worries about running out of food, affordability of balanced meals, frequency of cut or skipped meals, and health perceptions of food-insecure women. Overall, the study findings revealed that various factors affect the health perceptions of food-insecure women in Northeastern and Southwestern Ontario. These factors could be tied to the selected communities' geographical location and resource constraints. It is recommended that local and community-specialized support systems and initiatives be established to improve the health perceptions of food-insecure women in Northeastern and Southwestern Ontario.

Keywords: Quantitative Secondary Analysis; Food-Insecure Women; Health Perceptions; Ontario, Canada

While Canada is generally considered food secure, compared to the developed nations of the world, this is not the case among disadvantaged and low-income groups such as poor and/or homeless women. Food Banks Canada (2016) reported that 863,492 Canadians went to food banks in 2016 to obtain groceries. This number represents an increase of 25% over the number of people seeking assistance from food banks in 2013, and the number has not declined over the last five to six years (Desjardins 2014). In Canada, women report consistently higher levels of household food insecurity than do men, due to socioeconomic disadvantage (Matheson and McIntyre 2014, Wakefield, Fredrickson, and Brown 2015, Tarasuk, Mitchell, and Dachner 2014, Tarasuk, Mitchell, and Dachner 2016). The findings from Tarasuk, Mitchell, and Dachner (2016) focusing on the policy options to reduce food insecurity also support this claim.

Food insecurity is a gendered experience, wherein gender inequality both leads to and is a consequence of food insecurity (McKune et al. 2015). There are several reasons why women experience food-related poverty more often than men. They include the role of women in food preparation, their position as primary caregivers, the increasing number of female-headed households worldwide and their poor economic status. Consequently, there is an urgent need to pay special attention to food insecurity and its effects on women's health and well-being.

It is estimated that more than four million Canadians are suffering from food insecurity (Tarasuk, Mitchell, and Dachner 2016). Foodbanks Canada (2016) reported that the use of foodbanks increased by 1.3 percent, on average, but some regions showed “drastic surges” of 17 to 25 percent or more between 2015 and 2016 (p. 6). Following a visit to Canada, the United Nations Special Rapporteur on the right to food reported that over half (59%) of people relying on social assistance experience food insecurity (United Nations General Assembly, 2012). Nearly half of the households affected by food insecurity are headed by women aged from 18 to 65 years old with a reported household income of less than 10,000 Canadian dollars (CAD) per year (Tarasuk, Mitchell, and Dachner 2016). Generally, food security is intertwined with, and determined by, people's local food supply and their capabilities and resources to access and utilize the available food (Browne, Laurence, and Thorpe 2009, Rychetnik et al. 2003).

Literature Review

Although the literature shows that a range of factors contribute to women's food insecurity, a finding from both urban and rural settings in Canada indicates that both the quantity and the quality of food are essential for health and well-being. In turn, poor nutrition due to inadequate and/or poor-quality food intake leads to ill health (Browne,

Laurence, and Thorpe 2009, Rychetnik et al. 2003). This also exacerbates existing health inequities because inadequate and/or poor-quality food intake is more prevalent among people with other barriers to ideal health, such as low social and economic status and environmental disadvantage (Browne, Laurence, and Thorpe 2009, Rychetnik et al. 2003). For instance, poor and/or homeless women report higher rates of food insecurity and poorer health perceptions compared to the general population (Adebayo and Abegunrin 2013, Beaumier and Ford 2010, Dickinson 2014). Browne, Laurence, and Thorpe (2009) argue that food insecurity can lead to chronic diseases such as diabetes mellitus, hypertension and anemia, as well as constant hunger, worry and anxiety due to an insufficient amount of food and a lack of energy. These physical and mental outcomes of food insecurity can worsen the feelings of exclusion and vulnerability among food-insecure, poor and/or homeless women, as well as influencing their capacity to cope.

According to Health Canada (2012), the continuous monitoring of trends and the prevalence of household food insecurity is essential for designing specific policies and programs to improve access to nutrition. It is also important to assess the impact of such interventions among diverse populations. In Ontario, the geographic patterning of women's food insecurity, as well as the health implications and care costs of the affected households, particularly in the north of the province, call for the development of strategies and policies to reduce women's food insecurity (Skinner et al. 2013, Tarasuk, Mitchell, and Dachner 2016).

Considering the issue from a geographical perspective, the Ontario Public Health Association (2014) has demanded that attention be paid to the environmental, social and economic policies that affect the systemic aspects of Canada's food supply. Similarly, Dillabough (2016) argues that identifying the root cause of community food insecurity, and encouraging the development and maintenance of local, municipal and provincial food programs and policies is required to improve food affordability for Northern communities. Senthana, Kristman, and Hogg-Johnson (2015) argue that Northern and Southern Ontario differ in terms of demographics, employment, and availability of local food and health care services. More specifically, Dillabough (2016) argues for more community-specific solutions such as the Nutrition North Canada retailer subsidy program. Similarly, Skinner et al. (2013) assert that long-term solutions for community food insecurity should aim to support access to local resources, as well as to minimize reliance on imported foods. These solutions could reduce food prices, promote women's access to healthy food for themselves and their families, and promote food transportation to the north of the country.

Canadians who live in northern regions of the country face high levels of food insecurity, especially among First Nations, Métis and Inuit populations. Many factors have contributed to food insecurity in northern communities included low income, the high cost of local store-bought foods, and decreased access to traditional foods (Food Banks Canada 2016). On the other hand, in southern Canada, the cost of food is among the lowest in the world, and most Canadians live in southern regions of the country. Therefore, in many communities of northern Ontario where transportation costs are high, the cost of food combined with a lack of job opportunities, and decreasing consumption of traditional foods create a serious and alarming public health emergency (Food banks Canada 2015, 2016).

Generally, food banks remain the dominant response at the community level in Canada due to the inadequacy of relevant public policies to address household food insecurity (Loopstra and Tarasuk 2012). In the same vein, Roncarolo, Bisset, and Potvin (2016) have argued that, in Canada, interventions to confront food insecurity are designed at the community level and can be categorized into two basic strategies: (1) traditional strategies that offer an immediate response to the need for food and (2) alternative strategies that target the improvement of the participants' social cohesion, capabilities and management of their own nutrition.

Despite recognition that there are substantial differences in the general and mental health perceptions of food-insecure women residing in different geographical areas, there is scant research that explores the relationship between geographic location, women's food insecurity, and women's health perceptions. While several studies have compared food-insecurity across different geographies (DiSantis et al. 2013, Hunnes 2013, Larson and Moseley 2012, Mammen, Bauer, and Richards 2009), a careful examination of the literature revealed that there is no published work that examines whether there are differences in the general and mental health perceptions of food-insecure women residing in Northeastern and Southwestern Ontario. In 2018, Tarasuk, Li, Mitchell and Dachner (p. 212) expressed concern that "no information is available on the prevalence of food insecure households at the regional or municipal level, and marginally food insecure households continue to be treated as if they were food secure." Furthermore, few studies discuss the factors or circumstances that may be associated with the general and mental health perceptions of such a population. The current study addresses this gap in knowledge; the purpose of the study is to describe the characteristics of food-insecure women residing in Northeastern Ontario and in Southwestern Ontario. Furthermore, this study examines the factors associated with the perceptions they have about their general and mental health. It addresses the following research questions:

1. What are the profiles of food-insecure women residing in Northeastern and Southwestern Ontario?

2. Are there differences in general and mental health perceptions, worries about running out of food, affordability of balanced meals, and frequency of skipping or cutting meals, between food-insecure women residing in Northeastern and Southwestern Ontario?

3. What are the factors and /or circumstances associated with the general and mental health perceptions among food-insecure women residing in Northeastern and Southwestern Ontario?

Conceptual Framework

Within the food security literature, various frameworks are used to discuss food security. For the purpose of this study, the determinants in the food security framework developed by Rychetnik et al. (2003) were adopted. In that framework, food security is defined as:

The ability of individuals, households and communities to acquire appropriate and nutritious food on a regular and reliable basis and using socially acceptable means. Food security is determined by the food supply in a community, and whether people have adequate resources and skills to acquire and use (access) that food. (Rychetnik et al. 2003, iv)

Conversely, food insecurity can refer to the following circumstances:

Not having sufficient food; experiencing hunger as a result of running out of food and being unable to afford more; eating a poor quality diet as a result of limited food options; anxiety about acquiring food; or having to rely on food relief. (Rychetnik et al. 2003, iv)

In general, the food security framework developed by Rychetnik et al. (2003) outlines two categories of interventions contributing to food security: food supply and access to food. This classification is based on the potential of these interventions to address the determinants of food security (Rychetnik et al. 2003). For example, interventions that target the food supply consider the indicators of a local food supply, such as the locations of food outlets, availability of suitable foods in such outlets, quality and price of available foods, variety and discounting (Rychetnik et al. 2003). In contrast, interventions that target access to food address individual, household or community resources and capacities to acquire and use food (Rychetnik et al. 2003).

Determinants of food access overlap significantly with the social and economic determinants of health, such as employment, income, education, housing and area of residence, and social networks. These determinants are correlated with the location and geography of a particular community and how women, among others, are constrained by sociopolitical, economical, institutional and environmental factors in that community (Gregory and Coleman-Jensen 2013, Kaba 2009, Loopstra and Tarasuk 2013, Rose 2014). These structural constraints are beyond the control of poor and/or homeless women; however, their actions and coping strategies related to food management can affect their general and mental health outcomes and their ability to escape from food insecurity.

Various scholars have argued that in order to improve people's access to food it is crucial to address the various resources, solutions, initiatives and capacities that determine people's capability to obtain, acquire and prepare food (Browne, Laurence, and Thorpe 2009, Rychetnik et al. 2003). Community or government initiatives to improve access to food should include offering financial assistance, improving or subsidizing transportation to grocery stores, and providing and maintaining healthy housing with safe and adequate storage areas and food-preparation facilities (Browne, Laurence, and Thorpe 2009, Chang, Chatterjee, and Kim 2014, Dammann and Smith 2009, Dillabough 2016, Rychetnik et al. 2003). In addition, women can increase their control over food security by developing knowledge and skills around healthy food choices and preparing nutritious meals (Maynard 2016, Page-Reeves 2014, Rychetnik et al. 2003, Stevens 2010). Indeed, proposing and planning sustainable interventions to improve access to food requires an emphasis on creating productive, equitable and sustainable food systems that support the health and wellbeing of food insecure women. Moreover, there is a need to ensure that women can navigate community resources and services (Rychetnik et al. 2003). Policymakers and program-designers must understand that the determinants of food security and access to food differ among different populations within a community. For example, poor and/or homeless women, or those with chronic diseases, mental disorders and/or substance use disorders, may experience food insecurity due to their individual characteristics and socioeconomic disadvantage or chronic physical or mental health problems. Consequently, they, more than other members of the community, are more likely to have an ongoing need for sustainable interventions in the form of food services, food programs or food relief initiatives such as free meal programs (Larson and Moseley 2012, Mammen, Bauer, and Richards 2009, Rose 2014, Rychetnik et al. 2003).

In light of the above, the determinants of access to food described in the food security framework put forward by Rychetnik et al. make it the most appropriate for examining the phenomenon of food insecurity, identifying and extracting relevant variables. Using this framework, the current study undertakes a comparative study of food-insecure women residing in Northeastern and Southwestern Ontario, in terms of their social and economic determinants of

health and their general and mental health perceptions. The following sections discuss the various determinants of access to food and the connections to food security and health perceptions.

Food Insecurity and Employment

Several scholars have highlighted the relationship between employment, having enough income and the risk of food insecurity, as well as how changes in household income and employment might contribute to ameliorating or heightening the level of food insecurity (Loopstra and Tarasuk 2013, Chang, Chatterjee, and Kim 2014, Christaldi and Cuy Castellanos 2014, Dammann and Smith 2009, Dickinson 2014, Johansson et al. 2013, Kaba 2009). It has been estimated that the rate of unemployment among homeless women in Canada exceeds 80% (Poremski, Whitley, and Latimer 2014). Loopstra and Tarasuk (2013) conducted a study to examine the dynamics and effects of employment and income on the severity of food insecurity of low-income families in Toronto and found that gaining full-time employment and earning more income resulted in improved food security for low-income families. Therefore, employment initiatives for poor and/or homeless women could improve their food security status.

