

GENDERED PERSPECTIVES ON FOOD INSECURITY IN SASKATOON

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by

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ABSTRACT

Food insecurity is a growing problem in Canada including Saskatoon. How gender is linked to household food insecurity is largely unexplored. Therefore, this study examined the relationship between gender and food insecurity based on the lived experience of 11 heterosexual couples seeking food assistance or living on social assistance in Saskatoon. This study assessed their perceptions, attitudes and beliefs about food security, household resource management, coping strategies, and food shopping and preparation practices. Data were collected by interviewing 11 couples and ten key informants and analyzed using Giorgi's phenomenological approach. This study found food decision and grocery shopping were gendered. Female participants were involved more than their partners in decision-making about what food to buy and grocery shopping. Male participants viewed their partners more knowledgeable about food and shopping as feminine activity. Female participants felt more challenged than their spouses in grocery shopping and food preparation. There were no gender differences in other activities of household food management. Spouses supported each other and shared other household resources to manage food related activities. They held similar views about their household food situation and often agreed with each other about their household resources and the price, quality and type of food to buy. They bought foods that were affordable and nutritious. The food preferences of their family were accommodated where possible. They worked to ensure household food security. Food or money received from the Food Bank, CHEP and family were important in dealing with food insecurity. All participants and key informants agreed that food availability was not an issue but for some participants, affordability, access and time constraints were. Key informants and the participants suggested increasing support for families including more opportunities for income generation, increases in government welfare benefits, more

grocery stores, transport assistance, and nutrition knowledge and cooking skill. The findings suggest policies related to gender as well as programs to improve food security in Saskatoon.

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DEDICATION

Dedicated to my supervisor Dr. Shawna Berenbaum

TABLE OF CONTENTS

PERMISSION TO USE.....	i
ABSTRACT.....	ii
ACKNOWLEDGEMENTS	iv
DEDICATION.....	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF ABBREVIATIONS	xii
LIST OF DEFINITIONS	xiii
CHAPTER 1: INTRODUCTION.....	1
1.1 Statement of the Problem	1
1.2 Background to the problem	2
1.3 Purpose of study	4
1.4 Research questions	4
1.5 Scope of the study	4
1.6 Summary	5
CHAPTER 2: LITERATURE REVIEW	6
2.1 Introduction	6
2.2 Food security as a concept	6
2.3 Dimensions of food security	8
2.4 Levels of food security	9
2.4.1 Individual food security.....	10
2.4.2 Household food security.....	10
2.4.3 Community food security.....	11
2.5 Food insecurity	11
2.6 Why food security is a concern	14
2.7 Monitoring household food insecurity	15
2.8 Measurement of food security.....	16
2.9 Relationship to the social determinants of health.....	24
2.9.1 Income and social status.....	25
2.9.2 Social support networks.....	25

2.9.3 Education and literacy	27
2.9.4 Employment and working conditions.....	27
2.9.5 Social environments	28
2.9.6 Physical environment	28
2.9.7 Personal health practices and coping skills	28
2.9.8 Healthy child development.....	29
2.9.9 Biology and genetic endowment	29
2.9.10 Health services.....	30
2.9.11 Gender	30
2.9.12 Culture	30
2.10 Food security at the international, national, provincial and regional levels.....	31
2.10.1 Global - An overview of global food insecurity situation	31
2.10.2 National - Canada.....	31
2.10.3 Provincial - Saskatchewan.....	33
2.10.4 Regional - Saskatoon	34
2.11 Initiatives, programs and services to ensure food security and to address food insecurity.....	35
2.12 Gender issues.....	37
2.12.1 Gender differences in income in Canada.....	39
2.12.2 Common gender differences recognized worldwide	42
2.13 Household division of labour	43
2.14 Summary	44
CHAPTER 3: METHODOLOGY	45
3.1 Introduction	45
3.2 The researcher's story	45
3.3 Philosophical and theoretical framework.....	46
3.4 Study Population and Selection Process	48
3.5 Research participants and recruitment.....	48
3.6 Modification in selection criteria.....	49
3.7 Data Collection.....	50
3.8 Data analysis	54
3.9 Ethical approvals.....	61

CHAPTER 4: RESULTS AND DISCUSSION	63
4.1 Introduction	63
4.2 Description of target group	63
4.3 Themes	65
4.3.1 Theme 1 - Food decision-making was the domain of female participants.....	66
4.3.1.1 Male participants.....	68
4.3.1.2 Female participants	69
4.3.2 Theme 2 - Grocery shopping was the domain of female participants	69
4.3.2.1 Male participants.....	74
4.3.2.2 Female participants	74
4.3.3 Theme 3 - Cooking and related activities were shared.....	75
4.3.3.1 Male participants.....	77
4.3.3.2 Female participants	78
4.3.4 Theme 4 - Couples held similar views about their household food situation.....	79
4.3.4.1 Differences across households.....	84
4.3.4.1.1 Male participants.....	84
4.3.4.1.2 Female participants	85
4.3.4.2 Household food situations.....	85
4.3.4.2.1 Male participants	88
4.3.4.2.2 Female participants	88
4.3.5 Theme 5 - Female participants felt more challenged than their spouses.....	89
4.3.5.1 Challenges experienced by participants.....	93
4.3.5.1.1 Male participants.....	93
4.3.5.1.2 Female participants	93
4.3.5.2 Supports needed	94
4.3.5.2.1 Male participants.....	95
4.3.5.2.2 Female Participants	96
4.3.6 Theme 6 - Coping strategies.....	97
4.3.6.1 Male participants.....	99
4.3.6.2 Female participants	100
4.3.7 Theme 7 - Food affordability and accessibility as challenging.....	100

4.3.7.1 Food was available but accessibility varied.....	100
4.3.7.1.1 Male participants.....	104
4.3.7.1.2 Female participants.....	104
4.3.7.2 Food preferences.....	105
4.3.7.2.1 Male participants.....	108
4.3.7.2.2 Female participants.....	108
4.3.7.3 Variations in meal patterns.....	109
4.3.7.3.1 Male participants.....	110
4.3.7.3.2 Female participants.....	110
Theme 8 - Key informants worried about accessibility but not availability of food.....	111
4.4 Summary.....	116
CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS.....	117
5.1 Introduction.....	117
5.2 Theme discussion.....	117
5.3 Research Questions.....	120
5.4 Recommendations.....	127
5.5 Study limitations.....	129
5.6 Future research.....	130
5.7 Summary conclusion.....	131
REFERENCES.....	133
APPENDICES.....	161
Appendix A: Saskatoon local organizations for the Saskatoon Food Charter.....	161
Appendix B: Letter of invitation.....	165
Appendix C: Letter of invitation with logo.....	166
Appendix D: Sign-up sheet for many people.....	168
Appendix E: Sign-up sheet.....	169
Appendix F: Interview guide for key informants.....	170
Appendix G: Consent form for key informants.....	174
Appendix H: Interview guide for study population.....	177
Appendix I: Consent form for study population.....	184
Appendix J: Interpreter and translator confidentiality agreement.....	186

Appendix K: Transcript release form..... 187

LIST OF TABLES

Table 1: Number of People Assisted by Food Banks in Canada over the Years.....	3
Table 2 : Demographic profile of the study participants	64

LIST OF ABBREVIATIONS

CEO: Chief Executive Officer

CHEP: CHEP Good Food Inc. (a community-based organization in Saskatoon that promotes food security)

DC: Dietitians of Canada

ED: Executive Director

FAO: The Food and Agriculture Organization of the United Nations

IFAD: International Fund for Agricultural Development

OECD: Organization for Economic Cooperation and Development

PHAC: Public Health Agency of Canada

UNFPA: United Nations Population Fund

USSU: University of Saskatchewan Student Union

WFP: World Food Programme

WHO: World Health Organization

LIST OF DEFINITIONS

Attitude is the overall and persistent opinion that an individual holds about a certain person, object, or issue (Cacioppo, Petty, & Crites, 1994). In the current study, attitudes refer to the statements that describe how research participants think, believe, and feel about their household food situation.

Belief is information, true or false, that someone has about something or somebody (Cacioppo et al., 1994).

Coping strategies are the ways adopted by food insecure people to gain relief from hunger (Molnar, 1999).

Food insecurity is a situation in which ability to acquire or availability of safe, adequate and nutritious foods in ways appropriate in a society is unreliable or reduced (Oberholser & Tuttle, 2004).

Food security prevails when all individuals are physically and economically able to acquire at all times adequate, safe and nutritious food to fulfil their food requirements and choices for full and vigorous living (Food and Agriculture Organization [FAO], 2008a).

Gender is socially constructed roles and expectations assigned to men and women. Gender roles are not firm and vary with society, time and place and life stage (Phillips, 2005).

Gender balance is the parallel and full involvement of women and men in decision making, control and use of resources and services (FAO, 2015a).

Gender equality is achieved if both women and men have the same rights, opportunities and entitlements in their life (FAO, 2015a).

Gender equity is fair and impartial treatment to women and men regarding their rights, benefits, obligations and opportunities (FAO, 2015a).

Gender perspective focuses on examining how gender affects social roles, interactions, and opportunities for individuals (FAO, 1999).

Gender roles are socially determined duties, tasks and manners to individuals (FAO, 2015a).

Household denotes people living alone or in group in a private dwelling and do not typically maintain another residence in Canada (Statistics Canada, 2012).

Household food security is the ability of the household to obtain sufficient food for all members to satisfy their dietary needs (FAO, 2010).

Household resource management includes “decision-making, resource allocation, household consumption, and time management in the context of food security and economic development” (FAO, 2004, p. 24).

Opinion is a view, attitude or appraisal that an individual has about something (National Obesity Observatory, 2011).

Perception is the process of recognizing and interpreting of external stimuli (National Obesity Observatory, 2011).

Sex is biological characteristics of a person which normally remain unchanged throughout life (Phillips, 2005).

Social assistance is benefits provided to raise incomes to meet minimum levels as determined by law (TheFreeDictionary.com, n.d.). Social assistance includes payments to meet requirements for food, clothing and shelter (Canada Revenue Agency, 2015).

CHAPTER 1: INTRODUCTION

Food security aims to enable people to lead an active and healthy life. People are food secure when safe, adequate and nutritious food is available, affordable and consumed in a culturally acceptable manner maintaining human dignity. Food secure households have reliable access to sufficient and safe food for all members (Esterik, 1999). The concept of household food security includes social, economic, cultural and environmental factors that influence the outcome of household food security. When there is limited or uncertain availability or ability to access and consume foods, food insecurity exists (Tarasuk, 2005). When people are food insecure they worry about their food supply, make compromises in food quality and quantity, or may go hungry. Thus, food insecurity affects dietary intake and well-being.

1.1 Statement of the Problem

Food insecurity in Canada came to the fore in the early 1980s when communities started addressing the problem through food assistance programs (Tarasuk, 2005). Since then, Canada has been fighting food insecurity as indicated by the proliferation of food banks and food bank users despite growth in the economy (Tarasuk, Dachner, & Loopstra, 2014). Interventions to address the problem have been mainly based on providing a short-term supply of food to those in need on an ad-hoc basis by charitable agencies like food banks. Even with a sufficient food supply and robust economic development, Canada still has not achieved food security for all citizens (Rideout, Riches, Ostry, Buckingham, & MacRae, 2007). Rather, food insecurity is intensifying in Canada as demonstrated by the increasing usage of food banks (Roshanafshar & Hawkins, 2015). There is a need to develop alternative and sustainable responses to this problem.

The problem is complex and aggravated in many situations. Factors such as age, status, gender, income, geographic location, ethnic, or national affiliation may determine the severity of food insecurity (Canada's Action Plan for Food Security, 1998, p. 9-10). Economic, social, and cultural factors can limit food access by an individual or a household (Gittelsohn, Mookherji, & Pelto, n.d.). Individual food security can be precipitated by gender inequality (Canada's Action Plan for Food Security, 1998). Yet, food security does not appear to have been explored in much depth from the perspective of gender.

1.2 Background to the problem

Although Canada has a sufficient food supply (Che & Chen, 2002), many Canadians are food insecure. In 1998, approximately 10.2% of the Canadian population, or three million Canadians, were food insecure (Human Resources and Skills Development Canada, 2005). According to the 2007-2008 annual report of the Saskatoon Health Region (n.d.), the Saskatoon Food Bank helped 12,000 users every month. The Saskatoon Food Bank & Learning Centre provided food to about the same number of people five years later (Saskatoon Food Bank & Learning Centre, 2012a). Their hampers provide enough food for two to three days and can be accessed a maximum of twice a month (Saskatoon Food Bank & Learning Centre, 2012b).

The first food bank in Canada was established in 1981 (Riches, 2002), and today there are over 800 (Food Banks Canada, 2015a). The proliferation of food banks indicates persistence of the problem of food insecurity in the country. Food Banks Canada conducts a HungerCount survey every year in March to determine trends in food bank use. The report of HungerCount shows how many Canadians visited a food bank for help in March of that year. The table below presents the number of people assisted by Food Banks across Canada from 2008 to 2014.

Table 1: Number of People Assisted by Food Banks in Canada over the Years

Year	Numbers	Reference
2008	704,414	Food Banks Canada, HungerCount 2008
2009	794,738	Food Banks Canada, HungerCount 2009
2010	867,948	Food Banks Canada, HungerCount 2010
2011	851,014	Food Banks Canada, HungerCount 2011
2012	882,188	Food Banks Canada, HungerCount 2012
2013	833,098	Food Banks Canada, HungerCount 2013
2014	841,191	Food Banks Canada, HungerCount 2014

The table shows that for the last few years, food banks in Canada have been supporting more than 800,000 people every month. However, not all food insecure people go to food banks for help. Therefore, the figures present only a partial picture of the problem.

To ensure household food security, every individual member of the household should have access to sufficient, safe and nutritious food at all times. In addition to availability of food, factors such as physical and economic access, individual preferences, food allocation and gender inequality influence food security among family members. Access to and use of household resources is influenced by gender roles (Valdivia & Gille, 2001). Because of gender roles, men and women have different opportunities in terms of their access to resources, economic security, decision-making process and health status in the household and society (Ballantyne, 1999). Moreover, all members of a food insecure household do not experience the problem in the same way (Hamelin, Beaudry, & Habicht, 2002). Even in a food insecure household, not all members are necessarily food insecure (Che & Chen, 2002).

Since food insecurity is a multidimensional issue, it needs to be studied from different perspectives. It has been examined by focusing on household income adequacy, growth of young members, coping strategies and experiences, feelings and perceptions of food insecure

people (Wolfe & Frongillo, 2001). However, the influence of gender roles on food security has not been adequately explored. Food security will more likely be achieved when food issues are studied from a gender perspective, keeping women at the center of the issue in a policy context (Esterik, 1999). Thus, a holistic perspective is necessary to promote and protect the health of people (Vlassoff & Moreno, 2002).

1.3 Purpose of study

This study aimed to investigate the role of gender in influencing food security in Saskatoon households seeking food assistance from organizations and/or living on social assistance.

1.4 Research questions

What is the lived experience of food insecurity of a man and woman from the same household seeking food assistance and/or living on social assistance programs?

In these households, how does gender affect perceptions of food security, attitudes and beliefs about food security, household resource management, decision making, coping strategies, and food shopping and preparation practices?

1.5 Scope of the study

This study describes food issues in Saskatoon households from both a male and female perspective. The research participants were couples seeking food assistance or receiving social assistance in Saskatoon. This study aimed to explore the effect of the couple's gender roles on household food security. Addressing household food security with a gender lens may help create social conditions that will ensure good health for the entire community.

1.6 Summary

Household food security is necessary for the good health of all individual household members. A gendered perspective on food insecurity, as developed in this research, may help enhance our understanding of food security. The results could be used to inform programs, policies, and systems for building food security.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The concept of food security has developed significantly since the 1970s when the world faced a food crisis (FAO, 2003). Initially, it was considered a problem of insufficient and unstable food production and the main thrust was placed on supplies of food at national and global scales. It was assumed that people were food secure if the food supply was adequate. Later, food production increased but still people were food insecure. Then, food distribution was considered a problem to achieve food security. Now, the world has enough food to feed everyone, but over 842 million people are deprived of food around the world in 2012-2013 (FAO, IFAD and WFP, 2013). Therefore, improved food supply does not guarantee access to food by all in a society (Iram & Butt, 2004). From the 1980s, the attention changed to focus at the micro levels like household and individual scales (Maxwell & Smith, n.d.). Many people were still unable to afford food in a world that had food surpluses. In addition to an assured food supply, people must have access, financial and otherwise for a healthy active life in order to be food secure.

2.2 Food security as a concept

Food security is a concept that is multi-faceted (FAO, 2003), complex and multidimensional (World Food Program, 2005). It carries different meanings at the global, national, community, household and individual levels (Dietitians of Canada, n. d.). On the one hand, it means availability of sufficient supply of food at global and national levels. On the other hand, it is related with proper nutrition and well-being at the individual level (FAO, 2003). There have been many attempts to define food security. It is described in many ways and there are about 200 definitions and 450 indicators (Hoddinott, 1999). The concept of food security

now includes elements such as access, vulnerability, sustainability, food availability, stability of the food supply, adequacy and utilization (Weingärtner, 2004) and environmental, economic and cultural factors.

The FAO (2003) has described the development of the concept at different times by different bodies. The World Food Summit 1974 defined food security as “availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices” (FAO, 2003, p.27). At that time the focus was on the food supply and not on access. Later, in 1983, the FAO advanced the concept by including secure access to food by people at risk emphasizing balance between the demand and the supply of food and stated “ensuring that all people at all times have both physical and economic access to the basic food that they need” (p. 27). Here economic access by vulnerable people is stressed. In addition to the FAO, the World Bank also expanded the concept. In 1986, the World Bank, in its report *Poverty and Hunger*, included food adequacy as “access of all people at all times to enough food for an active, healthy life” (p. 1). The report also distinguished between chronic food insecurity and transitory food insecurity (World Bank, 1986). Chronic and transitory food insecurity are temporal dimensions of food insecurity, having long-term and short-term durations. A household may experience both the conditions at different time periods (Jones, Ngure, Pelto, & Young, 2013).

The definition of food security set at the World Food Summit in 1996 has been widely accepted (FAO, 2006). The summit recognized that “food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle” (FAO, 2008a, p.1). The refinement in the definition shows that emphasis moved away from the supply side to the

demand side, that is, on access to food and its consumption. In fact, food security now focuses on the nutritional status of individuals. More specifically, food security can be understood as the condition in which people have access at all times to safe and nutritionally adequate foods in a culturally acceptable manner (Campbell, 1991). For a healthy and active life diet must be adequate in terms of both quantity and quality and provide the required amounts of energy and nutrients (Campbell, 1991).

Food security is also defined in terms of energy requirement. According to Meade and Stacey (2013), food security is defined as “allowing individuals to reach a nutritional target of 2,100 calories per capita per day” (p. 2). The World Food Program (2006) has defined food security in different categories based on calorie consumption. These are:

- **Food Secure** - if daily calorie consumption is consistently above 2,100 kcal
- **Mildly Food Insecure** - if daily calorie consumption is between 1,800 to 2,100 kcal
- **Moderate Food Insecure** - if daily calorie consumption is between 1,500 to 1,800 kcal
- **Severely Food Insecure** - if daily calorie consumption is less than 1,500 kcal

2.3 Dimensions of food security

Different dimensions of food security have been described. FAO (2008a) described four dimensions of food security:

Food availability: The physical availability of food at all times is the basic requirement of food security. Therefore, food availability addresses the supply side of food security. The supply may come from production or imports.

Food access: The availability of food does not necessarily mean that all people can access food. Therefore, economic and physical access to food is another aspect of food security.

Food Utilization: “Utilization is commonly understood as the way the body makes the most of various nutrients in the food” (p. 1). Adequate energy and nutrient intake from a wide variety of food is necessary for nutritional well-being. Food utilization is to metabolise nutrients in the body and is dependent on the health status of the individual.

Stability: To be food secure, the other three dimensions of food security must be fulfilled at all times. Moreover, there should not be a threat to lose access to food. The risk may result from economic, political or climatic change.

To achieve food security these four dimensions must be fulfilled at the same time. In addition, the ability to acquire food in socially and culturally acceptable ways is an important element of food security (Jones et al., 2013).

2.4 Levels of food security

The 1996 World Food Summit used a multifaceted definition of food security and has recognized food security at the individual, household, national, regional and global levels (FAO, 2003). The Dietitians of Canada (2005) has described the nature of food insecurity as consumption of insufficient and unsuitable food at the individual level and an issue concerning acquisition and supply of food at the household level. Food insecurity at the individual level is further characterized by anxiety and compromises in quality and quantity as the situation worsens (Dietitians of Canada, 2005).

Radimer, Olson, Greene, Campbell and Habicht (1992) compared the dimensions of food insecurity at the individual and household level and how the four dimensions of food insecurity are experienced and manifested at these two levels. They found that when food was inadequate, individuals were concerned about insufficient food consumption but at the household level food supply was the issue. Food security at the individual level can be interpreted as being able to consume enough food and at the household level being able to purchase enough food. Regarding food quality, individuals perceived that their food was nutritionally inadequate but for the households, food was unsuitable for consumption. Likewise, the psychological dimension of food security at the individual level was described as lack of choice while the same at household level as food anxiety. The social dimension of food insecurity was described as disrupted eating patterns at the individual level and food acquisition by socially unacceptable means at the household level (Radimer et al., 1992).