Food Insecurity and Income

Women's food security is connected to income; it is an important public health concern in Canada and a key social determinant of health (Tarasuk, Mitchell, and Dachner 2016). Women's food security is essential for healthy families and without sustainable economic access to adequate healthy food, healthy eating cannot be achieved. This situation ultimately increases the risk of experiencing health concerns. From a population health perspective, conducting further data analysis on women's food insecurity can assist in understanding the patterns of women's food security in different areas of Ontario and the concomitant health impacts. This understanding is critical in developing and modifying initiatives policies and programs in different geographical areas, as noted by Tarasuk et al. (2018). Food insecurity and income are potent indicators of women's nutritional inequity in Canada. The associations between women's food insecurity, income and health have been linked to poorer health status and chronic health conditions such as asthma and chronic disease (Tarasuk, Mitchell, and Dachner 2016). In their study examining the role of food prices and food-price volatility, Gregory and Coleman-Jensen (2013) found that people with low incomes living in areas with high food prices experienced greater food insecurity. Further, Tarasuk (2017) suggested that an initiative providing a basic income guarantee (B.I.G.) would be a powerful policy intervention that could reduce household food insecurity among those most vulnerable to food insecurity because of the financial constraints that are connected with inadequate or insecure access to food.

Food Insecurity and Education

Studies in the global south have shown a relationship between access to education and food security (Mutisya et al., 2016; Chowdhury et al., 2016). Chowdhury et al. (2016) conclude that low maternal education and low socioeconomic status are significantly correlated with food insecurity among Bangladeshi families. In Canada, Maynard (2016) conducted a study around food insecurity among post-secondary students at the University of Waterloo with an emphasis on the barriers to food access and healthy eating, including food environment, food literacy, and time. The study findings concluded that students' food insecurity has critical implications for their health and academic performance (Maynard 2016). In fact, campus environment and lifestyle impact students' health because they are low on cash due to their student status, which may be an underlying cause of poor food choices. Therefore, the availability of food banks in post-secondary institutions, acknowledges the hardships of access to food or the availability of healthy food for students.

Food Insecurity, Homelessness and Housing

Food insecurity and poor diet quality are salient issues among homeless individuals who access homelessness services (Crawford et al. 2015). Various studies highlight the positive impact of gaining secure, affordable and healthy housing on homeless people's food insecurity (Chang, Chatterjee, and Kim 2014, Christaldi and Cuy Castellanos 2014, Dammann and Smith 2009, Gregory and Coleman-Jensen 2013, Health Canada 2012, Kaba 2009). Ponce, Lawless, and Rowe (2014) found that the complex interactions between food insecurity and homelessness among women and their dependents may create extraordinary barriers to their engagement with services and their ability to satisfy their hunger. Thus, exploring the co-occurrence of food insecurity and homelessness among poor and/or homeless women could lead to an improvement in gender-specific food and homeless services programs designed to target food-insecure

women. These findings highlight the need for a greater focus on advocacy and policy actions to increase social support and improve the food security and nutrition of homeless individuals.

Food Insecurity and Area of Residence

An individual's access to healthy food is affected by their location and its geographical context (Buck-McFadyen 2015). Recent Canadian and international research indicates that place of residence and geographical location have a substantial effect on food prices (Fiddler 2012, Gregory and Coleman-Jensen 2013, Harvey 2016, Health Canada 2012, Hunnes 2013, Kaba 2009, Larson and Moseley 2012, Maynard 2016, Skinner et al. 2013, Zenk et al. 2011, Holben and Smith 2016). Indeed, food prices are more likely to fluctuate across place of residence and geography than over time. For example, in Canada, local food-related initiatives are adjusted for inflation, but not for geographical fluctuations in cost. Moreover, there is significant variation in the prices of healthy foods across Canada (Health Canada 2012, Holben and Smith 2016, Maynard 2016). Indeed, Dillabough (2016) asserts that the presence of fewer food stores, higher food prices, higher cost of living, and increased travel costs contribute to women's food insecurity in Northern Ontario communities. With limited access to both family physicians and specialists, Northern Ontario is underserved by the health care system (Wenghofer, Timony, and Gauthier 2014). In contrast, more than three-quarters of family physicians and specialists reside and practice within urban centers in Southern Ontario (Government of Canada 2011, Senthana, Kristman, and Hogg-Johnson 2015, Tepper JD 2005, Wenghofer, Timony, and Gauthier 2014). Thus, place of residence and geographical variation across Canada and within Ontario could affect women's access to and ability to pay for healthy food. This could have adverse impacts on their physical and mental health.

Food Insecurity and Social Inclusion

Food insecurity is an ongoing issue among marginalized groups, including poor and/or homeless women, which affects their access to food and their diet quality (Crawford et al. 2015). Ponc and Frisby (2010) argue that service providers should critically investigate what constitutes "inclusion," when working with marginalized women to address their social exclusion and related health issues. Such investigations of marginalized women's understandings of inclusion can help us to understand why inclusion benefits women living in poverty. Furthermore, such an investigation presumes that inclusion is desirable for marginalized women and is achievable through appropriate services such as food and housing initiatives. Also, it is important not to assume that all members of a specific social group share similar experiences, perspectives, and needs. The needs and food insecurity experiences of poor and/or homeless women may vary considerably according to sociodemographic variables such as age, ethnicity, religious views, income, and number of dependents. Consequently, women may have diverse experiences of food insecurity and its intersections with their physical and mental health. An understanding of the interactions among different forms of women's hardships may help to explicate the effects of disadvantages in everyday life. (Grabham et al. 2008).

Food Insecurity and Health

Food security is considered a key determinant of health (Dillabough 2016, Laraia 2013, Smith et al. 2013). Food insecurity and its effects on the health of women and their dependents has been extensively explored by various disciplines, including social work, nursing, and psychology (Laraia 2013, Skinner et al. 2013, Smith et al. 2013, Christaldi and Cuy Castellanos 2014, Ontario Public Health Association 2014). Stevens (2010) conducted an exploratory study on the experiences of food security among young mothers (15–24 years old), their health and the strategies they used to manage food insecurity. The study found that young mothers' food insecurity contributes to negative mental health outcomes such as anxiety and depression due to the stress of food insecurity (Stevens 2010). Moreover, the young mothers perceive that their general health is affected by food choices, as the types of food consumed can contribute to obesity, diabetes, heart disease, and the greater likelihood of early mortality (Stevens 2010). Studies show that women's food insecurity is connected to poor physical, mental and social health outcomes, including various food-related physical and psychological illnesses, such as cardiovascular disease, diabetes, anxiety, depression, suicide, and obesity (Harvey 2016, Laraia 2013, Skinner et al. 2013, Beaumier and Ford 2010). Furthermore, in Canada, poor, homeless and food-insecure women have lower life expectancies than the general population (Beaumier and Ford 2010, Buck-McFadyen 2015, Dachner 2014, Skinner et al. 2013). When women and children have access to adequate and healthy food with minimal food-related concerns, their health perceptions improve due to their decreased level of stress regarding obtaining food (Adebayo and Abegunrin 2013). Therefore, identifying the characteristics of food-insecure women, as well as the stressors that affect the availability and quality of food may inform community-based strategies for improving food security (Beaumier and Ford 2010). Figure 1

shows the conceptual framework used in the current study, which includes the determinants of food security and the impacts on health perceptions.

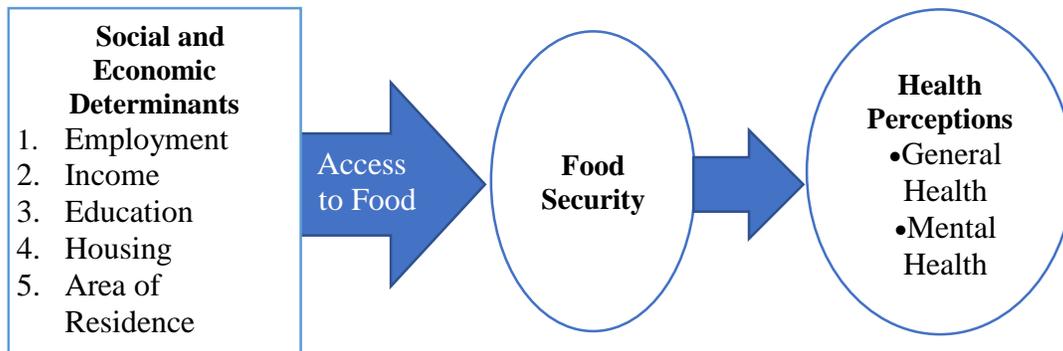


Figure 6.1: Determinants of Access to Food and Food Security

Method

Design

This exploratory study draws on existing population-based survey data, (the Canadian Community Health Survey [CCHS] (2014) to conduct a secondary analysis. The CCHS is a nationally-representative, cross-sectional survey of 65,000 respondents, which collects data on Canadians' health status and their use of healthcare services, along with information about health determinants (Statistics Canada 2014). In 2014 the CCHS had a particular focus on food security-related variables. The results of the CCHS (2014) are accessible from a publicly-available file that consists of national, provincial and local data. This survey was selected because it is the currently available population-based survey that provides information related to the topic of food insecurity and allows for analysis of the existing data, including geographical area. It also provides reliable information about the food and nutrient intakes of respondents and the relationship between diet, food insecurity and a wide range of health correlates at the national and provincial levels.

The database provides estimates of the distribution of usual dietary intake in terms of foods, food groups, eating patterns, nutrients and dietary supplements among a representative sample of Canadians at national and provincial levels. In addition, it shows the prevalence of household food insecurity among various population groups together with health conditions and socioeconomic and demographic characteristics of respondents.

Secondary data analysis is defined as further analysis of a previously collected data set to answer different research questions (Windle 2010). This method allows investigators to access and use large existing data sets to answer new research questions (Dunn et al. 2015). Conducting secondary data analysis has several advantages, including saving time, effort, cost and resources, and minimizing risk to participants (Dunn et al. 2015, Windle 2010). Furthermore, these data sets often involve the use of large sample sizes that intend to oversample minority groups, and they consider participants from varied geographical areas (Aponte 2010, Boo and Froelicher 2013). However, secondary data analysis limits the researcher's ability to deal with insufficient, missing or low-quality data (Dunn et al. 2015). For the purpose of this study, only data from the Northeastern Ontario and Southwestern Ontario Local Health Integration Networks (LIHN) were analyzed. A sub-sample of women respondents who self-reported a moderate to severe status of food insecurity in the year before the survey was selected from Northeastern Ontario (n = 210) and Southwestern Ontario (n = 198) for the analysis.

Data Collection

The CCHS (2014) data examined in this study covered the calendar years of 2013 and 2014, and they were collected directly from survey respondents by Statistics Canada workers. Participation was voluntary and each respondent was interviewed via telephone; the interview took each respondent approximately 45 minutes to complete (Statistics Canada, 2014). The CCHS uses three sampling frames to select the sample of households: an area frame, a list frame

of telephone numbers, and a random digit dialing frame. Within the database, all members of the household are listed, and individuals aged 12 years or over are automatically selected based on age and household composition.

Data extraction and identification of the potential variables

The focus of the extracted data was informed by the purpose of the study and the conceptual model (Figure 1). Access to the CCHS was available through a web-based data extraction system delivered through Laurentian University's data services via a scholars' portal called Ontario Data Documentation, Extraction Service and Infrastructure (ODESI). In general, ODESI contains both microdata and aggregate data; the core data comes from Statistics Canada. With librarian help and through working on Statistics Canada microdata files, a subset of data was identified and downloaded. The data used in this study include the respondents' sociodemographic characteristics, food security-related variables and general and mental health perceptions. The selected data sets were downloaded into the Statistical Package for the Social Sciences (SPSS) and transformed when necessary to facilitate data interpretation. Table 1 shows the variables that were measured as categorical or ordinal variables.

Table 6.1: Selected Variables and Their Defining Features

Selected variable	Defining features
Age	Defined as self-reported number of years when prompted with the question: What is your age? Categorized into three groups: Less than 30 years, 30–60 years, more than 60 years old.
Marital status	Defined as self-reported response when prompted with the question: What is your marital status? Categorized into married, common-law, widowed, separated, divorced, single, never married.
Household size	Defined as self-reported response to the following categories: one person, two persons, three persons, four persons, five or more.
Education level	Highest level of education categorized into four levels: Lower than secondary school, secondary school, post-secondary education, post-secondary certificate.
Employment	Defined as self-reported response when prompted with the question: Are you currently employed or unemployed?
Income	Total yearly household income from all sources (CAD in '000s). Categorized into groups of no income or <20, 20–39, 40–59, 60–79, 80 or more.
Cultural/ racialized group	Self-identified as white or visible minority.
Fruit & vegetable consumption	Less than five or more than five portions daily.
Worries about running out of food	Self-reported responses categorized as often true, sometimes true, never true.
Cannot afford balanced meals	Self-reported responses categorized as often true, sometimes true, never true.
Frequency of cutting and skipping meals	Self-reported responses categorized into almost every month, some months, only 1 or 2 months.
Health region	The Northeastern LHIN and Southwestern LHIN sub-regions were considered. Eight regions in total were identified in Northeastern and Southwestern Ontario. The North East LHIN included Sudbury, Algoma, North Pay and Muskoka, while the South West LHIN included London Ontario, Windsor, St. Thomas and Chatham.
Cut or skipped meals	Defined as self-reported response (i.e., yes or no) when prompted with the question: Do you cut or skip meals?