2.4.1 Individual food security

According to Radimer et al. (1992), food insecurity at the individual level is characterized by nutritional inadequacy, insufficient intake, lack of choice and feelings of deprivation and disrupted eating patterns. Food security for an individual can be understood as consistent access to and regular consumption of sufficient, nutritious, and a variety of food by an individual for an active healthy life.

2.4.2 Household food security

Household food security is “the application of the food security concept to the family level, with individuals within households as the focus of concern” (FAO, 2009, p. 8). According to FAO (2010), households are food secure when they have year-round access to the amount and variety of safe foods their members need to lead active and healthy lives. At the household level,

food security refers to the “ability of the household to secure, either from its own production or through purchases, adequate food for meeting the dietary needs of all members of the household” (para.1). Household food security can be understood as the ability of a household to meet dietary and nutrient requirements of all members in a culturally appropriate manner throughout the year.

2.4.3 Community food security

Hamm and Bellows (2003) defined community food security (CFS) as “a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice” (p. 37). The Dietitians of Canada (2015) has recommended the development of food systems that produce safe and nutritious food grown in a way that is sustainable and allows communities to be self-reliant. Moreover, food should be affordable so that people have food choices. In this way, a community can be more food secure.

There have been many approaches to strengthening community food security. Community-supported Agriculture (CSA) links growers and consumers together. The consumers pay the farmer monthly or weekly and share the harvest as well as the risk of crop failure if it happens (Engler-Stringer & Harder, 2011). Other community approaches include Community Gardens and Community Kitchens. Participants in these programs pool their resources such as time, labour, tools, supplies and skill. In community gardens participants have a common garden to grow food and in community kitchens they prepare one or more meals to share (Howard & Edge, 2013).

2.5 Food insecurity

Food insecurity exists whenever “the availability of nutritionally adequate and safe foods or the ability to acquire foods in socially acceptable ways is limited or uncertain” (Oberholser &

Tuttle, 2004, p.790). Health Canada (2012a) has classified households into three categories based on the experience of the household: (a) food secure; (b) food insecure, moderate; and (c) food insecure, severe. Households are described as moderately food insecure if they compromise quality or quantity of food and severely food insecure if the food intake is reduced or the food pattern is disrupted.

Vulnerable household. A household becomes vulnerable to food insecurity if the household loses its ability to acquire adequate food. According to the FAO (2003), “vulnerability refers to the full range of factors that place people at risk of becoming food insecure. The degree of vulnerability of an individual, household or group of persons is determined by their exposure to risk factors and their ability to cope with or withstand stressful situations” (p. 9). FAO (2003) has divided vulnerable households into three groups: (a) those who would be vulnerable under any circumstances: in these households the situation arises if the adults, due to their age, illness, disability or for other reasons, are unable to have an adequate income for the household; (b) those which lack sufficient income; and (c) those which would be vulnerable in case of social and economic shocks such as rapid changes in economic activity due to a policy or the high price of foods.

People are vulnerable to food insecurity if they have limited capacity and inadequate resources to buy or access food. In Canada, Aboriginal people, single mothers and their children, new immigrants, high school dropouts, persons with disabilities or illness or difficulties using social services, and the homeless or socially isolated are more vulnerable to food insecurity (Agriculture and Agri-Food Canada, 1999). Moreover, people on social assistance, people living in rental housing, the working poor, unskilled and semi-skilled workers, individuals with mental

illness and addictions, and teenage parents are also vulnerable to food insecurity (Tsang, Holt, & Azevedo, 2011).

Chronic and transitory food insecurity. Food insecurity is dynamic and two general types of food insecurity, chronic and transitory, have been identified (FAO, 2008a). Structural or chronic food insecurity is long-term and exists when people cannot satisfy their food requirements for a long period of time. It usually arises from perpetual poverty and lack or inadequate opportunity to access resources. Hence it is structural in character as the ability of the household to sufficiently access food is hampered persistently. Transitory food insecurity is temporary, short-term, and occurs if the capacity to produce or access enough food is reduced. It may result from transitory variations in availability and access to food (FAO, 2008a). Natural (flood, drought, hurricane, earthquake, tsunami) or man-made (war, conflict) disasters can make people vulnerable to transitory food security.

The World Food Program (2009) has described the temporal dimensions of food insecurity and the cut-off point to distinguish between chronic and transitory food insecurity. Chronic food insecurity is long-term or persistent inability to meet dietary requirements for at least six months of the year. Transitory or acute food insecurity is a short-term or temporary inability. The program has also identified another form of temporary food insecurity, that is, seasonal or cyclical food insecurity. If the temporary food insecurity is repeated or continues it may lead to chronic food insecurity. The distinction between chronic and transitory food insecurity is important because different types of responses are required to address the issue. According to the World Food Program, chronic food insecurity requires “interventions that address underlying and basic causes of food insecurity and that last for several years” (p. 2) and

transitory food insecurity may require “shorter-term interventions that address immediate and underlying causes” (p. 2).

2.6 Why food security is a concern

Food security is a concern for many reasons. Food is a human right (Haddad & Oshaug, 1998) as well as a matter of health (Health Canada, 2004). In the Canadian context, food insecurity has been accepted as a public health problem (Vozoris & Tarasuk, 2003). Food insecurity leads to deleterious health consequences. Studies show that suffering from food insecurity and hunger has been associated with poor physical and mental health status (Oberholser & Tuttle, 2004). Members of food insecure households are more likely to have poor health and social supports. They not only are more likely to suffer from depression and distress but also to have multiple chronic conditions like heart disease, diabetes and elevated blood pressure (Vozoris & Tarasuk, 2003). Therefore, it is a major issue in many developing and developed countries (Tarasuk & Beaton, 1999b).

Food security has been recognized as a key determinant of health (Engler-Stringer & Berenbaum, 2007; Rideout, Seed, & Ostry, 2006). In addition to being a public health issue, it is also a social, economic and environmental issue (World Health Organization, n.d.). Health Canada (2007), in *The Canadian Community Health Survey Cycle 2.2, Nutrition (2004): Income-Related Household Food Security in Canada*, has reported that in Canada, food security is a public health issue associated with income and is a significant social determinant of health. In any community, food related problems threaten health in that population.

Researchers have tried to understand the causes of food insecurity. Klennert (n.d.) stated that “90 % of the world’s hungry people suffer from chronic food and nutrition insecurity as a

result of structural deficits within their own countries and not because of an acute food shortage due to manmade or natural calamities” (p. i). According to Rideout et al. (2007), food security in Canada did not improve and social safety nets were unsuccessful, despite Canada’s robust economic development in the past decade. They stated that separation of food, nutrition, agriculture and trade policies is a threat to food security.

According to the FAO, there were 923 million hungry people in the world in 2007 (FAO, 2008b) and the number of undernourished people in 2015 has been estimated at 795 million (FAO, IFAD and WFP, 2015). It is estimated that every day 35,000 people die from hunger and numerous people suffer from malnutrition in the world (The Ontario Healthy Communities Coalition, 2006). Klennert (n.d.) provides the following worldwide statistics:

- Every year nearly 40 million people die of hunger and its consequences.
- Over 40% of the world’s population is affected by micronutrient deficiencies.
- Approximately 2 billion people, especially women, suffer from iron deficiency.
- Vitamin A deficiency affects about 230 million children.

Canada has only been monitoring food security since 2004 (Che & Chen, 2002; Vozoris & Tarasuk, 2003), prior to that the extent of household food insecurity in Canada was indicated by the number of Canadians visiting food banks and other food assistance programs (Tarasuk, Mitchell, & Dachner, 2013). The establishment and institutionalisation of food banks and other food assistance programs suggest that the problem is not addressed effectively in Canada.

2.7 Monitoring household food insecurity

In Canada, household food insecurity is monitored by the Canadian Community Health Survey (CCHS). This initiative began in 2000 when Health Canada, the Public Health Agency

of Canada, Statistics Canada, and the Canadian Institute for Health Information (CIHI) came together to collect health-related data. In 2004, a national survey specifically on nutrition was conducted - the CCHS - Cycle 2.2, Nutrition (2004). This survey included information on many areas of nutrition including household food insecurity (Health Canada, 2012b). In addition, Food Banks Canada, an organization that represents the Canadian food bank community, conducts HungerCount surveys annually to study food bank use in Canada.

2.8 Measurement of food security

Measurement of food security is challenging because of its multidimensional nature, that is, aspects of availability, access, and utilization should all be included (Ivers & Cullen, 2011). Hundreds of indicators are used to measure food security going from computing food supplies at the country level to nutritional outcomes at individual level and from objective indicators to subjective perceptions (Cafiero, Melgar-Quiñonez, Ballard, & Kepple, 2014). Moreover, it is measured at different levels and needs different tools. Some measurements such as the household food survey assess food consumption at the household level while anthropometry assesses nutritional outcomes in individuals. The tools used in measurement each have their strengths and weaknesses and can produce estimates that may vary considerably (Ivers & Cullen, 2011). De Haen, Klasen, and Qaim (2011) stated that the different indicators used to measure food insecurity produced different results in the same country at the same time.

Jones et al. (2013) have presented a comprehensive list of approaches and tools for measuring food security. They suggested choosing appropriate food security indicators based on the following factors: (a) the components of food security they are intended to measure (e.g., availability, access, use, stability), (b) the type of data suitable to the context, (c) how the data will be used, (d) how often the data will be collected, (e) the scale of measurement being used

(e.g., national, regional, household, individual), and (f) the resources available for data collection, analysis and use.

Pérez-Escamilla and Segall-Corrêa (2008) have described five commonly used methods for measuring food security at the national, community, household or individual levels. The methods include indirect as well as direct measures of food insecurity. The indirect methods include the United Nations Food and Agriculture Organization method, household expenditure surveys, dietary intake assessment and anthropometry. The Food and Agriculture Organization method uses the Food Balance Sheets to estimate calories available *per capita* at the country level. The direct method is based on experience-based food insecurity scales. These methods to assess food insecurity complement each other and the authors stated that the researcher selects the method that answers his or her question.

National level. A country is said to be food secure if it can produce enough food or is able to import the food required to meet the food needs of the people. Initially, “the term “food security” was used to describe whether a country had access to enough food to meet dietary energy requirements” (Pinstrup-Andersen, 2009). So, at the national level, the focus was on the food supply.

Pérez-Escamilla and Segall-Corrêa (2008) have described that the FAO method estimates “calories per capita at the country level using Food Balance Sheets and energy intake variance data derived from household income and expenditure surveys” (p. 17). Food balance sheets show how much of each food commodity a country produces, imports, and withdraws from stocks for other, non-food purposes. To calculate the average amount of food available for human consumption, all the food available for human consumption is divided by the total

population (World Health Organization, 2010). A major advantage of this method is that data are readily available at low-cost but this method does not consider the quality of diet. It also fails to identify households or individuals at risk.

The other indices used to measure one or more aspects of food security at the country level include the Global Hunger Index (GHI) and the Global Food Security Index (GFSI) (Jones, et al., 2013). The GHI aims to measure “hunger” using 3 equally weighted indicators: 1) undernourishment, 2) child underweight, and 3) child mortality. Based on GHI, countries are ranked on a 100-point scale and categorized as having “low” to “extremely alarming” hunger. The GFSI measures country-level trends in food security based on 30 indicators of food security. The GFSI indicators assess affordability, availability, and quality and safety, the three domains of food security (Jones et al., 2013)

Community level. The food system includes activities and policies from production to consumption. Therefore, a wide variety of indicators is needed to measure different aspects of the food system (Provincial Health Services Authority, 2009). The selection of indicators depends on what is required to know of the system. There are many indicators and some are listed below (Provincial Health Services Authority, 2009).

1. Environmental scan indicators: include (a) demographic indicators, (b) economic indicators, (c) composite index of economic hardship, (d) unemployment rates, (e) social assistance rates, (f) housing stress (percentage of households that spend more than 30% of their income on shelter), (g) number of homeless people
2. Health-related indicators: include (a) percent of the population that is food insecure, (b) mortality from diet-related disease, (c) rates of obesity/overweight, (d) percent of the population that consumes 5 or more fruits and vegetables a day, (e) percent low

birthweight, (f) prevalence of dietary-related disease (for example, diabetes), (g) health status of Aboriginal communities

3. Community food production: includes data such as (a) food access and distribution networks, (b) number of food wholesalers, retailers and restaurants, (c) number of grocery stores or fast food outlets per capita, (d) existence of food deserts and other barriers to accessing grocery stores, (e) location of supermarkets and convenience stores in a community, (f) percentage of population that is within walking distance (450 meters) of a large grocery store or of public transportation that will take them to a large grocery store, (g) distribution of fast food outlets (including convenience stores) and relation to low-income neighbourhoods, (h) location of large and other grocery stores relative to public transportation routes, (i) number of farmers markets, (j) cost of a nutritious food basket, number of charitable food resources and number per capita low-income: food banks, soup kitchens, shelters with meals, (l) number of community kitchens, (m) number of people who use charitable food resources on a monthly basis
4. Social/cultural indicators: include (a) availability, accessibility and acceptability of food resources within a neighborhood or other community (communities may be geographical or based on a shared identity), (b) values placed on healthy eating, nutrition and food buying habits, (c) availability of culturally relevant and/or traditional food
5. Local food indicators: include (a) distance that food travels from farm to fork and associated greenhouse gas emissions, (b) the ability of local agriculture to meet the nutritional needs of residents, (c) the percentage of food consumed in the region that is grown or processed in the region, (d) availability of local compared to conventional produce in retail stores, (e) price of local produce compared to imported food

6. Food Policy Indicators: include (a) percentage of organizations and communities that have implemented healthy food policies, (b) percentage of hospitals, long term care and schools districts with a healthy food policy, (c) percentage of communities with intersectoral food councils, (d) percentage of communities with a food security needs and assets assessment

Household level. At the household level, measuring food insecurity is challenging because of the multidimensional nature of the phenomenon. Therefore, several indicators are used to examine food security status (Cunningham, 2005). It has also been measured indirectly by examining poverty.

According to Jones et al. (2013), data from Household Consumption and Expenditure Surveys (HCESs) are useful to measure household food acquisition. The surveys take into account money spent on food but not the quantity of food purchased or consumed. Moreover, these measures cannot reveal how food is distributed in the family. However, HCESs estimate caloric intake per capita per household and identify households at risk (Pérez-Escamilla & Segall-Corrêa, 2008). This method is also expensive and measures availability of food but not necessarily food consumed at or away from home.

Individual level. The individual's dietary intake can be measured in many ways such as (a) 24-hour recall (b) food frequency questionnaires and (c) food records kept by individuals or by an observer (Pérez-Escamilla & Segall-Corrêa, 2008). The individual dietary intake method is more analytical as it directly measures the actual amount and quality of food consumed. It also tells about individuals at risk in the households. However, the accuracy of the first two methods depends upon the memory of respondents so there is risk of memory recall bias.

Anthropometric measures are used at the individual level. Pérez-Escamilla and Segall-Corrêa (2008) define anthropometry “as the measurement of size, weight, body proportions and ultimately the composition of the human body” (p. 20). In anthropometry, information about nutritional status is obtained by measurements of weight and height of individuals. The results of anthropometric measurements are based on standard cut-off points. Anthropometric indicators are used in children and adults but not in adolescents because of the changing effect of puberty (Cunningham, 2005).

The common anthropometric measures used to monitor nutritional status in children under five are stunting and wasting. Stunting means low height for age and indicates stunted growth. It is regarded as a sign of chronic food insecurity (World Food Program, 2009). Wasting, the indicator for weight for height, measures recent weight loss usually due to starvation and/or disease (World Food Programme, 2014). Wasting is regarded as a sign of transitory food insecurity (World Food Program, 2009). Alternatively, mid-upper arm circumference (MUAC) can be used as an indicator of transitory food insecurity.

One indicator for adults is body mass index (BMI). World Health Organization (2010) has defined BMI “as the weight in kilograms divided by the square of the height in metres (kg/m²)” (p. 3). A BMI less than 18.5 indicates underweight, BMI 18.5-24.9 indicates normal weight, BMI more than 25.0 indicates overweight and BMI more than 30.0 indicates obesity.

Researchers employ proxy measures to capture different components of food security (Barrett, 2010). Poor growth in children and night blindness and anemia may be used as proxies for food insecurity (Reinhard & Wijayarathne, 2002).

Anthropometric measures are a good indicator of food intake (Shetty, n.d.). However, it is better to use anthropometric data with other indicators to measure nutritional outcomes in individuals because the nutritional status of an individual not only depends on food intake but also on health status of the individual. Moreover, parents may sacrifice their food to feed their children if necessary. Therefore, child nutritional status determined by anthropometric measures may not reflect the food insecurity of the household. Anthropometric measurements usually generate information on past nutritional status and may not reflect current nutrition status and hence may not be useful to identify people at risk of food insecurity especially in the obese adult population. Cunningham (2005) suggested that “anthropometric indicators are status indicators and therefore do not indicate changes in the nutritional status of population or the most vulnerable groups” (p. 10). A disadvantage of food security measures obtained from household and individual data is that these measures usually provide higher estimates of food insecurity compared to those obtained from more aggregate data (Barrett, 2010).

Qualitative research methods based on the perceptions or experiences of the individuals experiencing food insecurity are used by researchers for direct measurements of food insecurity (Bashir & Schilizzi, 2012). Subjective assessments of food insecurity are suitable in a country where food is abundant (Rose & Charlton, 2001) for example, Canada. The Household Food Security Survey Module (HFSSM), developed by the US Department of Agriculture, is a tool to measure household food insecurity (Health Canada, 2012c) and has been used in Canada since 2004. The module asks 18 questions to assess the food security status of the household in the past 12 months. The HFSSM has two scales, an adult scale and a child scale, to capture the experiences of adults and children. Out of 18 questions, 10 are for adult members and eight are for children 18 years and younger. The main advantage of this method is that it measures the

phenomenon directly based on the experience of the affected individuals but being a household measure the HFSSM cannot determine the food security status of individuals in the household. Depending on the response, the households are categorised as either food secure or as food insecure. This module was included in Canadian national surveys, such as the Canadian Community Health Survey (CCHS) and the 2010 cycle of the Survey of Household Spending (SHS) (Health Canada, 2012d).

Canada conducted the Nutrition Canada Survey, its first national nutrition survey, in 1970-1972. The survey was supposed to be longitudinal but was never done again (McAmmond & Associates, 2000). Data on food insecurity are collected usually during national or household surveys which are typically cross sectional surveys. For example, the CCHS, a survey administered by Statistics Canada, may contain some information about food and nutrition but *the CCHS, Cycle 2.2, Nutrition (2004): Income-Related Household Food Security in Canada*, the first national nutrition survey after the Nutrition Canada survey of 1970-1972, provides “for the first time in Canada, national and provincial estimates of income-related food security at the household, adult and child level based on a standard multiple-indicator measure of food security” (Health Canada, 2008, para.1). The CCHS collects data from a representative sample. However, it excludes some individuals such as those who work full-time in the armed forces, live on reserves, are in prisons and care facilities, or are homeless. People living on reserves and the homeless represent a tiny percentage of the total Canadian population but are very vulnerable to food insecurity. Their omission in the survey underestimates the true prevalence of food insecurity in Canada (Tarasuk et al., 2013).

According to Statistics Canada (2013), 8.3% of households in Canada encountered food insecurity during 2011-2012. The rate remained stable between 2007 and 2012 (Roshanafshar &

Hawkins, 2015). In 2012, the prevalence of food insecurity was more widespread in the North and the Maritimes. In comparison to rural areas, food insecurity was more prevalent in urban areas. Among Canadian cities, Halifax was the most food insecure city in 2011-2012 and Sherbrooke, Quebec City, Hamilton and Greater Sudbury had the lowest rates of food insecurity (Tarasuk et al., 2013).

Food security is a broad concept and its measurement at household and national levels differs. Some of the methods look at “the determinants (i.e., dietary intake, food expenditures), while others measure the consequences of food insecurity (i.e., anthropometry)” (Pérez-Escamilla & Segall-Corrêa, 2008, p. 25). Thus, the methods complement each other.

2.9 Relationship to the social determinants of health

Food security is a complex issue related to health, development, economy, environment and trade (World Health Organization, 2014a). It is also considered a social determinant of health and is related to the other social determinants of health (McIntyre, 2003).

Several factors determine health such as social, economic, environmental factors and individual behavior. These factors are referred to as the determinants of health (Public Health Agency of Canada, 2011). Factors such as the socioeconomic environments in which people live, their genetics, education level, and relationships with their friends and families have greater influence on health than “factors such as access and use of health care services” (World Health Organization, 2014b, para. 1).

The Public Health Agency of Canada (2011) describes twelve determinants of health: (a) income and social status, (b) social support networks, (c) education, (d) employment and working conditions, (e) social environments, (f) physical environments, (g) personal health

practices and coping skills, (h) healthy child development, (i) biology and genetic endowment, (j) health services, (k) gender, and (l) culture. These determinants alone or in combination help people make and stay healthy. An overview of the ways these influence health is given below.