Self-perceived general health	Defined as self-reported rating of health (i.e., 5-point scale) when prompted with the question: How do you perceive your general health?
Self-perceived mental health	Defined as self-reported rating of perceived mental health (i.e., 5-point scale) when prompted with the question: How do you perceive your mental health?

Data Analysis

Pearson's chi-square statistic was used to test the association between geographical health region and other categorical variables, including education level, employment, household size, household income general and mental health perceptions, worries about running out of food, frequency of skipping meals and affordability of balanced meals. Spearman's rho correlation was used to explore the relationships between general and mental health perceptions and other study variables, including household size, employment, worries about running out of food, frequency of skipping meals and affordability of balanced meals. Non-parametric tests have been used to assess the associations between the categorical and ordinal data (Pallant, 2013). The level of statistical significance was set at $p \leq 0.05$. All statistical analyses were conducted using SPSS version 24.0.

Results

Profile of food-insecure women in Northeastern and Southwestern Ontario

The analysis began with an examination of the profile of food-insecure women residing in Northeastern and Southwestern Ontario. The sample consisted of 408 food-insecure women; 210 (51.5%) of the respondents were residing in Northeastern Ontario and 198 (48.5%) were residing in Southwestern Ontario. Approximately half of Northeastern women reported their age as between 30–60 years old (47%), compared to 45.5% from Southwestern Ontario. A majority of the respondents from Northeastern and Southwestern Ontario identified themselves as white (81% and 80.5%, respectively). In both Northeastern and Southwestern Ontario, a majority of the respondents were single or had never been married. Well over a third of the study participants from Northeastern Ontario (39.7%) and 34.3% of the participants from Southwestern Ontario reported their household size as one person. Only 5.3% of the study participants from Northeastern Ontario and 9.6% from Southwestern Ontario reported their household size as five or more persons. The largest group of participants in Northeastern Ontario reported low income as 40.5% reported that their annual income was zero to less than CAD 20K. A similar proportion in Southwestern Ontario, 41.1%, reported low income.

Regarding educational attainment, a majority of respondents in Northeastern Ontario had low educational attainments as nearly a third (31.2%) had attained less than secondary school or secondary school (19.5%), while a small proportion (3.9%) had post-secondary education or a post-secondary certificate (45.4%). The educational attainment of women from Southwestern Ontario was similar to northern respondents as most had less than secondary school (28.1%) or secondary school (22.4%), while slightly more southern women had post-secondary education (6.1%). About the same proportion as northern women had a post-secondary certificate (43.4%). More than half of the study participants in Southwestern Ontario were unemployed (55.4%), while 48.1% of Northeastern Ontario participants were unemployed.

Roughly 75% of the respondents from Northeastern Ontario reported that their daily consumption of fruit and vegetables was less than five portions compared to 68.6% from Southwestern Ontario. With respect to cut or skipped meals, 54.8% of the study participants in Northeastern Ontario reported that they often cut or skipped meals and 52.5% from Southeastern Ontario. Women residing in Northeastern Ontario reported that they were often worried about running out of food (29.5%), as did 26.8% of Southwestern Ontario women. A quarter (24.2%) of the women from Southwestern Ontario and 21.9% of the women in Northeastern Ontario reported that they often could not afford balanced meals. Southwestern Ontario respondents mostly reported that they perceived their general and mental health as good (74.7% and 77.3%, respectively). Slightly fewer women from Northeastern Ontario saw their general and mental health as good (67.1% and 73.3%, respectively). Table 2 presents an overview of these results.

Table 6.2: Profile of Food-Insecure Women Residing in Northeastern and Southwestern Ontario

<i>Characteristics</i>	<i>Category</i>	<i>Northeastern (n = 210)</i>		<i>Southwestern (n = 198)</i>	
		<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent*</i>
<i>Age (in years)</i>	Less than 30	58	30	60	32
	30–60	92	47	86	45.5
	More than 60	45	23	43	22.7
<i>Self-reported cultural/ racialized group</i>	White	168	81	157	80.5
	Visible minority	39	19	38	19.5
<i>Marital status</i>	Married	41	19.6	39	19.8
	Common-law	27	13	17	8.6
	Widowed/Separated/Divorced	55	26.6	58	29.6
	Single/Never Married	86	41.5	82	41.8
<i>Household size</i>	One person	83	39.7	68	34.3
	Two persons	57	27.3	59	29.8
	Three persons	30	14.4	35	17.7
	Four persons	28	13.4	17	8.6
	Five or more	11	5.3	19	9.6
<i>Household income ('000s)</i>	none or <20	85	40.5	81	41.1
	20–39	68	32.4	67	34
	40–59	31	14.8	21	10.7
	60–79	13	6.2	12	6.1
	80 or more	13	6.2	16	8.1
<i>Education level</i>	Lower than secondary school	64	31.2	55	28.1
	Secondary school	40	19.5	44	22.4
	Post-secondary education	8	3.9	12	6.1
	Post-secondary certificate	93	45.4	85	43.4
<i>Employment</i>	Currently employed	95	51.9	79	44.6
	Unemployed	88	48.1	98	55.4
<i>Fruit & vegetable consumption</i>	Less than five day	146	75.6	127	68.6
	More than five a day	47	24.4	58	31.4
<i>Cut or skipped meals</i>	Yes	115	54.8	104	52.5
	No	95	45.2	94	47.5
<i>Worried food might run out</i>	Often	62	29.5	53	26.8
	Sometimes	126	60	127	64.1
	Never	22	10.5	18	9.1
<i>Cannot afford balanced meals</i>	Often	46	21.9	48	24.2
	Sometimes	121	57.6	106	53.5
	Never	43	20.5	44	22.2
<i>Self-perceived general health</i>	Good	141	67.1	148	74.7
	Poor	69	32.9	50	25.3
<i>Self-perceived mental health</i>	Good	148	73.3	150	77.3
	Poor	54	26.7	44	22.7

*Proportions may not sum to one hundred due to rounding error.

The profiles of food-insecure northern and southern women were the same: the Northeastern Ontario profile indicates white, middle age women, single or never married, with postsecondary certificate, currently employed with an annual income of less than CAD 20K. In addition, the dominant responses of food-insecure women in Northeastern Ontario indicated that they cannot afford balanced meals and often cut or skipped meals, yet most reported that they perceive their general and mental health as good. A profile of food-insecure women in Southwestern Ontario would describe them as white middle age women, single or never married, with postsecondary certificate, currently unemployed with an annual income of less than CAD 20K. In addition, the dominant response of food-insecure women in Southwestern Ontario was that they cannot afford balanced meals and often cut or skipped meals, yet most reported that they perceive

their general and mental health as good. It is worth noting that the pattern of the percentage of women who perceived fair or poor health in Northeastern Ontario was higher (fair or poor, 33%) than that for women in Southwestern Ontario (fair or poor, 25%) but this difference was not statistically significant.

Differences and similarities in health perceptions and food access determinants

The second research question pertains to the examination of any differences in general and mental health perceptions, worries about running out of food, affordability of balanced meals, and frequency of skipping or cutting meals among food-insecure women residing in Northeastern and Southwestern Ontario. Chi-square tests were performed to examine the association between general and mental health perceptions and the following variables: worries about running out of food, affordability of balanced meals, frequency of skipping or cutting meals, education level, employment, household size, and household income among food-insecure women residing in Northeastern and Southwestern Ontario. The results showed that there was no significant difference with regard to the general health perception ($X^2 = 2.85$, $df = 1$, $p > 0.05$), or the mental health perceptions ($X^2 = 0.87$, $df = 1$, $p > 0.05$) of food-insecure women living in Northeastern and Southwestern Ontario. No significant difference was found in worries about running out of food for respondents in each region ($X^2 = 2.30$, $df = 1$, $p > 0.05$). Also, no significant difference was identified in the frequency with which women in each region skipped meals ($X^2 = 0.84$, $df = 2$, $p > 0.05$). Moreover, no significant difference was identified in the attainable education level between women in each region ($X^2 = 1.72$, $df = 3$, $p > 0.05$). The results also showed that there was no significant difference with regard to employment ($X^2 = 1.9$, $df = 1$, $p > 0.05$). In addition, no significant difference was found in the household size and income respectively ($X^2 = 6.44$, $df = 4$, $p > 0.05$) and ($X^2 = 1.96$, $df = 4$, $p > 0.05$). Finally, the comparative analysis revealed that there was no significant difference in affordability of balanced meals between the two health regions ($X^2 = 0.69$, $df = 2$, $p > 0.05$). Table 3 presents an overview of these results.

Table 6.3: Differences between Food-Insecure Women Residing in Northeastern and Southwestern Ontario

	<i>Northeastern</i> n = 210	<i>Southwestern</i> n = 198	<i>Statistics</i>		
			<i>df</i>	<i>X²</i>	<i>p</i>
<i>General health perception</i>					
<i>Good</i>	141	148	1	2.85	0.09
<i>Poor</i>	69	50			
<i>Mental health perception</i>					
<i>Good</i>	148	150	1	0.87	0.35
<i>Poor</i>	54	44			
<i>Worries about running out of food</i>					
<i>Often true</i>	62	53	2	0.76	0.68
<i>Sometimes true</i>	126	127			
<i>Never true</i>	22	18			
<i>Frequency of cut or skipped meals</i>					
<i>Almost every month</i>	47	45	2	0.84	0.66
<i>Some months</i>	40	39			
<i>Only 1 or 2 months</i>	28	20			
<i>Cannot afford balanced meals</i>					
<i>Often true</i>	46	48	2	0.69	0.70
<i>Sometimes true</i>	121	106			
<i>Never true</i>	43	44			
<i>Education level</i>					
<i>Lower than secondary school</i>	31	27	3	1.72	0.63
<i>Secondary school</i>	45	41			
<i>Post-secondary education</i>	7	12			
<i>Post-secondary certificate</i>	120	115			
<i>Employment</i>					
<i>Currently employed</i>	95	79	1	1.9	0.17
<i>Unemployed</i>	88	98			
<i>Household size</i>					

<i>One person</i>	83	68	4	6.44	0.17
<i>Two persons</i>	57	59			
<i>Three persons</i>	30	35			
<i>Four persons</i>	28	17			
<i>Five or more</i>	11	19			
<i>Household income (CAD in '000s)</i>					
<i>none or <20</i>	85	81	4	1.96	0.74
<i>20–39</i>	68	67			
<i>40–59</i>	31	21			
<i>60–79</i>	13	12			
<i>80 or more</i>	13	16			

Factors and/or circumstances associated with general and mental health perceptions

The third research question explored the factors associated with the general and mental health perceptions among food-insecure women residing in Northeastern and Southwestern Ontario. Spearman rho was used to test the correlation between selected ordinal-level variables and general and mental health. Although the correlations were weak, general and mental health perceptions were significantly and negatively correlated with household size: $r = -0.22$, $p < 0.01$ for general health perception and $r = -0.16$, $p < 0.01$ for mental health perception. Similarly, general and mental health perceptions were significantly and negatively correlated with worries about running out of food: $r = -0.27$ and $r = -0.20$, $p < 0.01$, respectively. Women who reported that they could not afford balanced meals had poor perceptions of general and mental health $r = -0.19$ and -0.184 , $p < 0.01$ respectively (see Table 4).

Table 6.4: Correlation of household size, running out of food and balanced meals by general and mental health perceptions

<i>Variables</i>	<i>General health perception</i>	<i>Mental health perception</i>
<i>Household size</i>	-0.215**	-0.162**
<i>Worries about running out of food</i>	-0.267**	-.200**
<i>Cannot afford balanced meals</i>	-0.190**	-0.184**

** Correlation is significant at the 0.01 level (2-tailed), $n=408$.

Chi square was used to explore the association between employment, cut or skipped meals and region with general and mental health perceptions. The findings showed that living in Northeastern or Southwestern Ontario did not influence general or mental health perceptions ($X^2=4.55$, $df=4$, $p>0.05$) and ($X^2=3.97$, $df=4$, $p>0.05$) respectively. However, women who cut or skipped meals had poorer perceptions of general health ($X^2=10.82$, $df=4$, $p<0.05$) and mental health ($X^2=14.27$, $df=4$, $p<0.01$). Furthermore, employment was found to be associated with general health ($X^2=40.99$, $df=4$, $p<0.01$) and mental health ($X^2=15.64$, $df=4$, $p<0.01$).

Table 6.5: Employment, cut or skipped meals and region by general and mental health perceptions

<i>Variables</i>	<i>General health perception</i>			<i>Mental health perception</i>		
	<i>df</i>	<i>X²</i>	<i>p</i>	<i>df</i>	<i>X²</i>	<i>p</i>
<i>Employment</i>	4	40.993	0.00	4	15.639	0.00
<i>Cut or skipped meals</i>	4	10.824	0.03	4	14.269	0.00
<i>Region</i>	4	4.555	0.34	4	3.971	0.41

Discussion

The study found no significant differences in general and mental health perceptions among food-insecure women residing in Northeastern and Southwestern Ontario. However, the pattern of the percentages for women who perceive fair or poor health in Northeastern is higher compared to women in Southwestern Ontario. This finding is inconsistent with previous research conducted by Senthanaar, Kristman, and Hogg-Johnson (2015), who found that residents of

Northern communities have poorer self-perceived health due to limited access to general physicians, specialists, and health and social services compared to those living in Southern Ontario communities. Senthanaar et al. (2015) conclude that different factors, including the geography of Northern and Southern Ontario, should be considered when exploring health outcomes and disability among individuals. One possible explanation for the disparate findings of the current study and Senthanaar et al. is that general and mental health perceptions of food-insecure women are shaped and impacted by various and complex factors, not just access to and availability of health services. Such factors might include women's food choices, socioeconomic status and worries around availability of food. Another possible explanation for this inconsistency is that food insecurity could have a similar effect on women's health perceptions regardless of where they live, while the health perceptions of broader populations across larger areas differ by region. Furthermore, this study utilized a sample of food-insecure women who may have different understandings of general and mental health concepts. This view is consistent with findings by Kaba (2009), who argues that the health perceptions of food-insecure individuals are often based on the socioeconomic and demographic characteristics of the household. Since the sample for the present study is homogeneous in terms of food insecurity, this could explain the similarity of the general and mental health perceptions of food-insecure women residing in both regions.

Nevertheless, this study's findings suggest that the impact of food insecurity on both general and mental health perceptions involves more than geographical context or place of residence. Rather, accessibility of health services, the conditions of socioeconomic disadvantage, household size, employment and income may also be factors at play. The findings are congruent with various studies which also argue that food insecurity, poverty, homelessness, mental illness and other inequities in health determinants force poor and/or homeless women to seek and negotiate different options and services in order to maintain their health and/or the health of their dependents (Adebayo and Abegunrin 2013, Arabindoo 2016, Buck-McFadyen 2015, Chang, Chatterjee, and Kim 2014, Christaldi and Cuy Castellanos 2014, Dachner 2014, Dammann and Smith 2009, Dickinson 2014, Dillabough 2016, DiSantis et al. 2013, Laraia 2013). In turn, these determinants of health could affect food-insecure women's general and mental health perceptions.

This study's findings also indicate that the general and mental health perceptions held by food-insecure women are negatively and significantly associated with household size, worries about running out of food, cut or skipped meals, and cannot afford balanced meals. Despite the correlations being weak, these findings are consistent with those reported by previous researchers (Buck-McFadyen 2015, Chang, Chatterjee, and Kim 2014, Christaldi and Cuy Castellanos 2014, Dachner 2014, Dammann and Smith 2009, Dillabough 2016, Gregory and Coleman-Jensen 2013, Health Canada 2012, Kaba 2009, Rogus 2015, Rose 2014). This study also found that larger household size, together with low income and unemployment, are associated with poorer general and mental health perceptions among food-insecure women. This result is congruent with a study conducted by Buck-McFadyen (2015), which demonstrated that a low household income combined with a larger number of children in the home is the strongest predictor of the health of food-insecure women.

Given the health inequities of food-insecure women, it is not surprising that the present study showed that worries about running out of food, a high frequency of cut or skipped meals and lack of affordability of healthy meals are negatively correlated with good general and mental health perceptions. This correlation could be explained by the complexity of the challenges and stressors faced by food-insecure women, such as paying the rent, stretching the food budget to make ends meet and preparing healthy meals using low-priced food, all of which may in one way and another affect their general and mental health perceptions. In fact, considerable research suggests that food-insecure households, in general, experience various stressors and challenges, such as homelessness, poverty and unemployment which contribute to poor physical and mental health perceptions and adverse health outcomes (Adebayo and Abegunrin 2013, Beaumier and Ford 2010, Buck-McFadyen 2015, Green-Lapierre et al. 2012, Gupta et al. 2015, Harvey 2016, Jarrett, Sensoy Bahar, and Odoms-Young 2014, Laraia 2013, Dammann and Smith 2009, Hadley and Crooks 2012, Smith et al. 2013).

In the current study, the frequency of skipping meals is negatively associated with good general and mental health perceptions. This finding is consistent with that of Smith et al. (2013), who conclude that skipping meals such as breakfast in adulthood is associated with adverse health outcomes, such as being overweight and obesity. Another possible explanation for this finding could be that when food-insecure women try to obtain food by navigating various community-based programs and services, they might have to skip meals due to unexpected circumstances such as sickness, lack of transportation and weather challenges. Therefore, the nutritional needs of food-insecure women who frequently skip meals may not be adequately met, which consequently impacts their general and mental health perceptions.

This study also found a negative correlation between affordability of healthy meals, worries about running out of food and their general and mental health perceptions. A possible explanation for this finding is that the quantity and the quality of food that the women receive from food banks or other services are inadequate as it consists largely of starchy, high-calorie food lacking in protein, fruit and vegetables, which may also impact their health perception and outcomes. These findings are congruent with those of previous studies, which conclude that the health of disadvantaged women is connected to the ability to afford and receive adequate, healthy food in different geographical contexts (Dillabough 2016, Harvey 2016, Maynard 2016). It is possible that food-insecure women are knowledgeable about nutrition and healthy food; however, they are beset by constant worries about running out of food, due to the limited options and local resources available and accessibility issues, as well as the ongoing increases in the cost of rent and food. It may be postulated that, if the women were able to consume healthy foods, including meat, dairy products and fresh fruits and vegetables in reasonably sized portions, and did not skip or cut meals, they might well report better general and mental health outcomes. Broadly, it can be concluded from this study's findings that, among women experiencing food-insecurity, circumstances linked to sociodemographics, economic status and poverty, social and health inequities and vulnerability have negative effects on their general and mental health perceptions.

Strengths and Limitations

While there are several strengths of this study including a large sample size, different geographical zones, and access to large data sets, its various limitations must also be acknowledged here. One such limitation involves the use of a population-based data set. While the use of the CCHS data set was appropriate for the purposes of this study, it is likely that the issue of food-insecure women's health perceptions in different geographical zones is complex and intertwined with other variables; thus it requires a more nuanced approach to its measurement. Although the database included many food security-related variables, several factors that might influence women's food security were not studied such as the need to pay rent and whether or not women have access to and decide to use food banks and community services. Indeed, the information about women's food insecurity in different geographical regions that can be garnered from the CCHS data set may not adequately capture the complex interactions of the various aspects that affect the health perceptions of food-insecure women, including the cultural, geographical and weather-related aspects. In fact, the characteristics of the study sample may have obscured some findings, such as the substantial proportions of 'white females' compared to other vulnerable groups. It is important to recognize racial inequalities as important since minorities are more vulnerable to poverty and food insecurity. Additionally, the availability of culturally appropriate food may also be a barrier, considering Indigenous populations in Northern Ontario. Hence, further exploratory qualitative studies could deepen understanding about the nuances of women's food insecurity and their health perceptions in different geographical contexts. Furthermore, conducting a secondary data analysis of a cross-sectional survey design limited the ability to establish causation. It is possible that general and mental health perceptions of food-insecure women residing in different geographical areas may in turn affect their health-seeking behaviors, health and social services utilization, shopping practices, resilience, resistance strategies and food choices. The nature of the study variables (categorical and ordinal variables) similarly limited the use of various types of statistical tests and analysis. Finally, because the data collection method relied on telephone interviews, this method may have excluded a significant number of food-insecure women who did not have access to a telephone.

Study Implications

There are several implications of the findings of this study. Firstly, the findings help to shed light on the need to address the health of poor women including physical and mental health and how they are connected with various economic determinants of access to food. Indeed, it is well-documented that health perceptions and food insecurity among poor and/or homeless women are largely determined by socioeconomic, political, geographical and cultural factors. Therefore, health and social work practitioners working with various communities need to develop comprehensive approaches for improving the general and mental health of food-insecure women through promoting nutritional knowledge, food choices, and shopping practices among women in Northeastern and Southwestern Ontario. Moreover, the study findings indicate that there is a critical need for income-linked, community-based interventions that mitigate the health and social risks faced by poor and/or homeless women in Northeastern and Southwestern Ontario communities. In addition, attention could also be devoted to gaining a deeper understanding of the mechanisms through which the geography of Northeastern and Southwestern Ontario may impact on the general and mental health perceptions and outcomes of food-insecure women. Moreover, the study findings call for adopting frameworks that are more sensitive to income, employment and geography for designing food access programs. Finally, further comparative data is needed and further studies on other regions in Canada are required to better

understand the influences of the geographical factors that are involved in shaping women's food insecurity and the connection to general health and mental health perceptions.

Conclusion

There is a remarkable similarity in the profiles of food-insecure women residing in Northeastern and Southwestern Ontario. Various stressors and determinants affect the perceptions of health among food-insecure women residing in Northeastern and Southwestern Ontario. These stressors appear to be related to factors such as household income, household size, employment, and food-related worries such as the lack of availability or affordability of healthy meals. Based on the published literature, these factors are tied to community health, geographical challenges and social resources constraints; further research should be conducted with a focus on these variables.

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Chapter 7

7. Discussion

In this chapter, I discuss the findings relative to theory, research, practice and health policy. These findings include the salient themes from the qualitative analyses and the quantitative study findings. This discussion is guided by the general goal of understanding women's experiences of food insecurity in Northeastern and Southwestern Ontario. I connect these themes and results by viewing them through a broader theoretical lens and delve into some of empirical literature. I also use an intersectional lens to highlight women's experiences of food insecurity in different geographical contexts and to present my personal reflections as a researcher. I highlight some of the strengths and limitations of my study, and I explore the implications and make some recommendations for future research, clinical practice and policy development and modification.

Qualitative Study Findings

The themes that have emerged out of the qualitative study can be divided into the four major domains of food and financial hardship, motherhood, resourcefulness, and health perception. These themes were influenced by the Northeastern and Southwestern Ontario contexts.

7.1.1. Food and Financial Hardship

Food availability, accessibility, and quality together with food prices and budgeting, as well as house rental, emerged as the major subthemes of the theme of food and financial hardship in women's experiences of food insecurity. The participants in both Northeastern and Southwestern Ontario revealed how financial hardship made it difficult for them to deal with food insecurity. Indeed, women stated that food availability and accessibility, food prices, house rental, employment opportunities, and access to community resources in both Northeastern and Southwestern Ontario were varied. They were shaped by food insecurity, structural and

sociopolitical issues, adequacy of food programs, and the geographical contexts of Northeastern and Southwestern Ontario. A comparison within and across the narratives of women from Northeastern and Southwestern Ontario revealed that there were some differences between women's experiences of food insecurity in these two areas. However, women's perceptions of food banks in different areas highlighted the remarkable consistency in the general features and nature of their operations. These included reliance on volunteers and donations, the poor quality and inadequacy of the food offered, and women's struggle to access food-related services to meet their food needs within the current policy climate and budgetary constraints. These findings are consistent with A 'live-able' wage regardless of where one lives as well as congruent with several scholars who have investigated women's food insecurity (Black et al., 2012; Carson, 2014; Collins et al., 2014; Ford, Lardeau, & Vanderbilt, 2012; Loopstra & Tarasuk, 2012, 2015).