2.9.1 Income and social status

The two most important determinants of health are social and economic status of an individual (Public Health Agency of Canada, 2013). Evidence suggests that the higher social and economic status that an individual attains the better health he or she has. Because of better income and social status, he or she may have better access to resources and greater ability to manipulate their life circumstances than people with less income or of lower social status. Income is an important determinant of food security (Dietitians of Canada, n.d.). People with higher incomes can better afford food and hence are more likely to be food secure than those who have lower incomes. Income plays a major role not only in affordability but also in access to food. Higher incomes may also enable people live in better quality housing. These factors have a substantial impact on food security.

2.9.2 Social support networks

Social and physical environments influence health of the people. Social relationships can help people achieve better health. Friends and relatives can provide emotional support, financial support and other help (Umberson & Montez, 2010).

Social safety nets in Canada. According to Ruelle and Rockmore (2011), safety nets are “a key form of social protection, which includes any public actions to support poor and vulnerable persons and increase their ability to manage risk” (para. 1). Safety nets may include cash, vouchers, food, or other goods or some combination of these. In Canada, there are several

social welfare benefits available to some segments of the population including subsidized family allowances, childcare, unemployment insurance, social assistance and disability benefits and supports, and home care (Mikkonen & Raphael, 2010). In addition, all Canadians have universal health care and all seniors have access to government subsidized pensions. In addition to financial benefits, social safety nets also include services such as counseling, employment training and community services (Mikkonen & Raphael, 2010). Canada has an Employment Insurance (EI) program to help offset the financial constraints faced by Canadians in the event of unemployment. However, Osberg (2009) stated that EI benefits are inadequate. Changes in eligibility criteria have reduced the number of people eligible to receive EI benefits (Mikkonen & Raphael, 2010).

Canadians may receive financial help from the federal and provincial governments if they cannot meet their basic needs. Tarasuk, Dachner, and Loopstra (2014) have stated that in order to meet basic needs social assistance are given to working-aged adults in Canada. Social assistance includes two types of programs; income assistance program for those who for medical reasons are not able to work in life forever and welfare, the income support program, available for those in desperate circumstances. There is the federal Canada Child Tax Benefit for children's benefit. The level of support provided by the social assistance is inadequate because 68% of Canadian households on social assistance and 33.7% on EI were food insecure in 2013 (Tarasuk, Mitchell, Dachner, 2015). In Saskatchewan, Government of Saskatchewan has designed the Saskatchewan Assistance Program to provide financial help for Saskatchewan residents if they need to. The benefits vary by the size of family, family income and needs and location of residence.

Food aid services. In the last two decades, North America, Europe, Australia and New Zealand have seen the rise of charitable food banks to help hungry or food insecure people (Riches, 2002). The first food bank in Canada was established in Edmonton, Alberta in 1981 and by March 1989 there was a 90% increase in use (Riches, 2002). In 2001, 2.4% Canadians obtained support from food banks (Riches, 2002). The rise in number of food bank visitors indicated not only that household food insecurity in Canada persists (Vozoris & Tarasuk, 2003) but is also increasing (Tarasuk, 2005).

In Canada, food banks were initially set up to address hunger issues of individuals and families affected by unemployment, underemployment and or inadequate or inaccessible social policies and programs. Their use has increased ever since (Tarasuk & Beaton, 1999a). In Canada, food banks have become institutionalized and are an integral part of society (Riches, 2002). But food banks or other charitable supply channels of food are not a socially acceptable way of acquiring food (Riches, 2002).

2.9.3 Education and literacy

Education is associated with the socioeconomic status of an individual as educated people have more opportunities for better employment. Higher incomes may increase the affordability of food. People with higher education levels are more likely to be healthier (Mikkonen & Raphael, 2010). Education also impacts health behaviours (Suhrcke & de Paz Nieves, 2011).

2.9.4 Employment and working conditions

Job satisfaction contributes to health (Fischer & Sousa-Poza, 2009). Those who have control over work circumstances are healthier than those who are unemployed, underemployed or work in stressful or unsafe conditions. Employment generates income while unemployment

often leads to poverty. Income helps achieve food security. Working in an unsafe environment or under stress may put health and safety of employees at risk. Low income and poor health make individuals susceptible to food insecurity.

2.9.5 Social environments

Social norms, values, behaviour and resources influence the health and well-being of individuals and society (Public Health Agency of Canada, 2011). These are crucial in leading a healthy lifestyle. Marginalized people in a society often have limited access to social, cultural and economic resources (Mikkonen & Raphael, 2010). As a result, they might have few opportunities to participate in social activities, acquire education and find employment. Their well-being may be negatively affected and they may be at risk for food insecurity. Food security exists if food is obtained in a way that is accepted in the society. Social stability and safety are conditions required to support reliable access to food.

2.9.6 Physical environment

Factors like water and air quality, housing and workplace environment, communities and roads each influence health (Public Health Agency of Canada, 2011). Good housing provides the conditions for a healthy life. According to Krieger and Higgins (2002), poor housing conditions like overcrowding contribute to some diseases such as Tuberculosis and lack of clean water and sanitation may cause other health problems. Lack of food stores in the neighbourhood or access to them can be a significant barrier to food security.

2.9.7 Personal health practices and coping skills

According to the Public Health Agency of Canada (2013), personal health practices and coping skills are “actions by which individuals can prevent diseases and promote self-care, cope

with challenges, and develop self-reliance, solve problems and make choices that enhance health” (para. 22). Health is affected by the way people make their food choices, do physical activity, and deal with stresses and challenges.

People may use a number of strategies to cope with food insecurity. McIntyre, Bartoo, Pow, and Potestio (2012) have categorized coping strategies as intra-household such as reduced variety and quantity of food and external to household such as use of food banks, seeking help from friends and relatives and school meal programs. Within a household, depending on the severity of food insecurity experienced, it may vary from eating less than usual or skipping one meal to going without food for the day. Mothers may choose to feed their children first by compromising their own food intake (McIntyre et al., 2003). Other strategies used include spending less money on food, purchasing food on sale, buying in bulk, delaying paying bills, borrowing, pawning, and seeking assistance for food (Kempson, Keenan, Sadani, & Adler, 2003).

2.9.8 Healthy child development

Early child development is recognized as an important determinant of health. Food insecurity may be associated with poor mental and physical health and academic performance in children (Jyoti, Frongillo, & Jones, 2005). Childhood food habits and experiences shape the food practices followed in later life.

2.9.9 Biology and genetic endowment

Some diseases can be inherited whereas some individuals become susceptible to certain diseases because of a change in their genetic make-up (mutation). Health of an individual is affected by his or her behaviour towards being active, eating healthily and dealing with stresses

and challenges (World Health Organization, 2015). In certain circumstances, people may be exposed to conditions that may support or weaken their ability to be food secure. Food allergy, lactose intolerance, and gluten allergy are some of the conditions that may make people vulnerable to food insecurity. Safe foods for people with allergies may not be available at all or available in a limited amount. These foods are often sold at higher price than gluten-containing products (Stevens, & Rashid, 2008).

2.9.10 Health services

Health services available to people and their use determine their health (World Health Organization, 2015). Good health depends on proper utilization of healthcare services. The health and well-being of an individual is important not only to access food but also to proper utilization of food in the body. For example, diarrhea causes loss of fluids and reduces intake of food and absorption of nutrients and hence contributes to malnutrition (World Health Organization, 2013).

2.9.11 Gender

According to the Public Health Agency of Canada (2011), gender includes a range of characteristics such as social status or roles, behaviours, values, and the power men and women are assigned in a society. Men and women often have different income and education levels. As a result, they may have differing ability to afford and access food. Gender equality is the “single most important determinant of food security” (Asian Development Bank, 2013). More discussion on gender issues can be found in 2.12.

2.9.12 Culture

Customs, beliefs and traditions of people affect their health (World Health Organization, 2015). These factors influence their decisions about how to lead their lives and use what is available to them. They determine their decisions about food such as how people obtain, cook and consume food and what they think and believe about what to eat, when to eat and whom to eat with. In some cultures women may eat only after men have eaten and this may not leave enough food to meet their nutritional needs (Rainville & Brink, 2001).

2.10 Food security at the international, national, provincial and regional levels

Food security is an issue for all, the international community, the country, family and individuals. National or global food security is not sufficient to address food insecurity at the household level in many parts of the world. Therefore, food security at one level does not ensure food security at another level.

2.10.1 Global - An overview of global food insecurity situation

The Economist Intelligence Unit Limited (2013) in its report *Global Food Security Index 2013: An annual measure of the state of global food security*, has identified western countries as the most food secure countries. The Global Food Security Index was created using 28 indicators that measured affordability, accessibility and quality of food. There were 107 countries in the index. Countries like the US, Norway, France occupied the top three positions in the index. Canada ranked eighth in the index. At the bottom of the index are sub-Saharan African countries. FAO (2012), in their *The State of Food Insecurity in the World* report, has presented the number of chronically undernourished in the world as 870 million.

2.10.2 National - Canada

Food insecurity is more pronounced in low-income countries but is also an issue in Canada. Canada made numerous changes to its welfare system and social policy framework in the mid 1980s. This resulted in reduction in unemployment benefits and elimination of the Canada Assistance Plan (Salt, 2012). Along with these changes, living costs increased. For some people, this made it difficult to meet their food needs and emergency food programs such as Food Banks attempted to fill the gap. These programs were meant to provide short-term relief but later became well established as the demand kept growing. A historical record in Food Bank use was seen in 2011 when over 850,000 people used a Food Bank every month (Food Banks Canada, 2011). Many people in Canada struggle to access food and food insecurity has become a chronic problem.

Food insecurity in Canada: Recent facts and figures

In 2007-2008, 8% Canadian households (approximately 956,000 households) experienced food insecurity (about 5% moderate food insecurity and 3% severe insecurity) (Statistics Canada, 2011). The Council of Canadian Academies (2014) in its report, *Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge*, stated that 1.6 million Canadian households, (about 12% of the total households in Canada) experienced some degree of food insecurity in 2011. In other words, one in eight households was affected. This means 3.9 million individuals including 1.1 million children (Council of Canadian Academies, 2014). In 2012, approximately 13 % of Canadian households experienced some degree of food insecurity ranging from 11.5% in Alberta to 17.5% in Nova Scotia (Tarasuk et al., 2013). Indigenous people in Nunavut had the highest rate of food insecurity (Foster, 2014). The number of food insecure people would increase if all people who might have experienced food

insecurity are included such as those living on reserves or homeless. The trend suggests the problem is increasing in Canada.

2.10.3 Provincial - Saskatchewan

Food Security in Saskatchewan

In Access and affordability: Saskatchewan food banks explore the cost of healthy eating, Bernard (2010) has presented the following information:

- Since 2002, food costs in Saskatchewan have increased by 22.2% and shelter costs have increased by 38.6%.
- A single man or woman receiving social assistance through the Saskatchewan Assistance Plan (SAP) would spend approximately 97% of their monthly income on rent, leaving 3% to cover food, transportation, and other monthly expenses.
- A single man or woman working full-time at a minimum wage job would spend approximately 73% of their monthly income on rent and food costs alone.
- A single mother with a child receiving the Saskatchewan Assistance Plan would spend 78% of her monthly income on rent and food.
- A family of four receiving income through the Saskatchewan Assistance Plan would spend approximately 83% of their monthly income on rent and food.

The data presented by Bernard (2010) highlight how lower-income people in Saskatchewan do not have sufficient resources to afford healthy food. Canada experienced an economic recession in 2008-2009 that left 363,000 Canadians jobless (Osberg, 2009). Food banks in Saskatchewan assisted 24,621 people in March 2012 which was 38.7% more since 2008 (Food Banks Canada, 2012). The increase may be attributed to the recession that began in 2008.

The Cost of healthy eating in Saskatchewan

A nutritious food basket is a tool to measure the cost of healthy eating, that is, food affordability (Health Canada, 2009). It is based on about 60 food items that are recommended for various age and sex groups. In Saskatchewan, the average cost to purchase a Nutritious Food Basket for a family of four was \$648.57 per month in 2001. Five years later in 2006, it was \$747.04 per month (The Cost of Healthy Eating in Saskatchewan, 2006). The cost further increased to \$887.75 in 2009 (Bernard, 2010). The cost kept rising and reached approximately \$945.00 in 2012 (Saskatchewan Food Costing Task Group, 2012). The amount was higher for families in the northern part of the province. The trend is such that people have had to spend more money on food as time has passed. Collecting information on food costs helps contribute to monitoring food security (“Public Health Nutritionists of Saskatchewan,” 2014).

2.10.4 Regional - Saskatoon

Food insecurity in Saskatoon

In Saskatoon, the Saskatoon Food Bank and Learning Centre helped 9,943 individuals at least once in March, 2012 (Food Banks Canada, HungerCount 2012). One year later, in March, 2013, the number of people visiting the food security was slightly lower at 9,337 individuals but the number of food hampers was 11,854 because people can use the food bank twice in a month, (Food Banks Canada, HungerCount, 2012). Although food bank data are helpful, they do not provide a complete picture of food insecurity because many people either do not or cannot access a food bank.

2.11 Initiatives, programs and services to ensure food security and to address food insecurity

Food insecurity, a chronic, complex, multi-level and multi-dimensional issue, requires wide-ranging approaches to addressing it. Canada is involved at the international and national levels to address food insecurity.

The Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC) contribute knowledge, resources and technology to reduce food insecurity around the world. They partner with other local and international organizations and conduct research and give support for improving food security (Agriculture and Agri-Food Canada, 2006).

In Canada, the federal and provincial governments and civil societies collaborate on improving food security in the country. Canada has developed policies, tools and other resources related to food and nutrition including Canada's Action Plan for Food Security, 1998 and a social safety net of income support to reduce poverty (Agriculture and Agri-Food Canada, 2008). Canada's Action Plan for Food Security (1998) is Canada's seven commitments on improving food security. The plan is a blueprint for the dealing with issues of food security. It recognizes that conditions such as poverty alleviation, social justice and sustainable food systems are crucial in achieving food security. There are a number of national programs to help support food security for example, the National Child Benefit (NCB) supplement, and Aboriginal Diabetes Initiative. Canada's fifth progress report on food security lists more programs both domestic and international. The domestic programs are often supported by provincial governments with initiatives such as social assistance and affordable housing.

In Canada, many food security initiatives are developed to help people offset the effects of food insecurity. According to the Dietitians of Canada (2007), these initiatives are designed to provide short-term relief to low-income people “through food banks, soup kitchens, and other charitable or emergency food programs” (p. 2). However, Dietitians of Canada (2007) puts emphasis on “long-term, systematic, and comprehensive approaches to address food insecurity for everyone in the community, not specifically low-income people” (p. 2). This requires long term commitments from governments (federal, provincial and territorial) and civil society to work together on a wide variety of initiatives.

Food Banks Canada (2010) identified that changes to the following three policies would make the most significant change in alleviating hunger. These are “investment in affordable housing, increases to social assistance benefit levels and increases to the provincial minimum wage” (p. 1). Food Banks Canada (2015b) suggested designing a basic income plan by way of the tax system instead of the provincial Social Assistance Programs. In addition, it also recommended for other benefits such as affordable housing supplements, and drug and dental insurance and more information on the efficacy of social assistance.

In Saskatchewan, Engler-Stringer and Harder (2011), in their report *Toward implementation of the Saskatoon Food Charter: A Report*, have presented a comprehensive list of local organizations in Saskatoon that are working in different areas to improve food security through the implementation of the Saskatoon Food Charter. The programs and initiatives align with the principles of the Saskatoon Food Charter. The list is given in Appendix A.

In addition, there are other agencies such as private sector, non-government organizations, professional organizations, and universities that are also involved in achieving

food security. Food banks, CHEP, and the Friendship Inn are some of the organizations that help in the short-term. They offer food for free or at a reduced price.

2.12 Gender issues

In most societies, women and men have different roles to play and hence achieve food security for their households according to their roles, responsibilities and capacities. In many parts of the world, men work outside the house for income generation and women within the home in caring for the family. Women may have less access to resources than men. However, this varies by culture and place. Women may spend more of their earned incomes to meet food needs and thus play an important role in household food security (FAO, 2015b). Women are generally responsible for the purchase and preparation of food and feeding the children and the other members of their households. Therefore, they are key to the food security of their household (Quisumbing, Brown, Feldstein, Haddad, & Pena, 1995).

According to Pinstруп-Andersen (2009), having sufficient income may not assure food security for all members because having the financial means to access food may not translate into actual food acquisition if the household spends the money to buy other goods and services over food or if the allocation of food for the members is not based on their need. Osmani and Sen (2003) have discussed five phenomena related to gender observed in South Asia such as (a) greater undernourishment of girls than boys, (b) higher maternal undernourishment, (c) greater incidence of low birth weight, (d) larger incidence of child undernutrition, and (e) larger incidence of adult ailments.

Women in many households may eat after other members have eaten. This may make them vulnerable to “food discrimination” that may cause undernutrition and ill health (FAO,

2015b). Pregnant and lactating women may become vulnerable to malnutrition. Canadian women in difficult circumstances are known to cut their food consumption to feed their children (McIntyre, Glanville, Raine, Dayle, Anderson, & Battaglia, 2003). Women manage household food affairs and feed others by depriving themselves in the event of inadequate food supply (Hanson, Sobal & Frongillo, 2007). Therefore, such practices in these households show that adequate food supply may not necessarily mean members have adequate nutrition (FAO, 2015b).

Gender inequality exists worldwide and is perpetuated in different ways and forms (Osmani & Sen, 2003). Gender differences in Canada are apparent in areas such as income generation, despite the Canadian government being theoretically committed to gender equity. According to the Health Canada (2006), gender equality in Canada “is guaranteed through the Constitution, under Sections 15(1) and 28 of the Canadian Charter of Rights and Freedoms and by the many international human rights instruments to which Canada is signatory” (para 26). For most food insecure people, poverty is the most important reason that leads to reduced access to food. This problem may be aggravated by gender inequality in a household.

To achieve gender equality, women and men should have the same rights and opportunities to resources. If gender inequality exists then usually women is disadvantaged. Gender equity means being fair to women and men and is necessary to achieve gender equality (United Nations Population Fund [UNFPA], 2005). Gender equality is not to make men and women the same but to make sure that sex of an individual does not prevent them to access to opportunities (UNFPA, 2005).

Osmani and Sen (2003) have stated that “the time has come pay more attention to those consequences of gender inequality that have not yet received much attention, and indeed, have not yet been at all adequately investigated” (p. 106).

2.12.1 Gender differences in income in Canada

In Canada, gender inequalities exist in earning between women and men. For example, “in Alberta, women earn only 68 cents for every dollar men earn; the majority of low-wage earners are women and approximately 150,600 women in the province earn less than \$12 an hour. Women make up 70% of all part-time workers and 66% of all minimum wage workers in Alberta” (The Women’s Centre of Calgary, n.d.). The cause of inequality is not explicit. Income is one of the major determinants of food insecurity and the gender disparity in income consequently might influence gender disparity in food security. However, little is known about food insecurity and gender.

Income inequality has increased significantly in Canada during the last decade (Organization for Economic Cooperation and Development, n.d.). One of the measures of quality of a social system is income distribution and its inequality is considered an undesirable characteristic (Lynch & Kaplan, 1997). Many industrialized countries after 1980 have experienced growing inequality in the distribution of income (Schultz, 1998). Income distribution within society is complicated (Wolfson & Murphy, 1998) and can vary widely among groups of people and women and men. The reasons for the variation are numerous because people earn money in different ways. Canadians earnings include wages, interest, profits, rent, pensions, and government transfer income. Employment is the main source of income in working age Canadians (16 to 64 years). However, in Canada, the unemployment rate increased from 7.2% in 2001 to 7.7% in 2002 (Statistics Canada, 2004). In August 2015, the

unemployment rate was 7.0% (Statistics Canada, 2015). In Canada, gender differences in unemployment rates and earnings have been noted. Before 1990, the unemployment rate for men was lower than women but since 1990 the unemployment rate for women was lower than for men (Employment and Social Development Canada, 2015). However, “women’s average annual earnings have been approximately 71% of men’s since the early 1990s” (Government of Canada, 2015, para. 8). These differences show that Canadian women are economically disadvantaged compared to their male counterparts.

In 2000, for the majority of Canadians, employment constituted the main source of income (Statistics Canada, 2004). Family income includes the total income of the family contributed by everyone from all sources before income taxes are paid (Statistics Canada, 2003). In Canada, there were 3 million people below the low income cut-off and about 10% children under 18 years lived in low-income families in 2007 (Statistics Canada, 2009).

Distribution of income within society may indicate the overall condition of the society. Where income inequality is smallest, people are healthier and have better quality of life and longevity (Public Health Agency of Canada, 2006). If economic benefits are not shared fairly, the gap between rich and poor widens. A comparison of income earned by males and females also reveals inequality in earnings. The Pay Equity Commission (2014) of the Government of Ontario stated “the gender wage gap is the difference between wages earned by men and wages earned by women” (para.1). To eliminate discrimination of wages between men and women almost all developed countries have passed laws. Canada passed the Pay Equity Act in 1987. Despite this effort, a wage gap is still found in Canada. For example, the gender wage gap in Ontario in 2011 was 26%, that is, for every \$1.00 earned by a male worker, a female worker earned 74 cents (Pay Equity Commission, 2014). Although women’s share of the Canadian

labor market is greater than in the past there are more women with part-time jobs and poor quality jobs (United Nations, 2009). In 2013, women constituted about 70% of part-time workers in Canada (Government of Canada, 2015). The income of Canadian women is usually lower than men (Statistics Canada, 2006). In 2011, the average annual income of women was \$32,100 and that of men was \$48,100 (Government of Canada, 2015). In Canada, women's incomes also vary by province. In 2003, women in Ontario earned the highest while women in the Atlantic region earned the lowest (Statistics Canada, 2006). Other sources of income beyond employment include government transfer programs, pensions and return from investments.