Women's narratives emphasized that the food and financial hardship producing food insecurity was a crucial element of their experiences in both the Northeastern and Southwestern Ontario context. Based on the information provided by the research participants, access to the current food and housing programs and services appears to be difficult. The criteria for access are not necessarily suitable for all the recipients of these services. While evidence-based knowledge on how geographical context affects access to food and housing services for women is limited, what we do know is that policy modification and gender-specific and place-attached criteria are called for. The predominant intention of government is to provide effective and efficient programs and services, as well as to promote access to them; the findings of the present study suggest this goal is not being met with regard to food and housing programs. Taking into consideration the policy context regarding social benefits and health, it may be stated that the basic aim of food and housing programs is to meet the needs of the recipients of the service.

However, neglecting the influence of geographical place on the availability and accessibility of different services has resulted in a failure to achieve equality and to meet the food and housing needs of diverse women across different contexts who are socially, psychologically, and geographically vulnerable.

A variety of challenges and struggles exist for women facing food insecurity in Northeastern and Southwestern Ontario. These challenges include inadequate income, increased food prices, and increased house rental. In fact, the challenges of low income associated with increased food prices and housing rental were drastic for the participants of this study as women were required to stretch their budget to make ends meet. The majority of the study participants stated that they knew intuitively and experientially that their source of income is inadequate to meet their needs and those of their dependents. Moreover, they reported that their food consumption as well as poor housing has an adverse effect on their physical and mental well-being.

Some of the women's narratives made evident the effects that financial hardship had on their well-being. In particular, Karen from Northeastern Ontario argued that being on Ontario Disability Support Program (ODSP), Ontario Works or in receipt of the "baby bonus" and paying a lot of money for rent, as well as facing the current increase in the prices of food and housing, made it difficult to make ends meet. Jane, Canuo, and Cheryl discussed how they had encountered a similar situation and that this had contributed toward their experiencing the phenomena of "getting behind, pinching and hard, and being on the edge". For women who rely on financial supports—such as child tax benefits or ODSP—as the main source of income while simultaneously paying for costly housing rental and food there is a sense that they must cut back on the cost of necessities, as most of the women explained, they find themselves on the edge.

The high costs of housing and food are associated with women's experiences of food insecurity, yet unhealthy housing conditions and eating unhealthy food can be a major source of distress for women and their dependents. Under such circumstances, maintaining healthy housing and food might be more challenging, stressful, and difficult, as mentioned by some of the women. Additionally, several participants raised the issue of the quality of food that they received from food banks; they stated that the food is largely canned and starchy in nature. Most importantly, there is a lack of protein, fresh fruit and vegetables, all observations that are congruent with previous research findings (Chong et al., 2014; Health Canada, 2012; Laraia, 2013; Tarasuk et al., 2016a; Zenk et al., 2011). Most of the women stated that food security is more than just consumption of food, as the nutritional value must be considered. A comment of particular note is that by Hassan from Southwestern Ontario, who stated that she ate a lot of peanut butter as her source of protein because she could not buy meat, and she received only canned food, pasta, and noodles with no protein content from food banks. These findings on food and financial hardship demonstrate women's concerns regarding community resources and food bank services as attempts to mitigate their experiences of food insecurity in the Northeastern and Southwestern Ontario contexts. A majority of the women stated that the available benefits and charitable sources of food are not viable as long-term solutions.

7.1.2. Motherhood

Another major theme to emerge from the women's narratives was that of motherhood as responsibilities of custodial care for a dependent, which was identified as a common and

significant experience. The women spoke of responsibilities for nurturing their children and ensuring their well-being. These responsibilities forced women to make sacrifices in their personal and social life in order to maintain adequate and healthy food for their children. Further, most of the study participants stated that this was an emotionally sensitive aspect of their food insecurity experiences because they would starve themselves to feed their children first, then eat what was left over. This finding is similar to that of other researchers who concluded that mothers of dependent children in poverty describe the experience of hunger as they struggle to make ends meet. Some researchers have objectively measured the implications of food insecurity amongst mothers, showing that they are 'undernourished' (Arabindoo, 2016; Chong et al., 2014; Evans, 2015; Hamelin, Beaudry, & Habicht, 2002; Harvey, 2016).

The study findings show the incongruence between the responsibilities of custodial care for a dependent and securing food for their families. Collectively, much of the published literature discusses some of the responsibilities that mothers face during times of food insecurity (Buck-McFadyen, 2015; Harvey, 2016; Jarrett, Sensoy Bahar, & Odoms-Young, 2014). Shaikh and Kauppi (2010) argue that motherhood is supposed to be a joyous, rewarding, and fulfilling experience for women and their dependents. However, women facing food insecurity feel inadequate and need to make sacrifices to try to take care of themselves, their child/children, and families.

Participants Lulu, Canou, Karen, Hassan, and Makayla acknowledged that securing food is a demanding responsibility given the primary goal to feed children nutritiously on a daily basis. The activities of child-rearing and maintaining well-being were exhausting but most of the women did not give up. They admitted that their sense of motherhood and love for their children drove them to make some personal and social sacrifices (e.g. no leisure or recreational activities).

These themes resonate with existing literature in which it is reported that women suffering from food insecurity make various sacrifices to ensure that their children are healthy and not hungry (Arabindoo, 2016; Buck-McFadyen, 2015). Generally, the women's narratives reflected how being a mother compels one to experience and handle tremendous pressure to raise *healthy* children by maintaining healthy and adequate food and housing. Further, the majority of the women reported that they use a strategy of *feeding the children first*. They viewed this practice as a sacrifice of motherhood, and if they could not maintain a supply of food for their children, this reflected badly on them as mothers. Lulu and Karen stated that mothers usually challenge their strengths and capabilities to display perfect mothering skills and to prove to others and schools that their children are perfect, healthy, successful, and have all the necessities for their health and development. This narrative of exhaustive mothering together with the availability and adequacy of social services were common among women in both the Northeastern and Southwestern Ontario contexts, and reflects a trend of intensive motherhood that is becoming increasingly prevalent and intensify the motherhood pressure among poor and/or homeless women who experience food insecurity residing in both Northeastern and Southwestern Ontario.

7.1.3. Resourcefulness

As narrated by the participants in my study, certain practices (e.g. food stretching and skipping) were adopted to cope with and to combat food insecurity. These practices and actions have long-term implications for the participants' health because they are involved in some quotidian practices that might affect their health and well-being. As in my study, much of the published literature discusses some of women's quotidian practices to maintain healthy food for their dependents (Douglas, Sapko, Kiezebrink, & Kyle, 2015; Page-Reeves, Anixter Scott, Moffett, Apodaca, & Apodaca, 2014). Stretching and skipping, food sustaining and nurturing

strategies, required cooperation of significant others and constant navigation of local resources. The uniqueness of the notion of food stretching and skipping in my findings among poor and/or homeless women in Northeastern and Southwestern Ontario women is that the majority of the women consider the notions of food stretching and skipping as strategies of resourcefulness as well as extraordinary qualities to have as individuals.

The women's capacity to stretch and skip food by navigating the available resources was visible in diverse ways (e.g. stretching the food budget, utilizing community resources, borrowing money from friends and family members, skipping meals, and engaging in socially unacceptable practices to obtain food). Furthermore, their capacity to stretch and skip food was closely tied to the physical, psychological, and geographic variations in which they were living. In the Northeastern Ontario context, these ties have been shown to provide meaningful resources to meet the demands of food insecurity and child-rearing responsibilities, despite some of the challenges associated with that context (Shaikh & Kauppi, 2010). In particular, Jane and Makayla recounted their strategy for providing healthy food for their children by buying food and meals at frugal prices.

Generally, the women acknowledged and appreciated the contribution of community resources to stretch their food and budget, and most of the women stated that such resources are helpful but not sufficient and that there is a persistent need for more meaningful resources (e.g. social housing, increased income, women-centred services). This finding may be consistent with the study conducted by Iacovou, Pattieson, Truby, and Palermo (2012), in which they conclude that community kitchens may be a helpful strategy to improve participants' cooking skills and could play a significant role in improving participants' budgeting skills by addressing income-related food insecurity. However, the community kitchens and other services are not adequate to

meet the needs and therefore, sustainable, long-term solutions are required to address income-related food insecurity. Food and housing services must be expanded in Northeastern and Southwestern communities to include adequate and accessible services and programs. For example, services such as food baskets and community kitchens could significantly enhance food security for poor and /or homeless women in different geographical settings. The introduction of food basket initiatives and a focus on health promotion and illness prevention services through community health centers and the empowerment of poor women would also be very useful. This study revealed that it is imperative that the availability and access to food and housing services be achieved in relevant ways in the Northeastern and Southwestern Ontario. For example, women in the study from both regions found that food banks and programs are beneficial but inadequate. Moreover, the availability and access to food and housing services limits the ability of food insecure women in both regions of the province to reach their full potential and to promote their physical and mental health in ways that poor and/or homeless women deem important.

Additionally, support from friends and family members, in addition to engagement in risky practices for food—such as stealing and sex work mainly those experiencing homelessness played a significant role in the women’s battle against food insecurity. These study results are similar to those of Page-Reeves et al. (2014) who found that women engage in a range of practices to secure food; they concluded that women adopt various strategies and practices such as, mobilizing social capital, their own cooking strategies, effective and smart shopping, and expanding their food budget through the use of public net programs, coupled with using free or reduced cost meals Page-Reeves, Anixter Scott, Moffett, Apodaca, and Apodaca (2014). Gupta, Singh, Seth, Agarwal, and Mathur (2015) also noted that poor women tend to adopt some coping

strategies as a way to minimize the impact of food insecurity in the households such as preparing inexpensive meals. They also concluded that understanding food insecurity coping strategies could be a beneficial starting point to develop community based and contextually sensitive interventions to improve household food insecurity. Similar to my study, (Buck-McFadyen, 2015) also revealed that poor women reported some common practices to confront food insecurity such as spending considerable time and effort on preparing inexpensive, nutritious food, as well as traveling long distances for grocery shopping in order to buy food on sale.

Further, because the majority of the sample in this study consisted of Indigenous women or women from diverse minority ethnicities, it may be argued that the cultural backgrounds of women (i.e., minority and vulnerability statuses) are connected to their experiences of food insecurity, mothering practices and on their resilience. Furthermore, such diverse ethnicity might mitigate the potential of how women's social locations might help them cope. This connection between food insecurity and women's vulnerability means that the notion of utilizing intersectionality as a theoretical framework within the physical, structural, social, and geographical ecologies of Northeastern and Southwestern Ontario is of some significance.

The qualitative findings of this study on resourcefulness are consistent with other studies. In general, numerous researchers argue that women who face food insecurity often adopt diversified and creative tactics to mitigate their experiences of food insecurity, such as making harmful, and sometimes ineffective decisions about how to feed their family or dependent children. My study findings are similarly reflected in other writings about food insecure women. For instance, Nielsen, Lund, and Holm (2015) describe the prevalence of various levels of food budget restraints in a sample of 1,650 Danish households and explore several types of coping strategies to deal with such restraints.

7.1.4. Health Perception

A growing body of research suggests that women's food insecurity has an effect on their physical and mental health and well-being (Camel, 2014; Crawford et al., 2015; Prezzato, 2015). However, there have been few studies to date that compare these effects across Ontario. In my study, the participants discussed how their physical health consequences and the outcomes of food insecurity are associated with unhealthy diets. The study participants discussed numerous and varied chronic physical and mental health conditions directly associated with their diet. They assessed their overall health as a concern given that it was perceived as a necessary resource to feed their family. The presence of ill health negatively impacted on their abilities to stretch their budget as there was a risk of symptom exacerbation and increased vulnerability. Further, the women explained that living in food-insecure households influenced their physical health, which manifested as weight change problems, poorer heart and oral health, and greater likelihood of suffering from chronic conditions such as pain, fatigue, diabetes, hypertension, and cancer. The women also emphasized the role of food in promoting well-being, better health, and reducing the risk of developing diseases.

These findings are consistent with the burgeoning literature on women's food insecurity that demonstrates its impact on physical and mental health (Crawford et al., 2015; Hogan et al., 2016; Kirkpatrick et al., 2015; Rodriguez, Applebaum, Stephenson-Hunter, Tinio, & Shapiro, 2013). Moreover, in my study, the women explained that food insecurity also makes it difficult to manage existing chronic conditions, such as diabetes, hypertension, pain, fatigue, food allergies, and arthritis. They explained that food insecurity and health influence each other in a cyclical pattern. With Hassan being unable to walk, and Carrie not wanting to eat, they explained that when women have inadequate food intake their health conditions worsen, and then because

their conditions worsen, it affects their food intake. Thus, these women and others are critically constrained in their ability to control the quality and quantity of food they consumed, and this eventually affected their health and well-being.