The disparity in income between women and men may result from a wide variety of reasons. Rosenfeld and Kalleberg (1990) argued that the differences in earnings were due to individual qualities, family duties and market opportunities. The discrepancy in wages is also due to education, occupation, skill and experience and not necessarily to gender (Schultz, 1998). Supply and demand of skilled workers may also make the difference. Labor market policies and characteristics also come into play as seen in Canada where the majority of employees work individually without being attached to a union and the wages are fixed by bargaining with the employer (Kidd & Shannon, 1996). In Europe, an analysis of gender pay gaps showed that there were various factors to influence the gender pay gap (European Union, 2015). The gender pay gap, an indicator used to monitor differences in wages between men and women, varied by the sector - private sector or public sector. In 2013, a higher gender pay gap was recorded in the private sector than in the public sector in many EU countries (European Union, 2015). It also varied by the type of employment, part-time or full-time. The gender pay gap also varied by the age of employees. In general, the gap was lower for young employees but grew with age

(European Union, 2015). Similarly, the gap also varied by the position of an employee in the job hierarchy. In most OECD countries, gender gaps were narrower at the lower end but wider at the top end (Organisation for Economic Co-operation and Development, 2015). Blau and Kahn (2003) argued that the wage structure may be the main cause for the gender gap in the United States. The narrower the gender gap in the wage structure, the lower the inequality in earnings between men and women (Blau & Kahn, 2003).

2.12.2 Common gender differences recognized worldwide

Women's contribution in sustaining global food security has always been substantial but their contribution in the economy and agriculture is often not duly recognized (Quisumbing et al., 1995). In many cultures, women have lower social and economic status (Phillips, 2005) and hence limited or insecure access to income, education, ownership of property and decision making. As a result of these constraints they are usually less able to increase their access to, control over and use of food despite their considerable roles in income generation, food production and preparation. Such limitations make them vulnerable to food insecurity. Global Education (n.d.), an organization in Australia, states that gender equality "is a prerequisite for the eradication of poverty and hunger" (para. 20). Women's participation at all levels of decision making, including policy formulation, is crucial to food security. Therefore, policies must address gender issues to ensure food security.

Women hold pivotal status in ensuring household food security (FAO, 2001). Their knowledge about food quality, food safety and nutrition is important for the well-being of their family and for the prevention of illness. Women's access to money and education influence levels of nutrition and child health (FAO, 2015b). Hence, household food security needs to be

analyzed from a gender perspective. To achieve household food security, integration of women's concerns, needs and visions in policies and programs is necessary.

2.13 Household division of labour

Some household chores have been considered feminine or masculine, for example, grocery shopping, meal preparation and other food-related tasks as feminine and bill payments, gardening, mowing, and repair work as masculine (Atta-Konadu, Keller & Daly, 2011). In many societies women are responsible for grocery shopping, meal preparation, cooking, clean-up and other tasks related to food. Up until relatively recently in Western culture, most household chores, including food-related activities were commonly done by women (Schafer & Schafer, 1989). Schafer and Schafer (1989) examined participation of male and female partners in food-related household activities in Iowa and found that food-related activities were the “domain of women in most Iowa families” (p. 123) and males' contribution was small. However, more women have now entered into the workforce than in the past. Over the past two decades women's participation in the labour market has increased (Brown & Miller, 2002). In 2004, women made up nearly half (47%) of the employed workforce (Women in Canada, 2005). In 2009, 58.3% of women were in the labour market which is twice the number compared to 1976 (Ferraio, 2010). The employment of women followed an upward trend until the recent economic recession. However, the number of women in the labour force remained 47.3% in 2014 (Government of Canada, 2015). The behavior of men and women towards food-related activities has changed but women still continue to take the major responsibility for household tasks (Brown & Miller, 2002).

2.14 Summary

The literature explored in this chapter helped understand the development of the concept of food security. Several attempts to define food security indicated that the concept is flexible and understood in many ways. The concept is complex for the different dimensions of food security. Moreover, the definition has been broadened to include other elements. Often, income is considered the main cause of food insecurity but other factors also compound the problem. Gender is one of the factors related to food security, specifically the gender pay gap. However, details of gender issues related to achieving food security in Canada are scant in the literature.

Achieving food security is important to keep people healthy. Therefore, people have been looking at measures that help improve food security. In recent years, there are many initiatives, programs and services in place to address food insecurity in Saskatoon. However, the problem continues to exist as indicated by the number of people visiting the Saskatoon Food Bank & Learning Centre for help. Therefore, it has been challenging to address the problem despite the efforts made over the last three decades in Canada.

To develop or tailor policies, plans and programs that ensure food security, the problem needs to be measured and monitored. In Canada, food insecurity is usually monitored through surveys. However, all the individuals are not included, and surveys are limited in their ability to capture some of the more complex dimensions of the problem. Thus only a partial picture of the problem is obtained. Quantitative is most common while qualitative research in this area is less frequently found. Studies of food insecurity experiences in this case of couples residing in Saskatoon is hoped to enhance understanding related to gender roles and food insecurity.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The purpose of the study was to describe the experiences, feelings, and attitudes of vulnerable people about food insecurity and gender roles. Human feelings, behaviours, experiences and beliefs are best studied using qualitative methodologies. In addition, when little information is available in the literature and the topic needs to be explored, qualitative research methodology is particularly suitable (Appleton, 1995; Britten, Jones, Murphy, & Stacy, 1995). This study used descriptive phenomenology as developed by Husserl (Giorgi, 2009). In descriptive phenomenology the goal is to identify the essence or structure of experiences as described by the research participants.

3.2 The researcher's story

The researcher has an important role in a qualitative research as he/she is the key to data collection. The whole process is influenced by his/her fairness and skills (Malterud, 1993). This study was an important opportunity for me who possess a wide variety of experiences both from developing and developed countries. I was raised in an environment where food was abundant yet people were food insecure. During my childhood I observed people asking for food. Since then I became interested in agriculture and studied biology in my undergraduate program. Later I completed another bachelor's degree in veterinary medicine and worked in Nepal for many years. I traveled widely (locally and internationally) and interacted with people from all walks of life. Working with both urban and rural people enabled me to understand different lifestyles, cultures and livelihoods. My exposure to countries like Nepal, India, Bangladesh and Israel and interactions with people having enough food and people without made me more curious to know about food related problems. As my interest grew, I obtained a Masters of Public Health and

Masters of Science in Nutrition which equipped me with a sound knowledge of human nutrition and research. From my field experience and education, I became more enthusiastic to research how people in a community can stay healthy, especially nutritionally, and what interventions can improve nutrient intakes in vulnerable people. I noted that culture and gender-based differences influence intra-household food distribution patterns as well as food intake. I believe that food insecurity and gender issues are global and can be addressed with proper approaches for health and socio-economic advantages in Saskatoon and around the world.

3.3 Philosophical and theoretical framework

The methodology best suited to this study is phenomenology. Phenomenology is a type of qualitative research that studies the lived experiences of people with regards to a particular phenomenon (Byrne, 2001), in this case food insecurity. Phenomenology aims to describe the phenomenon in detail (Donalek, 2004) as well as its essential meanings as experienced in everyday life (Kvale & Bondevik, 2008). Phenomenologists employ a variety of methods to conduct phenomenological research (Dowling, 2007; Priest, 2002; Thorne, 2000). It is the responsibility of the researcher to find one that fits best for his/her research topic (Byrne, 2001). The descriptive phenomenological research method was used to conduct the study. In descriptive phenomenology, the experience of participants within their everyday life is described. In this study the participants were asked to share their experiences with food issues. The study involved two phases: Phase 1 (Interview with key informants) and Phase 2 (Interview with couples from food insecure households).

The philosophy of phenomenology was developed by Edmund Husserl, a German mathematician and philosopher. He is considered the father of phenomenology (Byrne, 2001). According to Husserl, the experience is basic to knowledge (Dowling, 2007). Husserlian

phenomenology emphasizes accurate and unprejudiced study of a phenomenon from the perspective of those who experience it in their everyday life. Martin Heidegger developed a different approach to understand life experiences and emphasized interpretation of the experience to obtain the essence (Ng & White, 2005). Thus, two main schools of thought of phenomenology can be identified: descriptive phenomenology and interpretive phenomenology. These two forms of phenomenological research are similar in data analysis but differ in how much interpretation of data to make (Thorne, 2000). Giorgi (2009) has further described the difference between descriptive and interpretive approaches of data analysis. He said data analysis in the interpretive approach is based on some theories, hypothesis or assumptions but analysis in the descriptive approach is conducted without any interpretation. In descriptive analysis, the essence is described exactly as it is discovered, that is, without adding or taking away what the description represents. Since the findings of descriptive analysis are based solely on data and without researcher's assumptions or scientific frameworks these can be examined by other researchers making the findings more secure (Giorgi, 2009).

Phenomenology is both a philosophy and a research method (Dowling, 2007) and can be applied either as a philosophy or a research method. Phenomenological inquiry focuses on the experiences of individuals. It seeks to find the nature and meaning of a phenomenon. Researchers in phenomenology attempt to study the phenomenon without assumptions and theory (McNamara, 2005). Researchers in phenomenology bracket, that is, set aside their preconceptions about the phenomenon under study, because the aim is to describe the phenomenon through the participant's perspective. A phenomenological approach does not aim to generate theories (Ploeg, 1999). Phenomenology attempts to understand the lived experience of individuals about the phenomenon to uncover what lies behind a phenomenon. Their

experience is described in the person's own words recorded in natural settings to help elucidate the essences of the phenomenon, both in nature and in context.

3.4 Study Population and Selection Process

This study was conducted in Saskatoon, a city in Saskatchewan, Canada. At the time of recruitment the estimated population of the city was 225,000. The target population included individuals from food insecure households seeking food assistance from any organization and/or living on social assistance in Saskatoon. Participants were assumed to be food insecure if they sought assistance from these organizations. First, in order to interview key informants and for support in recruiting participants, the Food Bank, CHEP Good Food Inc, the Saskatoon Community Clinic, the Friendship Inn, the Salvation Army, the Saskatoon Health Region, the Saskatoon Food Coalition and Kids First were contacted. Staff from each of these organizations participated in an in-depth phenomenological interview.

In addition, I interviewed adult heterosexual couples in a household seeking or receiving food assistance from any organization or social assistance programs in Saskatoon. They were recruited through contacts of organizations they visited. In addition, other selection criteria included that they were living together and were willing to participate in this study.

3.5 Research participants and recruitment

Since the aim in phenomenological research is to describe the lived experiences of participants from their own perspective, the study was designed to collect data by individual face-to-face interviews with each partner of the participating couple. Participants were recruited via posters posted at organizations where food assistance was likely to be sought. I visited the Saskatoon Food Bank, Friendship Inn, Salvation Army and CHEP in search of couples who would meet the criteria to participate in this study. After consulting with key informants, I

learned that I would be able to find couples at the Food Bank. Therefore, I decided to concentrate my recruitment efforts at the Food Bank. I volunteered at the Saskatoon Food Bank making food hampers and observing the environment. I also obtained permission to advertise my study to Food Bank clients. I made several copies of my research posters and distributed them to the people who lined up at the Saskatoon Food Bank. I posted some of them on the billboard and put some up at the registration desk. See Appendix B for a copy of the poster (Letter of Invitation) and Appendix C for revised copy of the poster.

There was a very poor response to my poster. After that, I spent a significant amount of time at the Saskatoon Food Bank meeting people in person and promoting the study. The revised poster had details and contact addresses of me and my supervisor. At first, I expected they would contact us as requested in the poster but we did not hear from them. Moreover, there was no way to know who was interested and who took the poster. Therefore, I developed a sign-up sheet so that interested people could register themselves with their contact address. See Appendix D for a copy of the sign-up sheet for many people and Appendix E for a copy of the revised sign-up sheet for couples. I realized that it would not protect their identity so the sheet was modified. I developed one sheet per couple. Even those who showed interest in participating by signing the sign-up sheet sometimes could not be reached when called. Sometimes the calls were not answered or received by someone else. Some participants did not show up at scheduled interviews or were not at home when I visited their home (visit arranged beforehand). So appointments were rescheduled but again missed by some. Ultimately, an incentive (gift voucher and bus pass) was offered. This made participant recruitment easier.

3.6 Modification in selection criteria

The initial eligibility criteria included heterosexual couples seeking food assistance and/or living on social assistance in Saskatoon, who were living together, had a child or children and spoke English. Since recruitment of participants turned out to be challenging, the eligibility criteria was broadened by including couples without children and non-English speaking couples. To interview non-English speaking participants, I planned to use an interpreter or myself if required (I speak six languages). Moreover, a snowball technique was used to facilitate recruitment of participants. I asked couples to recommend other couples who might be interested in participating but this strategy did not work.

3.7 Data Collection

There are different techniques to collect qualitative data and the interview is one of the established methods (Britten, 1995). It is considered the gold standard for data collection in a qualitative study (Sandelowski, 2002). Unstructured or semi-structured interviews are used in qualitative research (Burnard, 1991). Among different interview types, in-depth interviews are the least structured making them suitable to explore issues in detail (Britten et al., 1995). The interview is the technique routinely used in phenomenological research (Fossey, Harvey, McDermott & Davidson, 2002).

In phenomenology, the details of people's feelings, experiences, and views are best obtained by in-depth interviews (Buston, Parry-Jones, Livingston, Bogan & Wood, 1998), with up to ten people (Creswell, 1998), although sample size can range from one to ten individuals (Starks & Trinidad, 2007). The data were collected by in-depth interviews of key informants and research participants. This was a one-on-one interaction of 40 minutes on average duration between me and the participant. Other studies have reported on interviews ranging in length from 30 to 90 minutes (Newshan, 1998).

Chan, Fung, and Chien (2013) stated that “the researcher is the primary instrument for data collection and analysis in qualitative research” (p. 3). I enhanced my interview skills by interviewing three volunteers before I interviewed key informants or research participants. Three volunteers acted as research participants and one of them as a key informant. Therefore, there were three persons but four interviews. Their valuable feedback helped me identify the areas for improvement.

The in-depth interview is a face-to-face conversation with the purpose of exploring issues or topics in detail. In this study, the interviews were open-ended, however, questions on specific topics were asked to ensure covering all areas of interest. The use of open-ended questions encourages the participants to describe their experiences and feelings and generates rich data (Appleton, 1995).

Multiple interviews with each participant are often recommended (Crist & Tanner, 2003; Newshan, 1998; Seidman, 1998). However, Seidman (1998) suggests exploring alternatives to the interview process if necessary. If conditions are not perfect for conducting the interviews, then he advises making adaptations to the process rather than not conducting the interviews. In this study, there were many limiting factors (e.g., time, money, respondent burden) that led to the decision to conduct one interview with each participant.

According to Marshall et al. (2013) there are no general recommendations about the sample size and number of interviews required to achieve saturation in qualitative research and a number of factors such as sampling procedure, quality of interviews, number of interviews with each individual and researcher experience are influential in achieving saturation. According to Starks and Trinidad (2007), goals and purpose of the study determine the sample size and the number of interviews with each participant. I was interested to know the common features of the

experience participants had in relation to food insecurity. I interviewed them in-depth to ensure that I had enough of their story. I stopped interviewing when I noticed that I was not getting new information.

In my study, recruiting participants turned out to be challenging. Therefore, I had no opportunity to select participants rather they were self-selected. Although, I interviewed them only once I believe I obtained detailed account of their experience that met my requirements to find the essence of the phenomenon.

Phase 1: Key informant interviews

The first interview phase consisted of contacts with key informants. The key informants were contacted for twofold purposes: 1) to share their knowledge and experience on the topic of food insecurity in Saskatoon and 2) to help recruit research participants. I conducted interviews with managers, chief executive officers and executive directors of the Saskatoon Community Clinic, Friendship Inn, Salvation Army Community Centre, Saskatoon Health Region, Saskatoon Food Bank & Learning Centre, CHEP and USSU Food Centre. Ten key informants were interviewed between June 2011 and November 2011. See Appendix F for a copy of the Interview guide for key informants. See Appendix G for a copy of the Consent form for key informants. Key informant interviews helped me understand the issues around food insecurity in Saskatoon.

I wished to understand what the key informants understood about the gender roles of their clients. After asking a few key informants I quickly realized that they either do not keep records of their clients or do not talk about family matters of the clients. They helped people regardless of their marital status or relationship. Some key informants worked with women only. For example, Healthy Mother Healthy Baby provided prenatal support to women. The key informant

at the Friendship Inn explained that the organization offers services to anyone and do not keep records about the clients they serve. The Saskatoon Food Bank & Learning Centre and CHEP were the organizations who helped families with food but they were unaware of personal lives of their clients. Thus, key informants were unable to comment on gender roles of their clients.

Phase 2: Study population interviews

The research participants (11 couples) were interviewed between July 2011 and January 2012. See Appendix H for a copy of the Interview guide for study population. The interviews were conducted by the researcher at the participants' residence, workplace or Thorvaldson building (University of Saskatchewan) at the time and day mutually agreed upon by the participant and myself. I interviewed each participant individually in the absence of his or her spouse. Before each interview, I explained the interview procedures and how confidentiality was maintained. I encouraged participants to ask questions about the research and their rights as participants. They signed the consent form and thus informed consent was obtained. See Appendix I for a copy of the Consent form for the study population.

I started each interview by discussing the aims of the study and asking if they had any questions. I encouraged them to describe their experiences in detail. I used probes for in-depth information. Interviews were conducted in a private room to minimize interruptions (Balls, 2009). The interviews were audiotaped. Participants also provided demographic data. Information on age, sex, education, employment, house ownership, and number of children in the household were collected. Shortly after each interview, the context, perceived atmosphere, and nonverbal communication were noted in a methodological journal. This information was later used in data analysis.

Transcription. All audiotaped recordings were transcribed verbatim. Transcription included mispronounced words as said by the participant and nonverbal and background sounds. During transcription, I made no attempt to clean up transcripts by correcting grammatical errors or deleting repetitions. All the transcripts were proofread by checking against the audio recordings. I transcribed more than half of the interviews and a transcriptionist was hired to transcribe 14 interviews. I examined all transcripts for accuracy whether transcribed by me or the transcriber. See Appendix J for a copy of the Interpreter and translator confidentiality agreement.

Participants were offered an opportunity to review their interview transcripts and make changes if they wished. They indicated their choice on the consent form. Some participants were not interested in reviewing their transcript and authorized the researcher to use their transcripts by choosing this option in the consent form. I sent interview transcripts to those who were interested and asked them to review and send back to me with the Transcript Release Form in two weeks. Out of 22, ten participants were interested in reviewing their transcript. The transcripts were sent during April 2012 - August 2012 by email or post. Participants returned the Transcript Release Form by post and fax. A similar procedure was used with key informants. See Appendix K for a copy of the transcript release form.

3.8 Data analysis

In this study, the phenomenological method as described by Giorgi was used for data analysis. Giorgi's approach to phenomenology is based on Husserl's phenomenological philosophy and is believed to produce broad, significant, systematic and verifiable knowledge (Jensen, Back-Pettersson & Segesten, 2000). The goal of Giorgi's phenomenological method of analysis is to discover "the meaning of a phenomenon as experienced by a human through the

identification of essential themes” (Koivisto, Janhonen & Vaisanen 2002, p. 1). Giorgi (2009) described the method in following three steps:

1. Reading the transcript to obtain a general sense of the whole: The first step is to read the account of the participants’ experiences to understand the phenomena as a whole, since they might have been described in different parts of the interview. It is the job of the researcher to understand the experience in full from the entire description. This makes the phenomenological approach holistic. Obtaining a general sense of the transcript is a prerequisite to complete the data analysis. The researcher reads the description assuming the phenomenological attitude, that is, to examine how things are experienced ignoring the way they are experienced. It is important to focus on how things are perceived whether things are real or not. The researcher needs to be sensitive to the description of the experience.
2. Determination of meaning units: Usually the description provided by the participant is too long to read holistically so the description is broken down into smaller parts. So, in the next step the researcher looks for meaning units in the description. When the researcher feels that the unit carries a different meaning he or she labels them. Meaning units are phrases or sentences that capture a single meaning and make the data manageable. The researcher groups the meaning units into themes.
3. Description of the structure of the experiences: This step is very labor intensive because it is not easy to describe the essential structure of the lived experience. The researcher searches for the essence of the phenomenon. To help with this, the researcher uses free imaginative variation, that is, the data is visualized in different forms. The researcher needs to think about the data and be creative with it. The researcher explores different

ways to express the data including the opposite of what he or she thinks best describes the phenomenon until he or she can describe the meaning of the experience accurately. The researcher looks for the characteristics that are necessary to describe the phenomenon and eliminates unnecessary characteristics. It enables him or her to identify the essence of the phenomenon. Free imaginative variation is the process to determine the essential structure of the phenomenon.