Barrett (2011) asserts that there is a robust relationship between food security and indicators of physical and mental health. In particular, women who are less likely to eat a healthy diet including fresh fruits and vegetables are more likely to suffer from long-term physical or mental illnesses, perceive that they have poor physical and mental health, and perceive more stress, more worries, powerlessness, and desperation, are less satisfied with their lives, and feel less attached to their communities. Roncarolo et al. (2016) assert that participants who utilize traditional interventions such as food banks to lower their food insecurity have a perceived improvement in their physical and mental health. This study finding is congruent with my study findings. However, Roncarolo et al. (2016) also argue that, although food banks decreased the food insecurity and improved the perceived health of the participants in their study, it is questionable whether food banks are the most effective, efficient, and appropriate solution to the issue of food insecurity. Most of my participant's narratives revealed that, while food banks play significant role in reducing their hunger, most of the women in the two regions of the province questioned the quality of the food that they receive from food banks from health perspective. Furthermore, my participants asserted that the voluntary, donation-based nature of food banks make it a questionable option to solve their food insecurity. Most of the women's discourses highlighted food insecurity as related to stress, anxiety, depression, and other psychiatric disorders. They were also of the opinion that solving their food insecurity problems may help prevent their mental health problems or even promote their recovery. Some of the study

participants mentioned the healing power of writing or talking with others about traumatic events to promote their mental health.

This study's participants had experienced stigma in relation to their food insecurity; they spoke of negative stereotypes attached to mental illness and the connection with drug use, suicidal ideation, depression, worries, and desperation experienced by poor and/or homeless women. Similarly, Pryor et al. (2016) conducted a quantitative cross-sectional study on the association between food insecurity and mental health problems among adults and they ascertained that food insecurity co-occurs with depression, suicidal ideation, and substance use problems in young adulthood. Their study findings suggest that a reduction in the food insecurity of young adults may help to mitigate and sometimes prevent mental health problems. Further, they recommended that policies aiming to prevent food insecurity should target individuals' psychiatric problems, poor mental health, and low socioeconomic status. Their study findings are consistent with my study findings, where women's food insecurity has been found to be connected to anxiety, depression, worries, powerlessness, and desperation.

The women's narratives around stigmatization, oppression and social exclusion justified the significance and suitability of adopting intersectionality as a theoretical lens through which to explore women's food insecurity because their narratives are quite compatible with the basic assumptions of intersectionality. In particular, Karen stated that stigma is reinforced by those who are more powerful and food- and financially-secure over those who are poor and/or homeless, oppressed, powerless, and weak. Moreover, Karen asserted that women who are poor experience anger and desperation about their social status, which has negative effects on their physical and mental health and the health of their dependents. This study finding is congruent with a conclusion by Shaikh and Kauppi (2010) that the process of stigmatization is associated

with social, economic, and political power that promotes inequality by segregating poor and/or homeless women and reinforcing social exclusion, oppression, powerlessness, and discrimination.

Additionally, the women turned to health-care providers to seek help for their physical and mental health issues associated with food insecurity. Most of the study participants argued that their commitment to household responsibilities, love and affection for and intimacy with their children were driving forces as well as legitimate and justified reasons for seeking professional help to deal with their physical and mental health issues. The involvement of health and social care providers varied by geography: women in Northeastern Ontario tended to wait to get an appointment or referral for a longer time than did women in Southwestern Ontario. This geographical-based variation in health access forced women in Northeastern Ontario to look for other options to address their health issues—including using over the counter medications rather than remaining on a lengthy waiting list for a referral. On the other hand, and in particular, Karen, Spring, Makayla, and Lulu from Southwestern Ontario reported that they had to be healthy and strong enough in order to survive and handle the burden of child-rearing responsibilities. These women stated that they sought professional help to overcome the physical and mental struggles associated with food insecurity. This finding suggests that they did not consider their health alone to be a sufficient reason to seek medical help for what is clearly a health-related issue. They also learned not to think of their own wellbeing as valuable enough to warrant intervention.

7.1.5. The Northeastern and Southwestern Ontario Contexts

Women's food insecurity was shaped by the sociopolitical, structural, and geographical dimensions of the Northeastern and Southwestern Ontario communities in which the women

resided. In recent years, geographical place has been recognized as a significant indicator for understanding household food insecurity, mitigating strategies, and health and well-being (Health Canada, 2012; Hofmann & Dittrich, 2012; Hoisington, Butkus, Garrett, & Beerman, 2001; Larson & Moseley, 2012; Zenk et al., 2011).

In general, sense of place can be defined as an individual experience that encompasses the personal and emotional attachment to a place (Årestedt, Benzein, Persson, & Rämgård, 2016). This experience emerges from the intersection between personal–place interaction as well as social relations at the specific place. Indeed, family relations, sociopolitical structures, and shared experiences within a specific geographical place may affect the resources that may promote or hinder the health and well-being of the residents in that place (Årestedt, Benzein, Persson, & Rämgård, 2016). Some sociopolitical and structural features of communities in Northeastern and Southwestern Ontario posed special challenges to the study participants. These challenges included access to health and social services and unavailability of certain medical and social services, particularly in Northeastern Ontario. This challenge exists because of a shortage of physicians, isolation, poverty, and inadequate community services and food banks, as well as challenging weather conditions in Northern Ontario (Shaikh & Kauppi, 2010).

In this study, my participants argued, while narrating their experiences of food insecurity, that geographic location embodied certain sociopolitical, structural and weather-related issues. Regardless of their community's status as Northeastern vs Southwestern Ontario, most of the Northeastern Ontario women expressed similar challenges as described above, which contributed to special challenges for them.

Despite the above-noted restrictions in Northeastern Ontario, the women in my study, as well as those in a previous study (Shaikh & Kauppi, 2010), demonstrated resourcefulness by

accessing community resources and services located in different geographic settings, by connecting with family members and through the involvement of significant others such as friends (Shaikh & Kauppi, 2010),

Contrary to expectations, the women from Northeastern Ontario argued that being residents of Northern Ontario, with all its attendant difficulties related to insufficient resources and inclement climate, equipped them with various coping strategies to confront food insecurity (O’Gorman, 2018). Further, they reported that they were able to recognize both the positive and negative features of their place of residence that were connected with food and financial hardships and resilience (e.g. the long, cold winter, stronger social ties), which implied that Northeastern Ontario, as a place of residence, has its own strengths and challenges. This finding is congruent with other study findings, in which mothers residing in Northern or Southern Ontario communities reported various strengths and challenges of their place of residence in facing stressful circumstances (Benbow, 2016; Senthanaar et al., 2015; Shaikh & Kauppi, 2010; Wakefield et al., 2015; Walsh & van Rooyen, 2015).

The study findings showed that women’s food insecurity is connected to socioeconomic, structural, geographical, and local environment factors that may interfere with the freedom and the purchasing power exercised by household members. These findings are consonant with other studies (Barbeau, Oelbermann, Karagatzides, & Leonard, 2015; Loopstra, 2014a; Motbainor, Worku, & Kumie, 2016; Page-Reeves, 2014; Polsky, Moineddin, Glazier, Dunn, & Booth, 2014). These elements highlight the potential role of geographical context, residency, and environment in ameliorating women’s food insecurity and, consequently, their health.

Quantitative Study Findings

The comparative quantitative analysis showed that there were few differences in health perceptions among food-insecure women residing in Northeastern and Southwestern Ontario. This study finding is inconsistent with previous studies asserting that geographical place as a health determinant, is a significant indicator for the well-being of poor and/or homeless women (Health Canada, 2012; Hofmann & Dittrich, 2012; Hoisington, Butkus, Garrett, & Beerman, 2001; Larson & Moseley, 2012; Zenk et al., 2011). From an intersectional approach, one possible explanation for this inconsistency could be that food-insecure women in different geographical places adapted creative strategies to promote their health and well-being by utilizing various available resources regardless of their area of residence or the geography of their community. Furthermore, the type of data might affect the results; this study utilized secondary data in its analysis. Therefore, further studies could assist in exploring the health perceptions of food-insecure women in different geographical contexts in greater depth. While there was no statistically significant difference based on the above-mentioned test, there were differences in my interview groups. For instance, the women residing in Northeastern Ontario reported a higher level of food-related worries compared to those in Southwestern Ontario. Moreover, women from Northeastern Ontario engage more often in unhealthy practices to maintain a food supply for themselves and for their families than those in Southwestern Ontario. Particularly during wintertime, the cold and other weather-related issues, such as the availability of transportation and the feasibility of walking to food services, are the challenges that are most often encountered by the women residing in Northeastern Ontario.

The correlation analysis showed that there were significant correlations between household size, employment, worries about running out of food, affordability of balanced meals, frequency of cut or skipped meals, and health perceptions of food-insecure women residing in

Northeastern and Southwestern Ontario. These study findings are consistent with other studies revealing that various factors affect the health perceptions of food-insecure women (Buck-McFadyen, 2015; Gupta, Singh, Seth, Agarwal, & Mathur, 2015; Harvey, 2016; Jarrett, Sensoy Bahar, & Odoms-Young, 2014; Smith, McNaughton, Cleland, Crawford, & Ball, 2013). These potential mitigating factors could be tied to the selected communities' cultural, geographical location and resource constraints.

Study Strengths

This research project addresses a gap in the literature by exploring food insecurity among women in Northeastern and Southwestern Ontario. The existing literature on women's food insecurity has pointed out the experiences of women's food insecurity without exploring the impact of geographical location and place of residency on these experiences across Ontario, Canada. Loopstra (2014a) states that comparative studies of women's food insecurity and food programs operating across Canada have not been conducted. To the best of my knowledge, this research is the first to explore women's experiences of food insecurity, the impact of area of residency and geographical contexts, and women's perceived physical and mental health with the combination of qualitative and quantitative methods. This research advances knowledge in the area of women's food insecurity and the effects of geographical context and place of residency

Utilizing a broad conceptualization of women's food insecurity in different geographical contexts, the current study brings forward the voices of poor and/or homeless women who have experienced food insecurity. Additionally, the interdisciplinary nature of the study allowed the integration of theoretical and empirical knowledge from varied disciplines including social work, nursing, and geography. The study explored the health, social, geographical, sociopolitical, and

structural issues that combine together to shape the experiences of women's food insecurity in different geographical contexts.

By utilizing an intersectional lens to portray multiple realities and identities, the current study provides an opportunity for a robust discussion around women's food insecurity that involves women, academicians, clinicians, and policy makers. This discussion enables the acquisition of a deeper understanding of women's experiences of food insecurity in the Northeastern and Southwestern Ontario contexts which may inform future research and policy modification in the health and social service sectors.

Study Limitations and Challenges

Capturing the complexities of this mixed methods approach is a research challenge because of the interactions of many layers of variables in the sociopolitical and economic realms under consideration. Research that involves poor and/or homeless women, as well as processes of research that acknowledge my personal stance is another challenge. Furthermore, the outcomes may not be generalizable to other communities. While efforts were made to include a broad cross-section of persons informed about women's food insecurity, poverty, and homelessness in the target community, no claims can be made that all relevant experiences or opinions are represented in the data. For example, I included a reasonable balance of women who were parents, single parents or without dependents. However, all participants were interviewed using the English language, so the experiences of Francophones are not reflected in the findings. The Southwestern data were collected by the researcher in order to reduce the possibility of misunderstanding the meanings of participants (i.e. interviewer error). However, Northeastern data were collected by the Poverty, Homelessness and Migration team. Therefore, implementing different approaches in collecting the data could have resulted in some types of

response bias such as social desirability bias and interviewer bias. Also, utilization of the qualitative paradigm restricts the ability to generalize study findings to the food-insecure population beyond the study.

Study Implications/Anticipated Benefits

It is vital to provide details of the implications of this study for clinical practice, and for policy development and modification, that arise from this dissertation as well as to make some recommendations for future research.