In this step, data from several participants are combined to generalize the experience of the participants. Every participant has their own experience of the phenomenon and descriptions vary among participants. However, the descriptions can vary but have the same meaning. Meanings from the data of several participants can be integrated to obtain the general structures of the phenomenon.

The transcripts were imported into NVivo 9 to help analyze the data. The interview transcripts of key informants were analyzed first. Interviews with research participants were conducted after key informant interviews. I separately analyzed the interviews of male participants and female participants. Thus I had three sets of data - data from key informants, male participants, and female participants - that were analyzed individually. Results from male participants and female participants were compared and contrasted to examine the gender differences and similarities. The results were then triangulated with results from key informant data. The process of analysis began by me reading and thinking about the interview transcripts as described by Giorgi (2009). Themes that are identified in studies of this nature typically describe the essence of the phenomenon (Beck, 2009).

Data saturation. Data saturation occurs when the researcher is no longer hearing or seeing new information. As transcripts were read, coded, and analysed, it appeared that no new

information was being heard, suggesting that data saturation had been achieved. Thus, additional couples were not recruited for the study.

Quality and verification. The quality of research is supported through the rigor of the research process and trustworthiness of the data. Creswell and Miller (2000) have described nine different approaches for establishing credibility such as triangulation, member checking, establishing an audit trail, sharing disconfirming evidence, prolonged engagement in the field, thick description in reporting, researcher reflexivity, collaboration and peer debriefing.

Maintaining rigor was of paramount concern and the following methods were used for supporting the credibility of the study findings. The interviews were conducted by the researcher himself and were transcribed verbatim. The data were collected directly from the participants who have lived experience of the phenomenon. To guide the interviews an interview guide was developed and submitted for review by my thesis committee. All interviews were audio-taped assuring accurate reflection of the participant's thoughts. It helped support the credibility of the data and minimize researcher bias. In order to further increase the credibility of the research findings and conclusions, direct quotes were used in reporting findings.

Member checks usually involve evaluation of the findings of the data analysis by the participants. Researchers following Colaizzi's method of data analysis validate their findings by returning to the study participants, but Giorgi does not recommend doing this (Reiners, 2012). According to Kvale and Bondevik (2008), Giorgi does not recommend this process of validation arguing that it is the interviewer who is the researcher and not the participants. However, in this study member checks were conducted immediately after the interview. I summarized my understanding of the interview and asked participants to validate the accuracy of the descriptions at the end of interview. I restated the conversation and invited the participant to comment or

provide additional information. Their feedback was used to verify whether their views were adequately represented. Similarly, the coding and analysis were examined by my thesis supervisor.

Peer debriefing helped me maintain objectivity and, thus, supported the credibility of the results. An audit trail was kept to ensure the trustworthiness of analysis. I documented the steps taken during the analysis of data and the decisions I made. The process is described in detail to allow the reader to judge the credibility of the study. Field notes were used to record the accounts of events during data collection and an investigator's journal was used to record researcher experiences, feelings and problems.

To promote rigour in my study, I interviewed key informants. Key informants were another source of data for triangulation. Key informants were interviewed for their thoughts, feelings and views on the food insecurity in Saskatoon. Interviews with key informants helped explore issues in depth, develop ideas and to help contextualize the problem. Field notes and literature on the research topic were examined to triangulate the findings. Thus, the results of data analysis were confirmed from various perspectives. Use of data from multiple sources enriched the understanding of the phenomena and enhanced the credibility of the study.

In addition to the above, accounts of the study such as the setting, the participants and the method of data collection and analysis and emergent themes, their definitions and relationships were described in detail. Quotes were presented so that readers could judge the results. Researcher reflexivity, that is, researchers' personal assumptions, beliefs, values and biases were disclosed at the outset of this chapter when I told my story. The interview themes were

examined according to the research objectives and were compared to information obtained from key informants and published literature.

My committee asked questions about various aspects of the research and provided feedback on my process. Regular meeting with my supervisor helped me review my thoughts, perceptions and feelings at the various steps such as formulating the research question, implementing data collection, conducting analytical procedures and making interpretations of the study. It also provided an opportunity for me to evaluate my assumptions and helped promote reflexivity.

Biases and bracketing

The researcher in phenomenology identifies personal values, assumptions and biases about the phenomenon of interest at the beginning of the study. In Husserlian phenomenology, the essence of the phenomenon is better understood when researchers bracket their experiences, judgements and beliefs about the phenomenon (Roberts, et al. 2006). Bracketing is a technique to augment validity in descriptive phenomenological research (Chan, Fung & Chien, 2013). It is necessary because prior beliefs and knowledge about the phenomenon are likely to introduce bias into the research.

It is recommended that Phenomenologists avoid knowing about the topic of interest in the beginning of the research. Chan, Fung, and Chien (2013) have pointed out the danger of prior knowledge of the phenomenon in phenomenology. They said it “could introduce bias into the research and limit understanding of the participants’ perspectives” (p. 3).

To achieve bracketing in phenomenological studies, the literature review is often not done until data collection and analysis is completed (Cobb & Hagemaster, 1987; Hamill & Sinclair,

2010). This ensures that the study is based on the data and the study process is not influenced by the researchers' foreknowledge of the phenomenon. On the other hand, Norlyk and Harder (2010) hold the view that it is necessary to know something about the phenomenon to undertake a phenomenological study. I decided to conduct a preliminary literature review. Sufficient review of literature was necessary to develop the research proposal. It was also needed in order to fulfil the requirements and receive approval of the University of Saskatchewan Research Ethics Board. To find the best compromise, I briefly reviewed the literature before I conducted the interviews and analysed the data. However, later I consulted several articles that talked about gender and food insecurity. This helped me discuss my results.

Before coming to Canada, I had some ideas about the relationship between food insecurity and gender from another part of the world but I was not familiar with the Canadian context. Canada is a country where people from all over the world live which is very different from the country I am from. I had never seen a Food Bank before. In Canada, I worked in a new environment and I had no idea about the cultural background of research participants. Therefore, I did not know I had any prejudices or beliefs about them and the study phenomenon. This provided me the opportunity to see things afresh. In addition to the above, I used the following practices for achieving bracketing in my study.

Being open and honest to learn about the phenomenon. Chan, Fung and Chien (2013) stated that if the researcher knows what new knowledge the research is going to generate then the researcher is not open-minded. Being in a new country and not knowing about the research participants helped me adopt a neutral approach. This study was exploratory in nature, therefore, I did not know what to expect and what the results would be.

Treat the data as valid. My research participants lived in a relationship and had experienced food insecurity; I believe they described their experiences in-depth. I listened to the tapes and read the interview transcripts without knowingly being prejudiced. I recorded my thoughts and feelings and tried to review my notes critically. I did not hurry to complete my analysis. I spent as much time as needed to understand the essence. I believed myself and my instincts when analysing the data, writing and discussing the findings.

I prevented other possible biases. I chose a research design appropriate to the study. After considering on the aim of the study I chose to conduct phenomenological research. To minimize selection bias, I recruited research participants who had experienced food insecurity. I described my beliefs and assumptions at the onset of study. I also described my qualifications, background, knowledge and skills. I described further the people, designs, data, theories, concepts used in this study.

I wrote memos (e.g., times, places, events, people, issues) soon after interviews with key informants and research participants. I also wrote memos relevant to my study such as aspects of coding, categories and themes. I also noted my feelings and reactions to the study. Memos helped me reflect on the process of collecting and analysis of data.

3.9 Ethical approvals

Ethical approval was obtained from the Behavioral Research Ethics Committee at the University of Saskatchewan and Saskatoon Health Region. See Appendices L and M for copies of the Certificate of Approval. Prior to making any changes in the study the committee was informed and I only proceeded after obtaining their approval. See Appendices N and M for copies of the Certificate of Approval - Amendment. I also obtained approval from the Saskatoon

Food Bank to be in the reception room and to talk to their clients. I was allowed to put up my invitation letter (poster) on their billboard. They also collected the sign-up sheets in my absence and kept them secured until I collected them.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction

Eight themes emerged from this study characterizing separate areas of food insecurity experienced by the research participants. This chapter focuses on a discussion of the themes with reference to similar and different findings in the literature.

4.2 Description of target group

A total of 11 couples mostly in the range of 35-54 years were interviewed. All the participants were cooperative in the sense that they were ready to participate and some of them volunteered to come to the university for the interview even in cold weather. Interviews were sometimes conducted in their residence at a mutually agreed time and day. Participants talked at length about their experience. All participants answered all the questions asked. All interviews were conducted in English except with one couple who spoke Nepali, a common native language of the couple and the researcher.

Participants also supplied demographic data on their age, number of children, origin or ancestry, highest academic qualification, employment and residence. An almost equal number of male participants came from Aboriginal, non-Aboriginal and other groups while there were more female participants of Aboriginal ancestry. About half of the participants had an education level of high school or less and the remaining participants had attended technical school, college or university. The majority of participants were either unemployed or worked part-time or seasonally and lived in a rented house. All the participants were living together with their partners at the time of interview. The majority of participants had at least one child. The demographic profile is presented in Table 2.

Table 2 : Demographic profile of the study participants

Characteristics	Number	
Total numbers of couples interviewed	11 couples	
Interviews in English	10 couples	
Interviews in Nepali	1 couple	
Participants Age (years)	Male	Female
18-34	2	3
35-54	6	8
55 or above	2	0
Prefer not to say	1	0
No. of children		
None	3 couples	
1	3 couples	
2	2 couples	
> 2	2 couples	
Prefer not to say	1 couple	
Origin / ancestry	Male	Female
Aboriginal	4	6
Non-Aboriginal	4	3
Other (Immigrant, refugee)	3	2
Level of education	Male	Female
High school or less	6	6
Technical school or college	2	3
University	3	2
Employment status	Male	Female
Employed	3	1
Unemployed	5	4
Other (part-time, seasonal)	2	5
Prefer not to say	1	1

Residence	
Owned (free and clear - no mortgage or loan)	2 couples
Owned with mortgage or loan	1 couple
Rented	8 couples

4.3 Themes

This research identified eight themes related to food insecurity and gender roles. The themes and subheadings are discussed below. Within each theme, the common findings between male and female participants are presented first and then findings from male and female participants are presented separately. In other words, findings follow a general to specific pattern. Findings from key informants are presented. Direct quotes convey the lived experience of participants. Participants' identity is protected by assigning them a code. For clarification, operational definitions are given where deemed necessary. Some words are used interchangeably. For example, target population, research participants and couples denote the same group of people who participated in this study. Similarly, "study" and "research" are synonymously used. The themes are

1. Theme 1 - Food decision-making was the domain of female participants.
2. Theme 2 - Grocery shopping was the domain of female participants.
3. Theme 3 - Cooking and related activities were shared.
4. Theme 4 - Couples held similar views about their household food situation.
5. Theme 5 - Female participants felt more challenged than their spouses.
6. Theme 6 - Coping strategies
7. Theme 7 - Food availability and accessibility as challenging
8. Theme 8 - Key informants worried about accessibility but not availability of food

4.3.1 Theme 1 - Food decision-making was the domain of female participants.

Decisions about food to buy rested mainly with female participants, but in some cases their partners had input into these decisions. In most cases, the female partner made the decision with little input from her partner.

I do. Uhh 99% of the time I do the food buying, and I make the decision and the choice. Not always sometimes my husband does, but I do most of it (Interview with C72)

So he does have input in what we buy usually I'll ask if there's anything I'm missing or something like that and he usually he adds it on, to the list (Interview with C42)

Similar to the findings in this study, input by family members on decision making about food was noted by Gillespie and Johnson-Askew (2009). They found that family members often made food decisions jointly, however, in some cases the mother made the food decisions. The role of female participants in food decision-making processes was supported by their partners.

Uhh I would say probably 95% of it is my wife but uhhh uhh I do I how do I say this like my wife and I have been together since 1990 so that's a long time, right? So we know each other really well. And, we know each other's preferences and eating habits and uhh what we like and what we don't like (Interview with C71)

It goes two way street there that's a two way street there because there's a decision that she makes and there is the decisions that I make and if it's in the same price range yeah we can do it. But if it's not in the same price range then we both look at each other ok do we need this or can we find something similar that may act like this (Interview with C11)

According to Levi, Chan, and Pence (2006), men have lower involvement and interest in food decisions than women. This gender difference in food decisions may be seen by males as a feminine activity. Some male participants felt that they may not always be thoughtful about spending money whereas their female spouses often were.

It is done traditionally by her. . . . She takes care of the house. . . . In addition to her knowledge, it is safer to let them manage the house. I am a man and sometimes spend time with friends. If there is money in the pocket, it tempts you to go to the hotel and makes you careless (Interview with C111)

Participants gave various reasons for the decisions they made about what food to buy. Most decisions about what food to buy were based on the need to satisfy hunger, the cost of food, interest in making food decisions, time available to make food decisions, the budget available and interest in eating healthy food.

I dunno (laugh) hunger usually tells you what you gotta buy (laugh) that and whatever's cheapest on a on the shelves, especially for meat (Interview with C101)

uhhm my wife is very conscious of the cost of things and so a lot of the decisions about buying the food that we eat are based on cost (Interview with C71)

Dachner, Ricciuto, Kirkpatrick and Tarasuk (2010) found that factors such as food preference and health considerations guided the food purchasing decisions for low-income families in Toronto, but price was the most important factor. The more severe the food insecurity the more important price was considered. When the cost was an important consideration, participants usually bought inexpensive food.

oh uh usually what's well what we need. Like if we ran out of umm pasta you know macaroni or whatever hamburger then that's what we get nothing too like nothing expensive. Just like regular hamburger and macaroni and tomato soup and wieners and chicken (Interview with C31)

the food might be a little too expensive so it's kind of scary to go off of the our our normal uh you know like routine or you know what I mean. Yeah it's kind of so we just stick to what were comfortable with (laugh) you know I mean eating the same foods (Interview with C41)

Participants usually bought more or less the same foods every time they shopped.

According to Gillespie and Johnson-Askew (2009), food decisions are mostly habitual and change with the change in family size, roles, responsibilities and health.

Umm well being able to buy variety. And being able to afford it is a challenge for us cause sometimes we end up eating the same things a lot. so that's kind of stressful I guess. You wanna feed your children good food but it sometimes you can't afford the food stuff all the time (Interview with C42)

We don't have enough money to buy the foods that we want eh like the more healthier things eh its expensive to get like certain things eh like it adds up pretty fast and with our income we can't really get the things we want you know what I mean so we just get the usual things ... I usually buy foods that I'm used to you know ... cause with the money we have its usually what we can afford so we don't usually you know go off a that list or anything you know like we just stick to what we can afford right (Interview with C41)

Asp (1999) has described some factors that influence people in making food choices.

The author discussed cultural factors, psychological factors, life style factors and food trends to describe how people comply with Food Guide Pyramid (U.S.) guidelines. Culture determines people's food habits and food intakes. Psychological factors such as food preferences and food likes and dislikes are some of the decisive factors of food choice (Asp, 1999).

Many participants in this study made grocery lists and said they bought foods preferred by family. According to Miller, Warland, and Achterberg (1997), people make most of their decisions to buy food at the store at the time of purchase but it is not known well about the strategies people employ in deciding food choices.

4.3.1.1 Male participants

Decisions about what food to buy was influenced by a range of factors. Some of the factors were necessity to eat, the price of foods and health concerns.

Just everything we need (Interview with C21)

They provided input into making grocery lists because they knew about their needs, the cost of food, and each other's food preferences and eating habits. However, some participants felt their food budget was low. Thus, they often bought food that they considered less expensive or food on sale. Still many tried to choose food that they considered healthy.

uhh not too good. We don't get enough. We don't get enough money so you just spend like 150 a month that's not very much (Interview with C21)

Mostly it's our health I guess my boy we try to keep him healthy. I'm really overweight eh so yeah I wanna lose about 60 pounds so that's mostly I'd say that's my basis for buying certain foods I guess (Interview with C41)

Some male participants explained that because women usually take care of the house they made the food decisions and did the grocery shopping. This male perspective is supported by Prattala et al. (2006) who stated that women in many families usually look after food purchasing and preparation. Some male participants mentioned that their spouses were very knowledgeable about food and nutrition. In Canada, women think that they are more knowledgeable about nutrition than men (Agriculture and Agri-Food Canada, 2010).

She is very knowledgeable about food and nutrition I think (Interview with C91)

4.3.1.2 Female participants

The majority of the female participants said the decisions about what food to buy were made by themselves. They gave several reasons for why they made the food decisions. Often it was because they knew what they needed to buy and what their partners or family liked to eat. Their decisions were further guided by cost of food, quality of food and time to do the shopping. Some participants said they made decisions about food to buy together with partners and their partners supported them.

just things we really need and things that'll last to the month like more like bulk kind of (Interview with C22)

on how much money I have for groceries, usually that's what the decisions are made on how much money we have (Interview with C42)

I think we both agree on what we like, what we like to get (Interview with C32)

4.3.2 Theme 2 - Grocery shopping was the domain of female participants

In many households, grocery shopping was mainly done by the woman. They stated that they had the time and interest in shopping and cooking. According to Otnes and McGrath

(2001), shopping can be a social or recreational activity for women but little is known about how men view about and do shopping. According to Caraher, Dixon, Lang, and Carr-Hill (1998), grocery shopping is primarily a female responsibility. It is commonly believed that mostly it is women who plan, shop and cook for the family (Cairns, Johnston, & Baumann, 2010).

Uhh I do primarily because I do a lot grocery shopping I enjoy shopping for groceries but on occasion my husband will (Interview with C92)

However, shopping for food alone or with partner depended on their experiences and time availability. In other households, it was a shared job between partners depending on who was available to shop.

I end up doing the shopping. She'll do some if she's out that day so we kind of share it. (Interview with C81)

Sometimes I go with my partner. When I go alone I get what we need and he gets what we want (Interview with C52)

Compared to male participants, female participants in this study took greater responsibility for food shopping. In western societies, women are more involved in food planning, shopping and cooking than men (Bove & Sobal, 2006). However, with the increasing number of women entering the work force, it is possible that men are playing a greater role in planning, purchasing and preparing family meals. According to Harnack, Story, Martinson, Neumark-Sztainer, and Stand (1998), usually men and women both consider that they contribute significantly in performing household chores. However, they warned that there might be bias in reporting by men and women in their survey research depending on who responded on behalf of the household. Nevertheless, they found that in certain types of households such as low income households, households with children, households in which female worked full-time and households with younger members, men were more likely to be involved in planning, shopping

and cooking. In households with older members, males hold more traditional gender roles and their participation in household tasks was low.

For some participants grocery shopping was challenging. Paying rent and bills and increasing prices for other basic household items did not leave them much money.

umm they could give you more money for groceries. Cause basically when you're living off welfare, your whole check goes to your rent. So you don't have nothing for groceries maybe \$20 or \$30, that's about it. But that includes your transportation, your groceries. And then if you want cable, then that's basically all your bills. And nothing for groceries so. That's why we depend on other resources (Interview with C102)

This finding is congruent with the study by Dachner et al., (2010) who found that paying rent was more important than other expenses for their participants so they bought cheaper food to save money. Increasing food prices limited grocery shopping. Some participants did not have enough to afford the food that they wanted. They reported buying some food then supplementing it with food from the Food Bank and CHEP. Some participants found grocery shopping stressful with children. Caraher et al. (1998) in their study found that for women it was more difficult to manage transport and childcare whereas food storage and limited cooking facilities were challenging for men.

I like it, sometimes it's stressful going to buy groceries with the little with the little one with me, but usually it's pretty its pretty good, I don't mind it (Interview with C42)

Some of the participants in this study were able to shop at different stores because they lived close to them or were able to easily access them. This allowed them to compare the price and quality of food.

We live close to two grocery stores. So I can go to both grocery stores and see some of them by cost, some it's by the quality. . . . I am more available, so it's more my time to do it but also I am good at making the decisions as to how to spend the money (Interview with C72)

Participants were conscious of the money they had for food. Cost of food was one important factor in grocery shopping. They shopped where they believed they got the best value for the money spent on food.

We do different places at different times. So it's not just one store we hit. Plus we have a food buying club that is organic and buys bulk so my husband and I kind of run that (Interview with C82)

Participants used various approaches to get the best value for their money. Most participants prepared a grocery shopping list. They compared products for price and some bought foods that were on sale. This finding is also consistent with the study of Dachner et al. (2010). Engler-Stringer (2011) has described some of the grocery shopping strategies used by participants in her study who checked for sale items, did not buy certain groups of food items they considered them expensive and strictly budgeted to save money. Some participants considered healthier food expensive and stated that they were not able to buy what they wanted to and rather bought foods that they could afford. Some participants made an effort to make food last longer by eating most of the time at the Friendship Inn.

While shopping, most participants considered the likes and dislikes of household members. For example, vegetarian parents bought meat for their children. In some cases the purchase of food that was particularly liked by family members was possible if there was extra money.

The type of food the participants bought depended on resources available to them. They bought both packaged and ready to eat food and raw food to be cooked at home. A few female participants mentioned that availability of time to cook food determined the foods they bought. When there was enough time, they prepared food from basic ingredients at home that they considered healthy, otherwise they bought food that was easier or faster to cook.