7.5.1. Future Research

Prior research has shown that poor and homeless women benefit from participation in research projects (Burgess-Proctor, 2015; Clover, 2011). They are often socially isolated and marginalized; the opportunity to participate in research and individual or group interviews is a positive experience for them when the research is conducted in a way that creates an atmosphere in which the participants feel comfortable, empowered, and respected. Future studies that adopt a critical approach could validate the results of this study by using different samples or a more complex research design to obtain a more robust evidence. For example, food insecurity among rural refugee women in Northern and Southern Ontario could be the subject of a future study. It would also be helpful to know how food insecurity experiences differ among women, such as those with bulimia nervosa or obesity. Future research also needs to address the determinants of food insecurity and the community responses that shape these determinants by selecting more sites from across the country to discover other examples of diverse communities developing their own unique policies and solutions pertaining to food insecurity and homelessness.

Further research studies are also required to investigate how healthy food subsidy initiatives could have an impact on the nutrition and health of low-income women with children

in different geographical contexts. Moreover, it would be worth conducting health and social policy research to address the issue of practical strategies for reinforcing public health promotion initiatives, including women's health programs, school nutrition programs, and healthy food subsidies programs. In the future, researchers need to explore the impact of a broader range of social determinants of health on women's experiences of food insecurity and homelessness. It is also important to consider more diverse samples from rural, urban and different communities across the country to obtain more comprehensive interpretations of women's food insecurity.

Furthermore, studies on food-based and income-based solutions that address the connection between food insecurity and income is a key research direction that could be followed to reach food-insecure households and to limit the impact on women's experience of food insecurity (Collins et al., 2014). Future research to address the chronicity as well as the temporality of women's food insecurity may be important in gaining an in-depth understanding of food insecurity and women's health and to inform future initiatives or interventions.

Finally, there is an urgent need to conduct comprehensive and comparative research that adopts a critical and dignified approach to assessing the impact of food insecurity on women's health and well-being; also there is a need to ensure that municipal- and community-specific actions on food insecurity are evidence based (Collins, Power, & Little, 2014).

7.5.2. Clinical Practices

The views expressed by the participants in this study will enable stakeholders, service providers, and community members to identify gaps in resources and devise locally grounded long-term solutions to address the food insecurity faced by women who are absolutely homeless

or at-risk of homelessness. It is anticipated that service providers will benefit from this research by learning about the strengths, as well as the deficiencies of the resources within the selected communities, and by gaining new knowledge/strategies to address the gaps in services and improve service delivery. The findings of this study assist in generating greater knowledge and understanding about the nature and extent of the food insecurity experienced by homeless and near-homeless women and the personal strategies utilized to cope with the basic need for food and survival in Northeastern and Southwestern Ontario.

Also, the findings call for intersectionality -based guidelines that translate into social justice, anti-oppressive practice at individual, family, community, and system levels. Further, the study findings reveal the strengths and deficiencies in the existing services and resources within the community, identify gaps in services/resources, and generate strategies or solutions to enhance the community's response to food insecurity encountered by homeless or near-homeless women. Furthermore, the findings could make a significant contribution with regard to access to health and social services for poor and/or homeless women. An intended contribution of this research project is to reveal how effective government–community partnerships can be in different geographical settings in areas pertaining to poverty, food insecurity, and homelessness. Indeed, the unique experiences of women's food insecurity and homelessness in different geographical contexts preclude adherence to particular initiatives and interventions and require service providers to show some flexibility and creativity in dealing with poor and/or homeless women. Practitioners may use this study's findings to address women's food insecurity in their local areas. They may consider some of the suggested intervention options and select those initiatives and strategies best suited to their local conditions. Broadly speaking, service providers need to help poor women share their food- and housing-related challenges, which might inform

existing services in a way that promotes the quality of the delivered services to generate a sense of empowerment, belonging, and problem solving. Hence, service providers need to pay attention not only to the personal and emotional spheres of women's experiences of food insecurity, but also to the broader social, geographical, environmental, cultural, and political discourses that affect women's physical and mental health.

This argument echoes the assumptions of a strengths-based approach that assumes that all service users such as poor and/or homeless women have their own strategies and strengths, despite their geographical residency, challenges, and their marginalization status. This means that women have the potential to decide what is best for them and their dependents and to propose measures to overcome food insecurity and homelessness under given circumstances that are drawn from personal experiences and based on available community resources. In doing so, poor and food-insecure women can be empowered and helped to discover their potential to enhance their personal strengths and coping ability to deal with food and housing crises and to remove themselves from marginalization and adversity. This implies that service providers should not restrict themselves to particular sets of rules, regulations or practices in dealing with women's food insecurity and homelessness. However, flexible, context-specific and creative practices might not be easy to implement in the current environment of financial restraint, efficiency drives, and budgetary constraints.

Additionally, the study findings suggest that for interventions to address the mental health challenges of women who are food insecure are needed because such interventions can influence long-term outcomes of poverty and ill health. The study findings call for the launch of local and women/gender-specific loans and grants programs, mainly targeted at low-income women, with detailed directions on how to implement, monitor, and sustain such programs in

response to women's food and housing crises. The political implications of food banks and food insecurity have been explored by various scholars and practitioners, including the federal, provincial, and private-sector level (Carson, 2014). Yet, in interviews, the participants demonstrated a comprehensive understanding of the reality of food banks and women's food insecurity at the community level. The study findings suggest that there is a need for building community capacity that involves intersectoral partnerships, while adopting the best practices relative to characteristics of community to combat women's food insecurity. Innovative practices can be shared, tested and implemented in various locations in different regions of Canada. Indeed, food-based initiatives should particularly target local and community-specific food needs because the issue of food insecurity is impeded with regard to the potential of these initiatives to reduce food insecurity at the municipal level while accommodating sociopolitical and geographical considerations of specific community needs. However, extensive monitoring and evaluation of the existing health, social, and community-based services should be regularly performed to assess their fit and accessibility, cultural awareness and appropriateness, diversity, and effectiveness (Vahabi & Damba, 2013).

7.5.3. Policy Development and Modifications

The study findings can be applied to policy development in order to identify potential policies to be developed or modified, using information from women about their experiences of food insecurity and homelessness, accompanied with the relentless demands of motherhood. This study revealed that initiatives and interventions at the policy level are especially important because it is at this level that women's food insecurity can best be addressed. Those developing, evaluating or modifying any new or existing policies or initiatives pertaining to food insecurity and homelessness should consider undertaking gender-specific and geographical analyses to

provide evidence of effectiveness in a local context. In the following section, I discuss policy options under two categories: public health policy and social policy.

Generally, women's food insecurity and homelessness are closely intertwined with social welfare policies. The majority of the participants in this study argued that there is a need to foster women's resilience by developing social policies that promote the better distribution of employment opportunities for poor and/or homeless women within the public sphere. Based on women's narratives, social welfare policies should take into account the needs of low-income women to help them move from low-wage, insecure employment to a guaranteed income that can maintain necessities such as food and shelter (Emery et al., 2013).

The participants in this study argued that the implementation of social welfare policies and programs targeting the roots of poverty would lead to a dramatic shift in their physical and mental health. Through such policies, poor and/or homeless women who received a guaranteed income would become healthier and therefore reduce the burden on the public health-care system. Further, almost all of the participants stated that, due to the current employment challenges of poor and/or homeless women, it would be worthwhile to consider some policy modifications to increase social assistance income or child tax benefits because these are a main source of income. Moreover, the participants argued that policies around transfers of cash and tax points could feasibly be adjusted and modified through collaboration between the federal government and the provinces, and they asserted that this type of policy modification would affect their entire life, as was also noted in prior research (Emery, Fleisch, & McIntyre, 2013). A key future policy dimension pertains to the intersection of social policies with women's food insecurity and homelessness along with income-based policies such as child tax benefits and

minimum wage rates. These kinds of supports are used by poor and/or homeless women to minimize household expenses including subsidized childcare relate to women's food insecurity.

Below are some proposed policy recommendations that could help to address women's food insecurity in different geographical contexts:

- Multi-sectoral collaborations, action plans, and policies should be initiated to improve women's food security in different communities. This collaboration should be incorporated into broader food and place-based initiatives and strategies to address poor and/or homeless women's health inequities.
- A gender-specific and geographically informed framework of food security should be developed that addresses food supply and access to food as important determinants of women's food insecurity in different geographical contexts.
- Different agents, such as staff in government departments, non-government agencies, and resident or community groups should be involved in initiatives to fight women's food insecurity at the regional and national levels. This could include chambers of commerce, local farmers groups, local transportation system providers, housing projects, and community projects (Loopstra & Tarasuk, 2015; Tarasuk, Mitchell, et al., 2014; van der Horst et al., 2014; Wakefield et al., 2015). These initiatives should target both the quality of food as well as access to food by food-insecure women in specific communities.
- Local food policy fora, food policy councils, or poverty roundtables should be set up to improve the local food supply and access to food by poor and/or homeless women. Such fora would offer a way of engaging powerful and influential policy makers and stakeholders to negotiate some possible changes to many aspects of the local food supply and access system.

- Policy makers and stakeholders should be updated about the prevalence of food insecurity and the experiences of hunger among special groups such as poor and/or homeless women. Furthermore, their attention should be drawn to the quality of food that poor and/or homeless women receive from food banks or community kitchens, the “shortage of food” within an affluent country, and the general physical and mental health impact of food intake and food insecurity.
- Policymakers, stakeholders, and chambers of commerce should develop guidelines and regulations that assist in capturing the term of food environment and mapping the location and the distribution of community food retail outlets in relation to residential areas and should also undertake frequent monitoring of local food availability, quality, and prices.
- Policies that support food subsidies and incentives to improve women’s food security in different geographical contexts, such as subsidizing food transport to rural and remote areas, should be advocated (Loopstra & Tarasuk, 2015; Tarasuk, Mitchell, et al., 2014; van der Horst et al., 2014; Wakefield et al., 2015).
- Policymakers should consider offering food security-related grants to local organizations and researchers so that they can constantly monitor and address various aspects of food insecurity among poor and disadvantaged groups.
- Local policy regulations should be proposed to normalize and de-stigmatize subsidized meal distribution for low-income groups. These meals could be provided by community clubs, churches, and schools in the form of breakfast or lunch. Subsidizing meals provided in such a way could help in minimizing the power differentials that enable such meals to become a socially desirable option among disadvantaged groups.

In summary, public health and social policies in the domains of women's food insecurity and homelessness can be designed in a way that enables them to address the unique experiences of households' food insecurity and homelessness and foster resilience among poor and/or homeless women.

Data Dissemination Plan

All the participants in this study were informed of how they would be able to obtain information about the results of this research. The participants were also informed that copies of the final report would be posted on the PHM website at www.lul.ca/homeless. Summaries will be available in the community via partnering agencies, including the service providers/stakeholders involved with the project. The study findings were presented at conferences like the Northern Health Research Conference and Canadian Alliances to End Homelessness (CAEH) Conference. Additionally, the findings will be disseminated in peer-reviewed journals such as the *Food Studies* journal and *Canadian Food Studies* journal. Moreover, the findings will be utilized to write grant applications for a long-term research program in the domains of poverty, food insecurity, and homelessness for other urban, rural, and remote communities in Northern and Southern Ontario.

Concluding Remarks

This thesis was initially inspired by circumstantial evidence suggesting that geographical context, place of residency, and socio-demographic and political circumstances interact to influence women's food insecurity, poverty, homelessness, and health outcomes. The health of Northeastern Ontarian women was of particular interest. In this thesis, I paid particular attention to the impact of geographical context (in this case that of Northern versus Southern Ontario) on

women's food insecurity and health; a currently poorly understood phenomenon. This lack of knowledge sparked a need to further understand women's lived experiences pertaining to food insecurity and health in different geographical, sociopolitical, and structural circumstances of Northeastern and Southwestern Ontario.

Guided by an intersectionality framework, I sought first, to make more detailed comparisons of women's lived experiences of food insecurity, poverty, and/or homelessness and shed light on the influence of different sociopolitical, structural, and geographical aspects in Northeastern and Southwestern Ontario. Second, I aimed to assess the relative impact of food insecurity and homelessness on attaining better health and well-being among women in Northeastern and Southwestern Ontario. Third, I identified the profile of food-insecure women and the factors associated with food insecurity and homelessness among women in Northeastern and Southwestern Ontario.

Overall, the thematic concept map has served me well in this study. The study findings have contextualized the impact of women's food insecurity within a broader range of social determinants of health. The intersectionality framework helped me to understand the intersecting nature of the gender, geography, place of residency (home), sociopolitical, and structural aspects of women's food insecurity and their impacts on health and well-being. More importantly, it has allowed me to discover several interesting underlying nuances associated with the determinants of food insecurity and homelessness among Northeastern and Southwestern Ontario women.