Uhhm there's time when we are really busy sports that I do . . . buy fast food food that you can buy through a drive-in take-out . . . fast prepared food uhhm like a pizza or something you put in an oven and something like that (Interview with C92)

Nesbitt et al. (2008) found that the survey population in their study in Ontario grocery shopped at least once in a week and half of the food purchased constituted raw food items, one-quarter ready to eat food and approximately one-fifth ready to cook food. Cooking skills influence the type of food people purchase. In general, men have lower food and nutritional knowledge and cooking skill than women and they also do not enjoy cooking as much as women do (Melanson, 2008).

I'd rather have healthier stuff eh, you know, like I dunno like I have an ideal diet that I'd like to eat but um I dunno like the recipes and stuff like I don't know how to prepare it (Interview with C41)

Most of the participants bought food that they considered inexpensive. The brand of a food was not a consideration.

just the cheapest I just go for the cheapest I don't care what brand. [And you said that you usually buy raw food and you cook at home?] Yeah (Interview with C62)

it doesn't really matter to us we'll buy the cheaper brand. Tastes the same I think (Interview with C42)

People with limited incomes often purchase energy-dense foods as these foods are generally cheaper than nutrient-dense foods (Widome, Neumark-Sztainer, Hannan, Haines, & Story, 2009). Many participants bought the same foods all the time.

Sometime we don't have enough money to buy the foods that we want like the more healthier things eh it's expensive so we just get the usual things (Interview with C41)

Buying in bulk was preferred by some to save money and labor. In summary, participants used many strategies such as making shopping lists, buying foods on sale and comparing food prices, shopping at more than one store if possible and not caring for brand names.

Some participants obtained food from garden and some from the wild. Picking blueberries and hunting by participants or their relatives was another way to acquire food. Some obtained meat from farms just outside of the city.

4.3.2.1 Male participants

Most male participants said grocery shopping was done by their partners. Some male participants said they did not join their partners for shopping because they were busy or did not like to shop with their partners or expected their partner to shop.

Uhh lately its [shopping] has been mostly my wife. I think when children were younger I did more of that grocery shopping. So it's somewhat divided right now but I think my wife does more of it because I work away from home so she is home all the time (Interview with C91)

She does the shopping. Cause I don't like shopping with her. Because she'll go to one item, go shopping, then she'll go right back to that one item and then she'll start again. That's why I don't like shopping with her. She does all the shopping. And she knows that everybody just expects it of her I guess. She usually goes, buys the cheapest. (Interview with C61)

4.3.2.2 Female participants

Most of the participants said that it was them who shopped, cooked, cleaned and did all the food related activities most of the time. They usually had time and interest to cook and shop.

I am usually free. . . . Yes their needs are met and we buy things that they like and we like. We cook at home. We don't buy ready to eat. It is the fruit, vegetable, milk that we buy every week. Flour is bought in bulk. It is expensive if bought loose and laborious too. Our family is large so if we buy in small packets then it doesn't last long (Interview with C112)

Some female participants wanted to shop by themselves because if their partner shopped, they bought what they wanted regardless of cost or health benefit of food. Female participants wanted to buy food that lasted longer and was healthier. According to Otnes and McGrath

(2001), male and female show different shopping behaviour and their behaviour vary in degree and kind.

Another issue is if my husband is shopping by himself he will buy what he wants as opposed to looking at the price where I will consider the price and how many meals I can get from it. He will just say no I want chicken wings or I want steak and so that's the difference between us with our shopping. (Interview with C72)

Sometimes I go with my partner. . . . When I go alone I get what we need, and he gets what we want (Interview with C52)

Regarding their shopping practices, women participants employed various means, for example, they bought the cheapest food they could find, bought food they believed lasted longer, and bought the cheapest brand of food. Similarly, they usually bought basic ingredients to cook at home, although sometimes when they were busy they bought foods that were easy to cook. Likewise, they usually made a list of food to buy and bought things that family members liked to eat. This highlights the larger role female participants were taking in grocery shopping.

I just go for the cheapest, I don't care what brand (Interview with C62)

We go for the cheapest one whatever we can afford. I try go as fast as I can. I don't really like shopping if you don't have very much money (Interview with C102)

I love doing that I love I love food I love shopping. So if I see something that I think they might enjoy I will buy it depending on how much money I have. I usually go to the store with a list of what I'm gonna buy because I know what I'm gonna cook for them to eat and I have a budget in place but if I feel like we have a little extra money I'll buy something but when I'm making my menu yeah I can't please everybody because there are five in our family but I'm try to incorporate some foods that I know each person likes so that they will be happy at some point during the week (Interview with C92)

We both go for shopping. We make a list of what we're gonna get and then sometimes we forget our list so we have to help each other what it is we need. We always calculate what we're getting. About I dunno \$100, \$120 about there. We get our potatoes from the food bank and friendship center and vegetables and we get them from the friendship center. Cause they have CHEP day every Wednesdays. A when sometimes whenever we get there late everything's gone (Interview with C32)

4.3.3 Theme 3 - Cooking and related activities were shared

Many male and female participants said cooking was a shared activity between spouses. Many female participants said most of the time they did the shopping, cooking, cleaning and other food related activities by themselves. They said they had time and interest to cook, shop and do these activities. According to Melanson (2008), men usually do not enjoy cooking as much as women do. In contrast, some male participants of this study said they enjoyed cooking and cooked as much as they could.

We both take part on that. Cause we have ideas and sometime the other person has a better idea on how to cook it its like yeah that's a better idea and yeah it's a two way street on that one. Yeah, I actually enjoy cooking because it just expands your horizons sometimes when you just get creative if you're a good cook and you can cook it do it (laugh) have fun with it (Interview with C11)

Sometimes it depended on who was available or they took turns making cooking a shared activity between both partners. Some male participants cooked a meal either in the evening when they returned from work or on weekends.

We all take turns. It's either me or my wife that cooks (Interview with C61)

Both my wife and I cook a lot like we both cook it's not just my wife. I come home at 5 o'clock, which is the end of my work day and the children need to be leaving by 5:30 to go to soccer game or something. Well, there is not really enough time for me to cook and prepare the food and so my wife really does most of it. But on weekends or when I am on holiday or I have extra time that will change to being almost 50-50 or maybe even 60% 40% for me to cook. I love cooking. I cook as much as I can. I really enjoy it (Interview with C71)

Some divided the task or even made a negotiation as one participant said if she cooked her partner cleaned the dishes. According to Bove and Sobal (2006), negotiations over family meals take place as a way to share household labour.

We both kinda take turns on that or else we'll cook it together. We'll cook it together or else one of us will make it. Depends what we're having right if it's a bigger meal then we'll probably make it together (Interview with C12)

Chenhall (2010) stated that women are mostly responsible for food preparation and have greater culinary skills than men. Similarly, Brown and Miller (2002) stated that handling of household chores is gender-based and women do the majority of food chores. However, they said it varies depending on what views men and women hold as a family. If the couple shared a traditional views of gender roles then men were less involved than if the couple were egalitarian. Again, the roles can be different if family structure changes such as birth of a child. This study found that both male and female partners shared the task (handling household chores including cooking) depending on their time availability.

4.3.3.1 Male participants

Some male participants said they enjoyed cooking. They viewed cooking as a way to have fun and be creative. They cooked whenever time permitted such as in the evening when they returned from work or on weekends. They cooked more on the weekends and holidays.

I cook pretty much everything so yeah. I could probably be a chef (laugh) if I wanted to be. I use spices quite a bit so yeah. Well, sometimes it gets a little hot but. Well she cooks too but I think I cook probably a bit more. (Interview with C101)

I do a lot of the cooking and I and part of it too is my wife has some health, not I wouldn't say like she's really really sick but has insensitivities or sensitivities to food. I rarely have to cook a meal in the evening except on the weekends, I'll do some cooking. So I do a lot of cooking, and baking (Interview with C81)

However, some male participants cooked at the time although it was not a favourite task for them. Male participants said they helped their partners in cooking, cleaning, shopping, and other tasks whenever they had time to do so.

It's not one of my favorite things to do but if I have time to prepare food I don't mind doing it. I do like to eat so I have to cook otherwise I starve. Now because of my private employment yeah so when I'm gone she cooks, when I'm home I cook. I do most that (putting food on the table and after eating clean ups) when I'm home and obviously my wife does it when I am gone because I am not there to help out so that's a shared responsibility (Interview with C91)

We both cook but mostly she does. If she is busy, then I cook. Kids also cook. However, she cooks most of the time (Interview with C111)

4.3.3.2 Female participants

Most of the participants said that the majority of the shopping, cooking, cleaning and other food related works were done by themselves. However, they often got help from their husband and children. A few female participants claimed they were not good at cooking or not very interested.

I decide what we are going to make. I shop, I make it and I often clean up and so I am starting more to have the kids doing it. My husband often is not at home and time to do it but on the weekends he does a lot more. He will make 99% of time he makes breakfast on the weekends for both on Saturday and Sunday. He will cook the hotter breakfast, he will be about half the time for the lunch on the weekends and in the summer time he often will barbecue on the weekends. So I do during the week and he does much more on the weekend. (Interview with C72)

The other responses to food related works they gave include (a) husband was not at home to cook on weekdays but cooked on the weekends, (b) cooked a lot of food from scratch to help control salt, sugar and fat consumption, (c) husband did the cooking a lot of the time when he was home or when she was tired; other times they did it together, (d) cook together and sometimes husband did most of the cooking, (e) did not cook very much and partner cooked most of the time, (f) took turns with partner or else cooked together depending on what they were cooking; bigger meals were made together, (g) cooked most of the time because liked to cook and was available, (h) partner cooked most of the time as he liked cooking. This indicated that female participants were supported by their partners. Different participants had different scenario in their household.

We both cook. He's taken over a lot of the cooking in the last five years since I had my last child but I would have to say and my 11 year old son cooks once a week (Interview with C82)

Sometimes I do, other times I don't depending on what projects I have in my life. Sometimes I feel like I don't have time to cook. Yes my husband, he'll cook and sometimes my kids will too. . . . because my husband is gone like he works in a mine and when he comes home I am really tired so sometimes I'll just say you have to do the cooking next week so he'll do the cooking a lot of the time when he is home when I'm tired. Other times we do it together or I'll just do it because I'm not tired and I enjoy cooking (Interview with C92)

We only cook once a day for supper. The rest we eat like lunch for lunch we eat at Friendship Inn. And some mornings go for breakfast at the Friendship Inn (Interview with C32)

I like to cook simple stuff like noodles. I don't really like it. I just cook whatever I can that only takes 10 minutes. Don't really cook, like to cook. He cooks. He cooks most of the time (laugh) (Interview with C102)

I do because I not very busy. Moreover, I like to cook. If I can't, I ask my daughter. If she can't, only then sons take the responsibility. This is the way they do. He (husband) too cooks if required (Interview with C112)

Well, sometime we'll we trade-off but he does most of the cooking because he likes cooking so (Interview with C22)

4.3.4 Theme 4 - Couples held similar views about their household food situation

(For this research purpose, household food situation implies food supply management for the family.)

I found that couples held similar views about their household food situation in terms of resources available to buy food and food choice they made. However, feelings about the food situation varied among participants according to the individual household circumstances. Food insecurity is a concept perceived differently by different people (Ledrou & Gervais, 2005). Moreover, experience of food insecurity varies among the members in a family (Dietitians of Canada, n.d.). This theme included subheadings (a) differences across households and (b) household food situations.

Participants had a range of experiences of food insecurity. This finding was similar to Hendriks (2015) who has described food insecurity as a continuum having a broad range of experiences from starvation to complete food security. It can change over time and be short-term, medium-term or long-term. As a result, households become sometimes more and sometimes less food secure. The experience of food insecurity varied from worry about running out of food to skipping meals.

I don't know we run out we always run out yeah it's not too great yeah we run low on food all the time so we go to the Food Bank and it helps us (Interview with C21)

Well, we have some rough times you know. Usually at the end of the month when we start running out of food that's about it (Interview with C31)

well, usually at supper time we usually cook uh make some soup or whatever you know. Hamburger soup with macaroni, tomato soup something like that. But in the day time we're usually out me and my wife go to the Friendship Inn or the Friendship Center ... cause you know, not really a breakfast not really uh don't really eat breakfast. Not really (Interview with C31)

Some participants expressed anxiety and uncertainty about the food supply in the household.

Good for now yeah. But it'll I figure after Christmas it will be getting a little bit worse. I mean not worse but I'll be running low on stuff (Interview with C51)

Some participants were not happy because there was not enough food or healthier foods.

Some were frustrated and angry when they could not provide what their children wanted to eat.

I wish we had enough more healthier foods like salads and stuff. I wish we could afford having salads everyday cause usually we can't, if we do have salads it's only once or twice and then it's gone and then we have no more money for it eh but I wish we could of have it more often that way I'd out I'd be more healthy right now. I wouldn't be so fat eh (laugh) (Interview with C41)

at times we're happy with what we have but then we usually start to get frustrated and angry because there's things that our that our son wants and we can't give them to him cause we can't afford it or we know that he's gonna have to go without so I guess it'd be like there's different feelings for different times I guess (Interview with C42)

Ahluwalia, Dodds and Baligh (1998) found that low-income participants in their study worried about their financial situation and had feelings of failure to perform their parental duty to provide enough food to the children.

On the other hand, some participants felt happy with their food situation. Participants who felt lucky said they (a) had enough food and variety, (b) had stable food supply, (c) were able to eat whole food, fresh vegetables every day, and (d) ate out a lot and at home. Some other participants were generally happy but wished if they could spend more money on food especially vegetables and fruits or gluten free food for children.

could be more but I'm just happy with what I got it's been high in protein and eating vegetables pretty good. Fruits we're not too much on fruits. And seeing it's about average good yeah I'd say it's about good (Interview with C11)

Yeah generally happy yeah very good eat whatever we want. . . . I wish we would spend more time preparing food than we do but it's again it's a time issue. It's not has not to do with money or transportation or accessibility to food it's just the time to (Interview with C91)

Participants spoke about their food situation in their households. Some ran out of food sometimes and some all the time. Many participants said that because of the financial situation, their food situation changed during a typical month. For some, the food situation changed particularly during the middle part of the month. It was usually better in the beginning of the month and they gradually ran low on food later. This is similar to the finding of Tarasuk, McIntyre and Li (2007) who noted a cyclical pattern of food security and financial resources in households. According to them, food supply was lowest at the end of the month when household resources were depleted. Hamelin et al. (2002) found that food availability in low-income households varied within the month and was more intense at the end of the month.

We run out of food. I don't get enough welfare. And I'm the one that buys most of the food all the time and unless I get my family allowance I buy food my mid-month, I buy

food my end of the month. And then my husband doesn't work. He sits around all day. So it's hard (Interview with C62)

Mmm the beginning of the months we're usually pretty good, we have a lot of variety of stuff but towards the middle is when we start to run out of things and we start to have to go without stuff and then um the end of the month, beginning and end of the month are usually pretty good for food, it's just the middle of the month is when we have we start to struggle with having and having enough (Interview with C42)

probably about the middle because we're on welfare, and our occupation is usually, me my occupation is I'm always drinking. When I'm drinking too heavy, and I spend all the money, but I usually make sure that I spend half of whatever I got into my food. . . . about average yeah it's about half and half and if we do, if we are out of butter and stuff or milk and that, I always have a sister or else a brother that will have extra, they have extra money to loan us until, until we can pay them back (Interview with C51)

Reasons given by participants for running low on food were unemployment, living on social assistance and not receiving employment insurance. Some of them mentioned about seasonal variation.

Well, satisfied most times but sometimes I'm frustrated because I wish welfare would give more basic allowance for food. It's all we get \$50 for basic food allowance. And that's like their system hasn't they haven't revised their provisions for the last maybe 20 years now. They should add some more basic food allowance the shelter cost like housing. So that's my frustration. About they should help out the needy. . . . Sometimes it um end of the month the last week we have to stretch our meals and sometimes we have to go borrow a meat pack from friends, family um it's been stable, were not starving. But yeah it's some days it's no I don't cause there's only 2 of us we're not really too concerned about where we eat cause there's always a place to go (Interview with C32)

For the most part I think we are happy The situation does not change to too much . . . I think overall food situation at our home is pretty good what affects is the season so like now it's a very sort of bountiful season for vegetables and fruits in Saskatchewan (Interview with C71)

For some participants, summer months were better than the winter as they grew a garden. The food supply also changed with family gatherings and celebrations. Participants expressed anxiety about being low on food after Christmas. When food was low they visited the Food Bank. On the other hand, some participants said they always had a good supply of food as they were able to afford to buy food.

uhh in the winter time we have done we have participated with Good Food Box. Uhm in the summertime we grow our own garden so I don't use the Good Food Box in the summertime (Interview with C72)

Participants had varied food situations in the past 12 months. When asked how they would describe their food situation (very good, good, bad or otherwise), they said their household food situation was very good, average or bad. Those participants who described their overall food situation as good said that they always had more than enough food, ate whatever they wanted to, their diet was high in protein or were eating plenty of vegetables and fruits. Some were able to buy food whenever they wanted to and even stock up.

Some participants felt that their food situation was not good and would not improve. Hamelin, Beaudry and Habicht (2002) said that adults in food insecure households may feel excluded from society when they are unable to feed their family properly and conditions do not improve. Ahluwalia, Dodds and Baligh (1998) found that participants in their study were “afraid of losing their children to social services, which made it hard for them to seek assistance from others” (p. 608). While these specific ideas were not mentioned by the participants of this study, many of them were unhappy and frustrated. Some of the reasons for the frustration were not having enough money for grocery, running out of food, not getting enough welfare, unemployment and homelessness in the past.

I'm um at times we're happy with what we have but then we usually start to get frustrated and angry because there's things that our that our son wants and we can't give them to him cause we know we can't afford it or we know that he's gonna have to go without so I guess it'd be you know like there's different feelings for different times I guess (Interview with C42)

well satisfied most times but sometimes I'm frustrated because um I wish welfare would give more more um basic allowance for food. it's all we get \$50 for basic food allowance. And that's like their system hasn't they haven't revised their um their provisions for the last maybe 20 years now. They should add some more basic food allowance uh the shelter cost like housing. So that's my frustration. About they should help out the needy (Interview with C32)

We depend on our food bank likely. . . . It's a little bit depressing . . . and then I usually borrow off my family just to get groceries or else they send me home with groceries . . . it was not so good for about 3 months. Past 3 months it wasn't very good cause we're cause I was homeless and I was everywhere, like from my family to family (Interview with C102)

Some participants said their feelings changed with the change in food situation.

Sometimes they were happy and sometimes not so happy depending on how much supply they had. Hendriks (2015) noted that food insecurity is dynamic and changes over time. Many participants felt their current welfare benefits were insufficient. They were angry as it was hard to survive the month on welfare. They wished the allowance to be reviewed. Some participants were unhappy because they were dependant on the Food bank. Participants expressed concerns about (a) monotony of their diet (participants wished to have salad, fruit and vegetables more often) and (b) food safety (concerned about how and where the food was grown and if pesticide or other chemicals used). A few participants were depressed about their food situation.

4.3.4.1 Differences across households

4.3.4.1.1 Male participants

Feelings about the household food situation varied among male participants. Most of them were happy and satisfied with their food situation. The other participants mentioned that they were not happy because there was not enough food or healthier food to meet their need and were concerned about the high price of food. Some participants expressed desire to have a different food situation. They wished for more food, healthier food or financial help to buy food.

I'm satisfied with it. Sometimes the kids might not be because they might want some packaged foods or fancy foods . . . yeah it's never been short we always have more than enough. Cause we kinda stock up so we can buy a lot of bulk, it'll last 6 months so were just getting near the end of a lot of the things that we would use a lot of, and were ready to order again (Interview with C81)

Well, right now it's not the greatest. I mean, I like a good steak every once and a while you know, beef steak and whatever. But last while can't afford it so we haven't had steak for the last over a month, so like I said I'm a meat lover so like, like my meat Well, it's been (laugh) kind of skimpy the last month especially because I haven't been working for the last month, right, so. If you're not working you're not bringing money in (Interview with C101)

No change in food situation (Interview with C111)

very good to bad. I dunno very good, alright, yeah cause we're very seldom we're out of food it's very not too often we use the Food Bank. But whenever we do need it, it's there (Interview with C61)

4.3.4.1.2 Female participants

They said that they were sometimes happy and sometimes not so happy depending on how much food they had. They were frustrated and angry when they could not afford to buy to feed their children. Not having enough money was stressful. Again it depended on how much they spent on food and other bills. On the other hand, some were happy about what they had at home.

Yeah it is very very good. We have enough food, we have variety, we are very lucky with it, yeah. . . . We also in the winter time have participated with Good Food Box, in the summer time we grow our own garden. So I don't use the Good Food Box in the summer (Interview with C72)

I'm unsatisfied I guess I'm in between unsatisfied and alright huh. I dunno and sometime I'm okay with it sometimes I'm not so I guess I'm very undecided on what I feel about it. Um half the time I'm pretty much happy with what I got as long as I have food (laugh) . . . not every month it depends how high the bills are and everything so. (Interview with C12)

4.3.4.2 Household food situations

Couples had more or less similar views of their household food situation in terms of resources available to buy food and food choice they made. They often agreed with their spouses on price, quality, and type of food to shop.

They're actually quite similar because the food that we have we cook it together because it's the food we have. And we gotta be basically together on it because we're helping each other to eat (laugh). So I would say it'd be similar (Interview with C11)

They also helped each other in cooking and handling household chores. Participants believed that if there were any differences they would hear complaints and not hearing complaints was considered as proof to support the views.

It's similar. I think. I'm thinking he's never complained so. I do wish that we had more ingredients to make a full meal. Like we don't even have enough money to buy the ingredients like the spices we need and all that. So we just stay on like every day meal like soup. We just stay in the budget like the no name brand and yeah (Interview with C32)

To support the claim that their views of household food situation were similar to their partners, male participants gave many reasons. They said they helped or allowed their partners to make decisions about food to buy and cook and agreed with them. They respected likes and dislikes of their partners while shopping and cooking.

He eats pretty much similar to me yeah. Yeah I'm fortunate yeah haha. He's sometimes better than I am at the pricing of food. I used to just go and buy whatever and he's actually taught me to start looking at prices. He might make a comment if it was too expensive but usually I don't do that as much anymore, now that we're on a tighter budget with the food and vice versa he might buy something that I don't think we should have spent money on so I might say something. It's pretty much even though, we pretty much have the same goals as far as our price range and what we want at the grocery store yeah pretty much the same yeah. (Interview with C82)

They are similar like he won't get something I don't like to eat or I won't get something he doesn't like to eat so yeah (Interview with C22)

Well, she doesn't like spices; I use spices that's pretty much the main difference. I like spice on my food, she likes it relatively bland. If for say I make a steak I like my steak spiced up fairly well and hers has to be lesser. I just take it easy on the spices on her side (laugh) and I dose it up on my side. . . . Well, yeah we eat the same amount of food but or same kind of food but, hers has to be less spicy then mine so. We're usually pretty good in agreement on what to buy, yeah (Interview with C101)

They valued their partners' knowledge, skill and experience regarding food related activities. They consulted one another about the food situation in their households. They knew each other very well or lived together for many years.

The same way. I've been with this woman 23 years now, we think the same. When we need food we'll tell one another, let's do this, let's phone my chief, he'll send me some money for food. We view it the same (Interview with C61)

Moreover, male participants believed that their views resembled their partners' when they thought that they needed more money and needed to eat healthier. They believed that their partners were satisfied with the food situation in their households as there were no complaints made by their partners.

I think that we agree that we need more money and I think that we need to eat healthier cause she helps me with my Diabetes, she tries to shop conscientious about that like my health and I guess we both agree that we need to find a job and stuff and I mean we need more food and sometimes I don't like the same foods eating all the time and I voice that to her and she gets kinda (Interview with C41)

Female partners had views about their food situation that were similar, in most part, to their male partners. They used phrases like "being on the same page" and "like the same kind to food".

I think they're pretty much the same. I think we both kind of view as um like there's times when we have all the stuff that we need and then there's times when we don't have hardly anything and we both were kind of frustrated about it. I think we both think of it as the same. . . . usually we're on the same page I think cause usually when we go shopping we make a list and if there's things he wants then I'll get them. So he does have input in what we buy usually I'll ask if there's anything I'm missing or something like that and he usually he adds it on, to the list (Interview with C42)

They usually made shopping lists after consultation with their partners, knew the importance of eating healthy and had similar food choices. They were sympathetic towards their partners and said it is not because men did not want or were not interested to help but they were not available or were busier. There was no time for husbands to come home and plan the meal.

Some female participants shared their shopping experience and how it differed from their partners. Sometimes it differed because they usually chose what they needed instead of what they wanted while men seemed to buy food that they wanted. Sometimes male participants wanted to buy expensive food. Female participants wanted to buy food that would last for several days. Sometimes male participants bought prepared expensive foods that could be cooked at home using the same ingredients. Sometimes male participants bought food that were on sale but not necessarily needed. Despite some differences, they made the food choices agreeing with each other. It could be because they had limited resources to feed themselves and had no other options.

4.3.4.2.1 Male participants

They said their views of household food situation were similar to that their partners hold. They believed the difference in views was not significant if there was any.

I would say similar very similar yeah. Yeah I think they are very similar actually. I think our views about the way things should be are the same (Interview with C91)

Yeah, I am [satisfied with the food situation]. I think she too is satisfied (Interview with C111)

I think it's very very close. I think sometimes it differs because as I said a minute ago we usually go with what we need instead of what we want. Sometimes if I go shopping I will buy what I want (laugh) and so if I say I really want to have a good quality steak well, I will buy it when it whereas she would probably never buy that just simply because instead of being 5 dollars for a pound now it's 9 dollars a pound or something like that but generally speaking no there is I wouldn't think there is a huge difference just a few things here and there (Interview with C71)

4.3.4.2.2 Female participants

Regarding the views of their household food situation, most participants said it was similar to their partners. Making the best food choices possible, liking similar foods, consulting with each other and not making complaints were some of the points they made.

the same in that we both try we both see the importance of eating healthy. Sometimes he will choose things more because he wants it not because it will be a meal for several days it's in so often he will spend more money on a meal than I would. . . . We don't always make the best food choices but we know we think very similar in that the meal should be healthy. We both yeah I would say we are similar ideas about that he never complains about what I make. So that's very fortunate. (Interview with C72)

We express our thoughts freely but he never says anything negative. We consult with each other. We don't have any disagreement. So far we are good and hope not to have any dispute over food. We have the same food habit. We don't eat non-veg. We take the same food and we eat at the same time. We cook separately when kids cook non-veg otherwise we share the same food. We have the same views. (Interview with C112)

I can't speak for him I don't know we don't talk about it we just kind of eat what we have (laugh). We do like a lot of the same foods though (Interview with C12)

4.3.5 Theme 5 - Female participants felt more challenged than their spouses

(In this study the term household chores mean food-related activities including food preparation and clean-up.)

Female participants felt more challenged than their spouses in activities related to grocery shopping and food preparation. They identified challenges related to the money available for grocery shopping, prices, transportation, child care and carrying food home. Inability to buy quality food and medical conditions and dietary needs were challenges mentioned by female participants only.

we don't get that much money especially when you're paying your rent and your bills and then everything's going up everything high and then groceries some place are okay but then like I've noticed that like certain grocery stores um like Giant Tiger you have smaller portions to like if you go to Superstore it'd be a little bigger and their price difference you gotta, depends where you shop like you gotta try to figure out, and then factor is of how you're gonna get there if you don't have a bus pass or a car so (Interview with C12)

I get tired because I have been doing this for long time so sometimes I'm bored or I don't have time like if the children are sick or they need my attention I have to try to figure out how do I prepare food so it's ready for all of us to eat so we have something healthier and nutritious to eat. The other challenges I have are if decide to some more work and I don't have time to cook or I have been doing a poor job at cooking trying to figure out how to

use a crockpot knowledge different kitchen tools so I can make in the morning so it's ready for night but those are basically my challenges. . . . I had to watch what I spend my money on it's very thrifty and I would buy rice in big sacks and store in bags or containers in my house coz it was cheaper to buy it in bulks (Interview with C92)

we have to buy gluten free pasta because um my daughters are my daughter's gluten free so then that's more expensive than wheat right? So I try to limit the pasta. Yeah (Interview with C82)

Shopping and doing household chores were also challenging for many male participants.

The challenges identified by both male and female participants were related to the money needed to buy food, transportation, time to cook, meal planning, and knowledge about healthy food. The challenges varied among participants and they expected different kinds of support to overcome the challenges. The challenges were persistent for some but others encountered challenges unexpectedly.

Some participants said they did not have challenges in shopping, cooking and doing household chores. Some participants did not consider shopping, cooking and doing household chores as a challenge because it was a routine job for them or they treated as if there were not any challenges or managed with the help other members of the family.

Challenges experienced by them were as follows:

Money: The majority of participants did not have enough money. This was mentioned by the key informants as well. Most participants said that the welfare assistance received from the government was not adequate. So finding a way to get money was a challenge for them.

No it's just a matter of money all the time seems like never seem to have enough money. Well foods not cheap anymore. So you gotta shop efficiently and buy things that are like I said either on sale or reasonably priced foods. Yeah (Interview with C101)

Well, being able to buy variety. And being able to afford it is a challenge for us cause sometimes we end up eating the same things a lot. So that's kind of stressful I guess. You wanna feed your children good food but it sometimes you can't afford the food stuff all the time (Interview with C42)

Transportation: Sometimes transportation arose as a challenge for some of the participants. Some of them had to walk if they did not have money for a cab or if they could not hire someone to drive them. It was also mentioned that backpacking food home was hard.

I dunno probably just transportation I guess. That's about it. Pretty well we have bus passes or if we need a vehicle we have that but sometimes, they're not there. So that's the only challenge (Interview with C31)

just gotta catch the bus there and back and it's not that cheap to catch the bus there and back. I only got one bus pass, its either he goes or I go. Or else we're walking. It's like 8 blocks just to the grocery store (Interview with C102)

Obtaining food for the household: Shopping regularly was a challenge for some participants. It varied shopping once a month to more often. The alternative way to get food when food ran out was to use the Food Bank which they used as required.

And then well pretty well just shop once a month. And you know odd little things like if we need this we'll get that during the month you know. If we run out of something like macaroni that's probably a challenge there like if we run out of things. Some of it, gotta find it, or find a way to get them. And we use the Food Bank probably twice a month. Well it's every 2 weeks you can go there. So we use the Food Bank too quite a bit. (Interview with C31)

usually we go for shopping and we get more than we can carry then we have to take the cab and then we have to make sure we have money left over for a cab to get here so that's the only thing I can think of and we don't have a vehicle (Interview with C22)

Meal planning: Some of the participants said planning their meals was challenging for them. It was difficult for them to try to think of what they should eat. A few were tired of doing the same kind of household job, eating the same kind of food or planning what to for the eat next meal. Having the same kind of food week after week may indicate that they have limited choice.

the challenge of trying to think of what we should eat, I mean that's kind of crazy thing sort of like food planning like well last week we had pasta do you wanna have pasta again and I think what that is that's an indication of how much choice we have (Interview with C71)

I get tired of deciding what we are going to eat. I get tired of planning and trying to figure it out which is why when I said earlier we haven't had salad for a while. Another

challenge is sometimes we are very busy we are scheduling different things and so it is harder to plan it for our family to eat so it's part of the schedule, some of it is money is deciding the challenge of what is good value for us to buy for example my son will ask me have a pineapple while it's 5 dollars, the answer is no when it is 2.5, the answer is yes so part of that challenge is deciding how to spend your money (Interview with C72)

Nutrition and medical conditions: Many participants wanted to eat healthier and to eat nutritious food. A few participants expressed worry for their health and dietary needs.

I have my health needs which is IBS, irritable bowel syndrome. I have dietary needs because I'm diabetic. And I also have dietary needs regarding my mental illness. I have post-traumatic stress disorder. So I have to have some kind of comfort food in order to get through a stressful situation I don't make enough money in order to cover my nutritional needs (Interview with C52)

Knowledge about healthy food: Knowing how to buy certain foods posed a challenge for some especially when they wanted to eat healthier food. Not knowing how to prepare healthy meals was another challenge.

Understanding food labels: For some participant reading and understanding food labels were difficult. Participants with health conditions like diabetes expressed concerned about how to buy the foods without sugar or less sugar.

I'd say the knowledge about knowing how to buy certain foods like I said we want to eat healthier and stuff eh but we don't know how to prepare things like that or what to eat like what kind of foods can we buy without sugar like what isn't gonna have too much sugar for because I have Diabetes I can't take it too much which foods like reading labels and stuff we kind of don't do that eh and we don't understand how to read like how to tell like which is the healthier ones that to eat sometimes not all the time but just certain foods eh (Interview with C41)

Time to cook: Busy schedules posed challenge for some participants. Time was the biggest challenge particularly for those who worked out of the city or had young children or were involved in other activities.

yeah probably mostly time, time yes. We have three young children so we are very busy. Yeah we have busy lives so the time would be the biggest challenge for us. We have no challenges in terms of money or transportation or no (Interview with C91)

4.3.5.1 Challenges experienced by participants

4.3.5.1.1 Male participants

Some male participants experienced various difficulties with food related activities. The other participants did not have challenges.

also not having enough money for the things that we need and want cause of bills you know we have a lot of other other you know like high bills eh that so we have to usually take from our funds for food and sometimes put it on that you know. (Interview with C41)

the another challenge just might be the cost of things where you know we are very much aware how much money I am earning... and how much money we can afford to spend and so yeah we will choose as I said before like ... something cheaper you know this is on sale this week well yeah we might want that but this is what we are gonna get. (Interview with C71)

Challenge oh no. No, not really. Well, yeah no no not really, no, just ride pretty much we need a ride and walking we have to backpack it and it's pretty hard. Just ride yeah, transportation (Interview with C21)

No, I just look at it and get right to it. There's no challenge out there that can't be overcome it's like, then you get in there and it's like well what can I do with it ok well there we go let's do it this way (Interview with C11)

4.3.5.1.2 Female participants

The challenges in doing household chores varied among participants. Some of them had a tight financial situation and transportation was an issue. A few participants were tired of doing their daily routine. Participants also talked about their health and dietary needs and pesticide use on vegetables.

I think my biggest challenge would be the price of food. . . . I walk away if something's way too high in price and just not eat it for a while until it cost down or something yeah

and finding fresh vegetables. Like we eat a lot of kale and kales very sprayed pesticide so I try to look for organic and that can be challenging at times. (Interview with C82)

tired, oh it's tiring I wanna run out. They should know. They should haha help once in a awhile, they just sit there (Interview with C62)

No. It's kinda like a routine like we know what we're gonna cook and how we want it done and how, it's yeah it's like a menu. Same thing (Interview with C32)

I don't. I don't have challenges. I just do it when I want. Like we're pretty clean people so after we're done eating we do our like wash our dishes right away. There's only two of us so it doesn't take much putting it on the rack and it's done. It's not hard (laugh) (Interview with C12)

4.3.5.2 Supports needed

Financial support was the most important one stated consistently by both male and female participants. The other types of support are also focussed in this section. Participants mentioned support of different kinds would help them to overcome the challenges they had, have different household food situation and improve food situation in their community. These were most often related to income and benefits.

yeah, more money because I would like to be able to make choices on what we eat not only based on the cost so I would love to but for example it's a luxury I would love to buy chicken breast we never buy chicken breast. I buy chicken thighs or chicken legs or other pieces that are much lower in the cost. So I guess the other thing I would like to time, someone help me more but also the availability of more money or stable price so we could just choose the luxury of what we wanted to have rather than making others for choice (Interview with C72)

I think they should increase how they're helping out people right now with their government programs instead of raising the rent and the bills and you're stuck trying to survive you're paying extra rent out of your food money you're paying extra utility money out of your food money and they still expect you to live off of it so it's hard to. They raise everything except your food allowance (Interview with C12)

For some of them, a job would enable them to get a reliable vehicle and buy better foods.

Likewise, an increase in welfare amount would help. Participants mentioned different

approaches that might help improve the food situation in their community. These are changes at all levels, that is, the individual, community and government levels.

4.3.5.2.1 Male participants

Some participants said they wanted financial help. So, they wanted to find a job or an increase in welfare benefits.

Maybe more money if we could get a job find jobs and then get more income if we had a vehicle I guess that would help. Our vehicle right now we have is always breaking down and it's not registered so we can't really use (Interview with C41)

if government increases money (Interview with C21)

For some, having a grocery store in the neighbourhood and someone to help in the house would help. Knowledge in budgeting, more time to prepare food, and cheaper food prices were also raised.

say if I get home from work and I'm tired and Superstore is right across the street or maybe a few blocks down that's more convenient because I can stop off coming from work buy what I need and just take it home right there and then it's done I don't have to go back out (Interview with C11)

kids are involved in a lot of activities we are on the go all the time and so we if we choose to be involved in less activities we have more time to prepare food (Interview with C91)

Well, I mean, food is not cheap so probably would help if you'd have your own garden and all that good stuff. I used to grow a garden every year and I dunno kinda hard to do when you're in an apartment you know. . . . I dunno. I know there's a whole, whole lotta deer population. I'm a hunter, right. Some of the deer population should be used for supplementing poor people's food (Interview with C101)

They also said it would help them if there were more (a) services and programs like the Food Bank, Collective Kitchens and CHEP, (b) community gardens, and (c) food programs that

educate people about eating healthy and making healthy choices. Access to meat from hunters was also stated.

probably more services like the Food Bank, CHEP program too right? Those kind of programs will help a lot like CHEP and then community gardens and probably some other ones of the more options (Interview with C31)

Educate people about eating healthy and making healthy choices in life (Interview with C91)

4.3.5.2.2 Female Participants

Participants expected different kinds of help to overcome the challenges they had while shopping, cooking and cleaning. Some of them wanted financial help and more welfare benefits for food and rent.

probably I guess being more financially stable would be helpful too. We're both looking for work right now and it's kind of a hard like really hard to find jobs for us so if we could find good jobs then I think it would help us help us out a lot (Interview with C42)

I'd like the welfare social workers to survive on our income for one month and see how they feel (Interview with C52)

I wish welfare would give more um basic allowance for food. It's all we get \$50 for basic food allowance. And they haven't revised their provisions for the last maybe 20 years now. They should add some more basic food allowance, the shelter cost like housing. So that's my frustration. About they should help out the needy (Interview with C32)

They made various suggestions that might help improve the food situation in their community such as (a) more grocery stores, particularly on the West Side, (b) control on prices increase, (c) nutritional knowledge about certain foods and healthy eating, (d) community programs that have garden projects, (e) more programs like Collective Kitchens, (e) more distribution of healthier food by food bank, (f) easier or free access to bus transportation for everyone.

I guess what would help with it is to have a consistent low prices as opposed to have to look in the flyers that come out from newspapers to know what the low prices are to have grocery stores that have basic food that available at a reasonable cost. Uhhm other help would be yeah somebody else as I am starting to work more to have more my family I agreed to do more work with it (Interview with C72)

probably better access to knowledge about certain foods like it's really unhealthy they're gonna have heart problems and they may become diabetics and stuff because of the choices they make and the foods they eat and it would help them if they could find information easier about the kind of choices they're making and the foods that they're eating (Interview with C42)

it would help if they they got um a store on the West Side. . . . community efforts community programs that have a have a garden projects (Interview with C52)

More Collective Kitchens. People want to learn how to cook and learn how to read labels and they could buy bulk food and share it between those families I think that way will be really helpful. . . . Umm if people who are low income have transportation once a week to the grocery store or something. I know there's I can't remember what country of the world they have free transportation like bus it's included in your taxes so you can take any bus and not pay for it (Interview with C92)

4.3.6 Theme 6 - Coping strategies

Couples used different coping strategies when they ran low on food. The most common strategy was to visit a charity organization such as a Food Bank. Reliance on charitable organizations usually increased in the second half of the month.

We go to the Food Bank and it helps us to make it through the month (Interview with C21)

Another coping mechanism was seeking help from family. Family members such as a mother, sister or brother helped them out with money.

I usually phone one of my sisters or my brother or else find something that I'd be able to try to get money out of. Then they give me um I usually probably try borrowing off of someone that I know gonna be getting a check or so or else pawn something at a pawn shop (Interview with C51)

oh no we usually end up running out then we'll use the food bank. Oh yeah his mom helps us with food sometimes too (Interview with C22)

Some of the participants did not care for family support and preferred to receive support from organizations like the Food Bank and Friendship Inn.

I don't bother with family and the only support is the Friendship Inn and the Food Bank (Interview with C62)

Some participants did not get much family support as the family was not able to help them out. Participants borrowed money from friends and relatives or recycled cans and juice boxes. Pawning valuables at a pawn shop was another means to have some money. Another coping mechanism was to buy food in limited amounts.

The coping strategies employed by the participants resembled those mentioned in published literature. According to Kempson, Keenan, Sadani, and Adler (2003) people with limited resources employed various coping strategies to obtain food. They (a) participated in Federal Food Programs, for example, food stamps, (b) attended events primarily to obtain food, for example, church fellowships, happy hour at bars, stores offering samples, (c) participated in locally sponsored food programs, for example, church dinners, food pantries, soup kitchens, (d) exchanged resources, (e) managed personal resources, (f) used support system members, for example, asked for or borrowed food or money, cooked with other people, (g) increased income through activities, for example, provide foster care, pawn or sell items, beg, (h) decreased expenses through activities, for example, garden, hunt and fish, (i) relocated to increase income, (j) relocated to decrease expenses, for example, lived in inexpensive housing (k) used programs to increase income, for example, welfare, (l) used programs to decrease expenses, for example, subsidized housing, (m) purchased food from low-cost sources, for example, discount stores, (n) shopped for low-cost and value foods, for example, bulk foods, inexpensive foods, items covered by coupons, nearly expired food, sale items, dented and damaged packages, expired food, and (o)

engaged in illegal shopping practices, such as shoplift food, switch price tags on food. Some of these strategies, mentioned earlier, were followed by participants in this research.

Participants of the current study expected help in having a better food situation from various sources such as government, charitable organizations, community, family and their reserves. Unemployed participants said finding a job would help. Even those who said they were satisfied with their household food situation wished they had more money for groceries and time to carry on their daily routine. Some wanted the government to increase allowances. This would enable them to have some money for food and reduce dependency on other resources.