This research project has addressed the requirement of originality and achieved its objectives of exploring poor and/or homeless women's experiences of food insecurity and homelessness in different geographical contexts, and more specifically the impact of food insecurity, poverty, and homelessness on attaining better health and well-being among

Northeastern and Southwestern Ontario women. Further, it has allowed me to identify the profile of food-insecure women residing in Northeastern and Southwestern Ontario. Indeed, Northeastern and Southwestern Ontario women reported somewhat different experiences pertaining to food insecurity and homelessness that are tied to sociopolitical, structural, and geographical contexts.

This study also discovered that a considerable number of women did not rely on the available options to attain good health due to access challenges, which suggests that there is a need to consider a broader range of issues linked to social determinants of health in order to more clearly understand their experiences in different geographical contexts. Nevertheless, interview data suggest that Southwestern Ontario women had better access to food, housing, and health services than Northeastern Ontario women. As a result, improving the access and health outcomes of Northeastern Ontario women should include, among other interventions, improving access to food and housing services.

More specifically, the findings of this dissertation highlight the possible role of geography and place of residency in promoting health and well-being, that Northeastern and Southwestern women merit greater attention, and that the role of certain determinants, trends, and patterns of food insecurity (i.e. income, social support, housing and health services) may be of significant relevance. Such findings are important in shaping public and social policies that are closely intertwined with gender and geography. Further, there is a need to advocate for health promotion activities and campaigns because even slight improvements in Northeastern and Southwestern Ontario women's health and sense of well-being are well worth the effort.

To sum up, the results of this dissertation suggest that there is an urgent need to take into account both geography and place in tackling women's food insecurity in Northeastern and Southwestern Ontario.

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Appendices

Appendix A: Ethics Approval



APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / New / Modifications to project X / Time extension	
Name of Principal Investigator and school/department	Areej Alhamad, Interdisciplinary PHD in Rural & Northern Health, supervisor Carol Kauppi, Social Work
Title of Project	<i>Food insecurity, Poverty and Homelessness as Key Social Determinants of Health in Northern Ontario</i>
REB file number	2015-10-19
Date of original approval of project	Dec. 22 nd , 2015
Date of approval of project modifications or extension (if applicable)	April 05 th , 2016
Final/Interim report due on: (You may request an extension)	December, 2016
Conditions placed on project	

During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate LU REB form. In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office. Congratulations and best wishes in conducting your research.

Rosanna Langer, PHD, Chair, *Laurentian University Research Ethics Board*

Appendix B: Consent Form



CONSENT FORM FOR INTERVIEWS WITH HOMELESS OR NEAR

HOMELESS WOMEN

Study Title: Food Insecurity, Poverty and Homelessness: A Comparative Study Between Women in Northern and Southern Ontario

Researcher: Ms. Areej Alhamad, PhD student, Interdisciplinary PhD in Rural and Northern Health, Laurentian University

Supervisor:

Carol Kauppi, PhD Professor, School of Social Work, Laurentian University

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about a study being conducted by Areej Alhamad, PhD student, Interdisciplinary PhD in Rural and Northern Health, Laurentian University.

- I understand that that the purpose of this study is to identify patterns and trends in food insecurity, hunger, poverty and homelessness and to explore experiences amongst poor and homeless women with or without dependents in remote, rural and urban communities within northeastern Ontario.
- The information from this study will be used for ongoing research and education about food insecurity and poverty faced by homeless or near homeless persons in the northern Ontario.

- I have been informed that I will participate in an individual interview and share my experiences of food insecurity, food deprivation and homelessness. The interview will take about 45 to 90 minutes and will be arranged at a convenient date, location and time.
- If I will feel upset during the interview, it will be stopped. I have been informed that I may withdraw my consent at any time without penalty by advising the researcher.
- I will be given a list of services (e.g. counseling and other services for poor and homeless people).
- I am aware that I have the option of allowing my interview to be audio-recorded to ensure an accurate recording of my responses. The data will be kept secure in the office of the researcher and in the offices of the Centre for Research in Social Justice and Policy, Laurentian University (B-8032 or B-8034, or B8004, Willet Green Miller Building) with access restricted to the principal investigator and the research team.
- I am aware that only the researchers and research staff will ever see the transcripts or hear the audio-recording from the group interviews.
- I understand that the researcher will respect the privacy of the information that I will provide. I can sign the consent form with an x, street name or initials.
- The researcher will use quotations from interviews and label them with pseudonyms. Your name will not appear in the reports, peer-reviewed journal articles or conference papers.
- I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.
- The information gathered will be destroyed in five years after the end of the project by shredding transcripts and by deleting electronic files.

- The results of the study will be provided to service providers serving homeless people and will be posted on the project website (www.lul.ca/homeless). Copies will also be available through a report provided to the community partners involved with the project.

I have received a copy of information letter and consent form. This study has been reviewed and received ethics clearance through Research Ethics Board at Laurentian University. If you have any comments or concerns with this study, feel free to contact the Research Office, Laurentian University at: 705-675-1151 ext. 3213, 2436 or toll free at 1-800-461-4030 or email ethics@laurentian.ca.

Should you require further information or clarification, please do not hesitate to contact the lead investigator Areej Al hamad, 705-988- 4780 (aalhamad@laurentian.ca) or supervisor Dr. Carol Kauppi, (ckauppi@laurentian.ca). 705-675-1151, ext. 5058 or 1-800-461-4030 ext. 5058. I can also call the Office of Research Services at 1-800-461-4030 ext. 3213 .

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

YES NO

I agree to have my interview audio recorded.

YES NO

I agree to the use of anonymous quotations in any report or publication that comes of this research.

YES NO

Participant's signature (i.e. Street name or initials or X): _____ Date: _____

Appendix C: Letter of Information



Study Title: Food Insecurity, Poverty and Homelessness: A Comparative Study Between Women in Northern and Southern Ontario

Researchers

Ms. Areej Alhamad, PhD student, Interdisciplinary PhD in Rural and Northern Health
Laurentian University

Dr. Carol Kauppi, Professor, School of Social Work, Laurentian University (Supervisor)

The purpose of this study is to understand the nature of food insecurity/deprivation and hunger experienced by homeless or near homeless individuals, factors lead to food insecurity, strategies used by you to meet your food needs, your opinion regarding community resources, and possible solutions to reduce and eliminate food insecurity and hunger faced by homeless or near homeless persons. The study will generate information that can lead to a better understanding on the part of local authorities, service providers and homeless people about the human rights to the most basic necessities of life and the adequacy of community resources in reducing and eliminating food insecurity for homeless or near homeless individuals.

We invite you to participate in **an individual interview** and share your personal experiences of food insecurity, food deprivation and homelessness with us. Then you will discuss the meanings of the photographs, in order to provide an effective approach to meaningfully engage in the study.

The interview will last for about 45 to 90 minutes and will be arranged at a convenient date, location and time at the community agencies. We will audio-record this interview so that we can stay focused upon the conversation with you. The results of the study will be presented to families and close friends, community service providers and any interested community members

We would like to address that you will receive a 20\$ thank you gift for your participation. Your participation is completely voluntary, and you can make your decision as to whether or not you would like to participate. You have the right to participate or withdraw before any interview, or at any time during the study. We will respect the privacy of the information you provide us. Also, we will protect your identity by using a pseudonym or X label. We will use quotations from interviews and label them with pseudonyms. Your name will not appear in the reports, peer-reviewed journal articles or conference papers. Only the research team members will have access to tapes and transcripts stored securely at the offices of the Centre for Research in Social Justice and Policy, Laurentian University. If you will feel upset the interview will be stopped directly. Furthermore, you will be given a list of services (e.g. counselling and other services for poor and homeless people).

This study has been reviewed and received ethics approval by Research Ethics Board at Laurentian University. If you have any comments or concerns with this study, feel free to contact the Research Office, Laurentian University at: **705-675-1151 ext. 3213, 2436 or toll free at 1-800-461-4030 or email**

ethics@laurentian.ca

Should you require further information or clarification, please do not hesitate to contact the lead investigator Areej Al hamad, (aalhamad@laurentian.ca) at 705-675-1151, ext 5156 or

supervisor Dr. Carol Kauppi, (ckauppi@laurentian.ca). 705-675-1151 ext. 5058 ***Tel: 1-800-461-4030 ext. 5156***

Thank you for participating in the study.

Sincerely,

Ms. Areej Al hamad

Interdisciplinary PhD in Rural and Northern Health

Email: ***aalhamad@laurentian.ca***

Appendix D: Recruitment Poster



Laurentian University
Université Laurentienne

Recruitment Poster

PARTICIPANTS NEEDED FOR RESEARCH IN

Food Insecurity, Poverty and Homelessness: A Comparative Study Between Women in Northern and Southern Ontario

Needed: volunteers to take part in a study

You would be asked to: ***Attend interview***

Your participation would involve interview session, the session will be conducted at a participating organization. It will take about ***45 to 90*** minutes of your time.

In appreciation for your time, you will receive

refreshments and reimbursement of expenses.

For more information about this study, or to volunteer for this study, please contact:

Areej Al hamad

Interdisciplinary PhD in Rural and Northern Health, 705-988-4780

Email: aalhamad@laurentian.ca

Poverty, Homelessness and Migration, 705-675-1151, ext. 5025 homeless@laurentian.ca

Tel: 1-800-461-4030, ext. 5025

This study has been reviewed and received ethics approval by the Laurentian Research Ethics Board.

Appendix E: Individual Interview Guide



Study Title: Food Insecurity, Poverty and Homelessness: A Comparative Study Between Women in Northern and Southern Ontario

Researcher

Ms. Areej Alhamad, PhD student, Interdisciplinary PhD in Rural and Northern Health

Laurentian University

Dr. Carol Kauppi, Professor, School of Social Work, Laurentian University (Supervisor)

Do you mind telling me the initials of your first, middle and last name?

Initials _____ _____ _____
 F M L

(b) Gender _____

(c) Date of Birth _____ _____ _____
 D M Y

(d) What is your ethnicity or cultural heritage? _____

Anglophone _____

Francophone _____

First Nation - Do you have any Native heritage? Y/N _____

IF YES, please specify _____

Other _____

(e) Language - What language did you first learn? _____

Do you still understand this language? Y /N (Please Explain)

(f) Family/Marital Status-

Single _____

Married _____

Common Law _____

Divorced _____

Widowed _____

(g) Number of dependent child or children

Biological _____

Step-child _____

Foster _____

Adopted _____

(h) What are the ages of your dependent child or children?

(i) How far did you go in school? _____ (grade/level)

(j) What are your main sources of income?

Nature of Food Insecurity/Deprivation and Hunger

1. Tell me about your experiences of hunger and food deprivation and homelessness?

- a. Are you currently struggling to get enough food for yourself (and/or your family) or place to stay?
2. Do you get sufficient food to eat every day?
 - a. Do you worry about having enough food?
 - b. Do you worry about the quality of food that you eat every day?
 - c. Do you get to eat your preferred meal? How often?
 - d. How much variety do you have in your food?
 - e. Do you eat food that you do not wish to eat?
 - f. Do you skip meals?
 - g. Do you face a situation where there is no food to eat?
 - h. Do you run out of food?
 - i. Do you ever think about getting a balanced and healthy diet?

Circumstances surrounding Food Insecurity/Deprivation and Hunger

3. What are the reasons for the food deprivation, hunger and homelessness that you experience? Please elaborate.
4. Do you think your housing issue is connected with food insecurity? Please elaborate.

Response to Food Needs

5. How do you manage to get enough food every day?
 - a. What do you do to meet your food needs?
 - b. How many meals do you take every day?
 - c. Where do you take your meals?
 - d. Do you go for grocery shopping? Where? How often?

Community Resources and Solutions

- 6. Do you access community programs or resources to obtain food or shelters?
 - a. Can you please elaborate about your experiences with community programs and resources?
- 7. Do current food and housing-related community programs meet your food and housing needs?
- 8. What solutions would you like to suggest to meet your food and housing needs?

Debriefing

Those are all of my questions; the interview is over. You have been really helpful in agreeing to do the interview. How was it for you?

Are you feeling okay right now? Would you like to talk more about some of the things you mentioned in the interview?

Would you like to talk to someone else about some of the things you mentioned in the interview?

Do you know where you can go if you ever want to talk to someone? (i.e. an agency).

Give a copy of a list of services and phone numbers.

*Thank the participants and provide the \$20 thank you gift.

INTERVIEWER: -----

PLACE OF INTERVIEW: -----

DATE _____ / _____ / **TIME** _____ **am/pm**

Day month