Some participants said food was not cheap and if the basic food products were priced low or the government increased welfare money they would have a different food situation. Other supports they wanted were the ability to grow their own or community garden, farming, and deer hunting. Other expectations they had included knowledge in budgeting, cooking training or nutrition education, and finding a safer and better job. This shows that participants employed different coping strategies and expected help to have a different household food situation.

4.3.6.1 Male participants

Participants used at least one of the following methods of food acquisition in a crisis (a) food bank, (b) family help and (c) borrowing and recycling.

We use other options like the Food Bank or um this other place Guadalupe House cause they have you can order a hamper or bag of groceries once a month. As long as it's not on the same week as you went to the Food Bank. . . . Family not so much because they're doing this the same thing too like running into the problem at the end of the month (Interview with C31)

And I'm not able to buy, that's why we went to the Food Bank yesterday (Interview with C101)

we have to start borrowing money from people or like depending on like cans and stuff like juice boxes and things just little things that we can exchange for money from the bottle depot and that'll help a little bit eh we don't get very much for that (Interview with C41)

4.3.6.2 Female participants

A variety of coping strategies were described. Participants obtained food by visiting the food bank, Friendship Inn or their family. They borrowed money and asked for a ride to store. Some got helped by their friends or parents.

Go to the Food Bank or go to the Friendship Inn (Interview with C62)

Um go to the Food Bank or we borrow money from family to get some more groceries (Interview with C42)

I was basically getting my check for myself and he was getting his own check by himself. And now that we're together. As a couple we make more money. But as an individual I don't make much money. Also go to the food bank and other programs (Interview with C52)

we got friends that help us out. That we go there and eat, or else they'll give us groceries to come home with, with family. I go to Salvation Army or friendship inn (Interview with C102)

Yeah like I have family support from my sisters. If I need whatever they find that I need um need some food, they either give me take me shopping to go buy something (Interview with C32)

4.3.7 Theme 7 - Food affordability and accessibility as challenging

Participants said their favourite foods were available in the stores. However, they were not always able to afford these foods. Thus, food consumption in a typical day varied among participants. Some had plenty of options while others had fewer.

4.3.7.1 Food was available but accessibility varied

Access to food was an issue for some participants but not for others depending on their income and how far the grocery store was from their residence or if they had a vehicle. For some

participants grocery shopping was convenient because they lived within walking distance of a store. Transportation was a challenge for those participants who had to walk or find a ride for grocery shopping. For most participants the means of transportation were bus, a ride or walk. Taxis were also used if there was enough money or grocery purchases were too heavy to carry home.

Food availability in the city. All participants agreed that food is available in Saskatoon but families with a relatively small income may not have reliable access at all times. Participants said that there were plenty of foods but the cost was an important matter. Vahabi and Damba (2013) also found that an insufficient financial resource was the main barrier to food security among newcomers in Toronto.

Well there's lots of food, it's just a matter of cost (Interview with C101)

It's available but you can't always afford it. So then you settle for like the foods I just said, the rice, the noodles, like my basically stuff that are cheap. (Interview with C12)

The majority of research participants in the current study indicated that they shopped in supermarkets. Some of the research participants had gardens during the summer and grew as many vegetables as they could.

we growing up with always have garden I still have garden with my family today and so you know during the summer we always try to grow many fresh vegetables as we can. (Interview with C71)

Some of the participants were not satisfied with what stores offered in terms of price and quality of foods. According to Haynes-Maslow, Parsons, Wheeler and Leone (2013) stores in low-income neighbourhoods often do not carry fresh fruit and vegetables and have nutritionally low quality food. Cassidy, Jetter and Culp (2007) have stated that residents of low-income communities generally pay more for food than higher-income areas neighborhoods. Low-

income urban centers usually have fewer and smaller stores and foods are priced relatively higher than other neighborhoods. Stores that have lower food prices usually avoid low-income areas.

Food accessibility in the city. After income, transportation was the main issue related to access to food. The location of a food store for most of the participants was not convenient. Most of them described taking the bus or walking or getting a ride because they did not own a vehicle. Caraher et al. (1998) have stated that low-income people use a variety of transport means for shopping such as walking, car and bus. Some participants in this study walked, especially in summer, to get groceries and occasionally took a taxi home. Some participants had to walk as much as about an hour and a half to reach the nearest grocery store.

I'd say it's quite a ways away it's like almost on the other side like to walk there is probably about maybe an hour and a half just to get there at Superstore but I haven't seem to find a Safeway around. So it's been basically Superstore (Interview with C11)

Tsang, Holt, and Azevedo (2011) also found that the most common barrier to using food programs for low-income residents in Cobourg, Ontario was transportation. They also found that many respondents walked to the stores but carrying their purchases home was problematic. For some participants of this study accessibility to a grocery store was not an issue because they lived within walking distance or owned a vehicle.

The majority of research participants and key informants believed that there were not enough food stores throughout the city, especially in the core neighbourhoods. The core neighbourhoods in Saskatoon have higher concentration of residents who live in poverty (Kouri, 2013). Participants were aware of the locations of stores and the changing and the closing and opening of stores in the city. It was also believed that quality food was not available to the residents of the West Side. Moreover, the Good Food Junction Cooperative, a grocery store in

the community economic development centre Station 20 West, was still under construction at that time.

Some participants expressed concern over difficulty accessing food stores. However, some participants had a store in their neighbourhood but the store did not carry as much food as a large store did or food was not perceived to be priced as cheaply as other stores further away from participants' homes. Freedman and Bell (2009) have stated that supermarkets are generally located in communities where relatively wealthy people live and convenience stores and smaller grocery stores are the main stores in low-income areas. These supermarkets sell a wide variety of food items while more stores in low-income communities sell less healthy foods. Moreover, compared to chain supermarkets, foods are costlier in convenience stores. Thus, Freedman and Bell found "an inverse relationship between community access to chain supermarkets and rates of food insecurity" (p. 826).

However, some participants believed that there were sufficient stores all over the city. They further said that it was easy to shop and that enough food was available. In their opinion, everybody in Saskatoon had access to as much food as they needed and if there was any issue accessing food it would be lack of money or poor choices or spending money on other items instead of food.

We got stores all over the place so (laugh) that's that's easy, yeah (Interview with C101)

Access to food varied in certain conditions such as amount of food purchased, season and by health condition. For example, one participant did not need any transportation most of the time but needed it if the purchase was heavy. Likewise, one participant walked to the store in the summer but in cold winter sometimes took a taxi home. A participant with asthma could not

carry too much food home because the store was far from her residence and thus she had to take a taxi.

This subheading reflected participants' awareness of their food environment. According to Health Canada (2013), the food environment includes "features of the community, such as the number and kinds of food outlets in people's neighbourhoods, which is often referred to as geographic food access. It also features the consumer experience, such as the kinds of foods that are available, affordable, and of good quality" (p. 5).

4.3.7.1.1 Male participants

Some participants had food access issues. The main issues they mentioned were not enough money and transportation.

so the majority of our community I think has more than enough food but the few that don't their issues would be money yeah but generally speaking I think our community is very well to do and can has access to as much food as they need (Interview with C91)

Really close. We can walk to 2 major grocery stores in less than 5 minutes. Yeah they are very close. We just walk over from back of the house and down the back alley and there is a Co-op, you walk 200 m more there is Superstore (Interview with C71)

no that's not an issue for us. I mean we do live within walking distance of one grocery store (Interview with C91)

It's far. Well, there's one that's close on Avenue W but they don't have all the good stuff like the super value has, superstore (Interview with C61)

4.3.7.1.2 Female participants

Some participants were concerned about food accessibility, availability, quality or cost. When they could not afford to buy what they wanted they bought food that they could afford. Inability to afford desired food appeared to have made participants to resort to less nutritious

food. Transportation was challenging for some participants. They usually walked to get groceries and sometimes took a taxi home.

It's cheap there. It's not all there (Interview with C62)

Superstore is in Confederation. It's quite away. We'll take the bus, if we have enough money we take a cab home. Sometimes we have enough money to spend a couple more on groceries and I can't carry too much because I have an asthma. So sometimes we take a cab home (Interview with C32)

I can walk to two different grocery stores (Interview with C92)

It's about 4 blocks away, it's a big it's the big grocery store for this area so it's not far at all. We usually walk to get groceries so. Well, sometimes we'll take a taxi home; usually we'll just walk to the store (Interview with C42)

4.3.7.2 Food preferences

Participants indicated liking of a variety of foods and mentioned that there were many similarities in food preferences among the family. For some participants their favourite food included traditional food such as Bannock and rice. A few participants were vegan or vegetarian.

kale and uh broccoli and grains, rice, millet, and um I like tofu and hemp and chickpeas ya those are my fave, carrots. Well, we're mostly vegan in our home (Interview with C82)

Participants in this study described their favourite food that they typically eat. Some participants described their favourite foods as “nothing special” and “the usual things”.

steak, eggs, bacon, hash browns now I don't know, normal meat, pork, potatoes, corn, yeah. Nothing special, just the usual (Interview with C61)

with our income we can't really get the things we want you know what I mean so we just get the usual things I usually buy foods that I'm used to you know . . . cause with the money we have it's usually what we can afford so we don't usually go off a that list or anything. We just stick to what we can afford right (Interview with C41)

Most participants said they ate the same foods from day to day and week to week because they did not have enough money to make food choices or planning meals was hard. Engler-Stringer (2011) found that trying new foods and cooking new dish for participants in her study were challenging for lack of food budget as she stated that food choice was largely dictated by the cost of food for the low-income people in her research.

Participants mentioned that their food preferences were similar to other members in their household. They claimed that they did not hear complaints about food cooked in the house. Not hearing complaints was used by them as evidence of having similar food preferences. If there was any difference it was accommodated. For example, participants who liked spicy food made their food to their taste but less spicy food for other members. Vegetarian parents bought meat for their children. Food preferences appeared to be most strongly affected by the money available.

Special needs and health concerns also appeared though as a factor in food preferences. One couple had a child who needed gluten free food and this child liked to eat tofu, chickpeas, meat, rice and quinoa. The specific junk foods that parents described not liking it when their children ate them were pizzas, hamburgers, French fries and energy drinks.

umm well my 20 year old daughter likes to pretty much eat what we eat but she's gluten free because she doesn't tolerate gluten well but she likes a lot of tofu (Interview with 82)

my oldest son is a total junk food junkie. I mean he just totally rejects our style of eating which is umm part of my wife explained about macrobiotics and you know mainly beans, rice and vegetables and you know we make our own sour dough bread and all that sort of stuff and he won't touch any of it. Just eats pizza and chips, drinks pop and stuff like that cause he has his own job so he buys his own food. The 2 younger boys, they're 11 and 7. They pretty much eat everything I will eat or my wife and I (Interview with 81)

Gender differences in food preferences. The intent of this study was not to capture in a formal way the differences in food preferences between male and female participants. However, it was found that there were many similarities in food preference but a few differences were also found. Fruits were not as frequently mentioned as preferred by male participants as by female participants. Female participants also talked about traditional Aboriginal foods, vegan and vegetarian food, as well as gluten free food. They talked about food allergies and requirements of special diets but male participants did not talk about these matters. This may indicate food matters were more important to female participants than male participants.

This study noted a rough indication of gender difference in food preference but was unable to state confidently because the food preferences were asked in general terms. Fraser, Welch, Luben, Bingham and Day (2000) found gender differences in food consumption in that “men ate meat, eggs, milk, and high-sugar foods more frequently, but fruit and vegetables less frequently than women” (p. 26). They could not determine the reasons for men’s food preferences and proposed that social and physical factors may guide their choice. Consumption of meat may be considered masculine and men may prefer to eat energy-dense foods because of their bigger body size and energy expenditure than women. They also noted a relationship between diet and education and said the educated persons often had greater nutritional knowledge and also more financial flexibility to satisfy their food preferences.

According to Courtenay (2003) women generally lead healthier lifestyles than men, men have less healthy dietary habits than women and compared to women, men eat more meat but less fruits and vegetables. In general, women are more likely to follow the dietary guidelines than men (Turrell, 1997). For low income people, prices of fruits and vegetables may be one of the reasons for lower consumption of these foods (Cassady, Jetter, & Culp, 2007). Some foods

are considered masculine and some feminine. Association between gender and food was also reported by other authors. Eating meat suggests masculinity and vegetables and fruits femininity (Prattala et al., 2006; Sobal, 2005). However, this study was not designed to know about the gender difference in food consumption because participants of this study received food assistance from organizations that distributed food either free of cost or at reduced price. But, it could be an area of future research.

4.3.7.2.1 Male participants

Participants mentioned their food likes and dislikes, but no foods emerged as being commonly mentioned.

umm I like bacon and eggs. Yeah I'll eat that any time any breakfast, dinner, supper. French fries, uh salads, um ribs, um chicken, I like chicken uh any prepared any way, uh spaghetti. Yeah and that I can't really think of lots right now. I like soups lots of soups like stews and stuff with a lotta of grains like umm barley anything kind of like beef stew stuff like that yeah, any bread bannock, ya stuff like that (Interview with C41)

We usually get potatoes, ichiban and like vegetables buy some hamburger, chicken and tomato soup and pasta, macaroni or spaghetti and some fruit once in a while (Interview with C31)

4.3.7.2.2 Female participants

They liked a variety of foods including traditional food. For some, their family did not have the food of their choice.

Umm we always have bread, umm milk, fruits, like bananas, oranges, umm hamburger, pasta. Those are some of our favorite foods (Interview with C42)

Anything's fine with me. Well, my favorite food is my traditional food. Meals like deer, moose, duck. I think that's yeah rice, wild rice, potatoes and beets and that's it (Interview with C32)

I dunno like pizza pops, noodles, Chinese food, not really those are like my favorite foods I guess. . . . Being low income family you don't really have the choice of what you wanna eat. (laugh) That's what I think (Interview with C12)

4.3.7.3 Variations in meal patterns

This subheading focused on what participants ate in a typical day. Food taken in a typical day varied among participants depending on what was available to them, how busy they were and how expensive the food was. Many participants started their day with breakfast and usually took three meals in a typical day. Usually supper was big meal for many participants.

Well, I'm famous one for breakfast. I generally have bacon and eggs and or pancakes or cereal I mean varies. Well, lunch I usually pack a couple sandwiches or whatever you make for supper the night before. I usually take that kind of a lunch. Well, it's [supper] usually the biggest meal of the day. We don't eat a heck a lotta steak because it's too damn expensive but pork chops, spaghetti, with some meat sauce that kind of thing sausages. (Interview with C101)

On the other hand, some skipped breakfast. Dietitians of Canada (2013) recommended eating three meals and not to skip meals especially breakfast to ensure the nutrients needs are met. DC also stresses the recommendation to eat more vegetables and fruit than any other types of food.

Oh no we don't eat breakfast then we usually eat about midday so and we usually fry up something like potatoes or something and that's about it then we will have bigger meal later on like pasta or something (Interview with C22)

Working participants packed lunch to eat at work. They usually packed sandwiches. Some participants also ate snacks throughout the day. Some participants had limited choice and ate whatever was available. They also consumed leftover food. Congruent with this finding Nesbitt et al (2008) also found that respondents in their survey ate meals consisting of leftover food. For some other participants what they ate in a typical day was dependent on what kind of food they got from the Food Bank. One couple usually went to the Friendship Inn for lunch.

It all depends whatever kind of food I can get. Sometimes we run out of food, or just about running out of food and that's when I'll go to the Food Bank and I'll get food from there. But their food last for two days and then we gotta wait till the check comes in and buy more (Interview with C61)

well, usually at supper time we usually cook uh make some soup or whatever you know. But in the day time we're usually out. Me and my wife go to the Friendship Inn or the Friendship Center. . . . uh don't really eat breakfast (Interview with C31)

4.3.7.3.1 Male participants

Some participants did not eat breakfast. Those who ate breakfast mentioned that cereal, toast, jam, bacon, eggs and pancakes were commonly eaten foods for breakfast. Some participants had sandwich for lunch at work. For home-cooked lunch, foods mentioned were rice and vegetables. Soup, pasta, spaghetti, meat, vegetables and rice were commonly mentioned foods for supper.

I work in a remote location so I stay in a camp so there's plenty of options. . . . at home it will be soup and sandwich more likely for lunch and then for the supper we would be hoon I had pasta last night I mean we have a variety of things. Tonight we gonna have roast beef and potatoes and carrots. So usually I eat some sort of vegetables potato pasta or rice. (Interview with C91)

I go without breakfast every day. It's just coffee and out the door I go (laugh). Yeah just a sandwich and supper that's about it. It's usually assorted meats doesn't matter if it's bologna or ham or salami just throw it on the bread, there we go (laugh) (Interview with C11)

pretty much anything that's in the fridge whatever is available doesn't really matter just like (Interview with C21)

4.3.7.3.2 Female participants

Participants ate cereal, porridge, toast, peanut butter, jam, coffee, fruit juice for breakfast. For lunch they ate vegetable soup or meat soup, tacos, burgers, sandwiches, noodles and for supper Hamburger Helper, meat, vegetables, rice, potatoes.

cereal for breakfast, or oatmeal. For lunch sandwiches, or noodles, for supper we usually have like a meat, vegetables, and like either rice or potatoes or something. That's a

typical day. And then some fruit throughout the day, snacks and stuff so (Interview with C42)

in a typical day we usually start the day with a breakfast cereal homemade granola then for lunch is almost always sandwiches. If my kids are at home it's often peanut butter and jam if my kids are at school, they can't take peanut butter so it's usually a sandwich meat for and then fruits. And then for supper usually some kind of meat and a salad and we haven't had many salad in the last while so let's think last night we had a potato salad and we had leftover steak and then a rhubarb dessert yeah so we don't eat steak very often a lot more it's ground beef, yeah (Interview with C72)

Well, I would eat my fruits and vegetables and some of my comfort foods. Depending on the day I start my day with either a cold or a hot cereal with milk and toast with peanut butter and jam and a cup of coffee and um sometimes a fruit juice. For my dietary supplement I'm on Metamucil so and it also helps with cholesterol. Um my lunch I usually have a sandwich and soup. (Interview with C52)

usually I dunno cereal or sandwich and soup and then sometimes noodles. We most of the time go to the Salvation Army to eat (laugh). They'll give you like potatoes, vegetables and a piece of meat, salad (Interview with C12)

Theme 8 - Key informants worried about accessibility but not availability of food

Key informants said that food was available in Saskatoon but for many of their clients accessibility was challenging. The majority of key informants thought the local food system was not working in support of low income people. Moreover, decisions made by others, for example, big corporations may influence their clients' food access and choices.

I think we have adequate food for the community. Sometimes the system does not work, that is, food bank is open office hours but some of our clients work and can't get there for the food. The free meals are at set times no exceptions and some clients have trouble getting down for that exact time (Key informant 9)

Big corporations are problem (laugh). Well, I guess they cater to people who are higher income, middle income to high income who are uhhm who have vehicles. So affordability and accessibility both contribute to the situation (Key informant 6)

Uhh, many things. I think a big part of it is the grocery stores have moved out. That's a big problem. There used to be grocery stores in core Saskatoon and they closed and moved (Key informant 3)

Key informants said there is adequate food available in Saskatoon but they were concerned about accessibility. Access to food was challenging for their clients for several reasons such as limited income, transportation, moving of grocery stores to the outskirts of the city, small stores not carrying fresh fruits and vegetables and inconvenient access to the food bank for some clients due to its opening hours.

According to the key informants, the overall food situation in the city varied depending on income of people and their neighbourhood of residence. For family with insufficient income the situation was poor. For those who had money and a vehicle the situation was good or moderately good.

I think that the big grocery stores are catering to higher income people with vehicles basically. They might advertise all these low prices and everything but to get to you is a pain (Key informant 6)

So for middle income and upper income people what makes our food system and moderately good is uhh if you have a car and you have money you can access good food (Key informant 4)

Key informants said both affordability and accessibility contribute to the overall food situation of their clients. They said the food situation that their clients had was not satisfactory because some of their clients did not have enough money to buy food, pay rent, own a vehicle and buy kitchen equipment.

They don't have enough money to purchase the basic necessities like bread and milk, canned foods like not even that that's why they come to us (Key informant 10)

people were taking their food money to pay the rent (Key informant 6)

Some key informants thought that for some clients finding help with transportation and childcare were difficult. Other clients were unable to find help available to them as they did not know about the charitable organizations or it was hard for them to physically access services

provided by these organizations. New residents had challenges accessing and understanding how to access services available to them. Key informants mentioned that some of their clients had mental health conditions and addiction issues that affected their ability to make changes and decisions.

for example struggling going with social assistance not having enough money to buy food and pay for housing and all other things they have . . . Transportation can be a challenge as well if you don't have a car things are not within walking distance especially if you are a man with a bunch of kids how do you walk and get your kids home without the groceries. That's difficult (Key informant 3)

accessibility is an huge issue. Certainly transportation for a lot of our clients they don't have vehicles of their own so they require cab or buses to purchase groceries (Key informant 8)

I think our public transportation system does not always work the best for people to get food. So they are not necessarily running to the between the low income neighbourhood to food stores directly. So, sometimes it takes people quite a long bus ride to get to a food store. I think for people who are poor with children, shopping for food is a lot harder because you have to take your kids with you so you cannot leave your kids with day care, with the child care work or a baby sitter (Key informant 4)

there is a challenge for them to find this location, this office and there is a challenge of them actually understanding what the center is all and what we do. There is challenge there is lot of students don't know about us (Key informant 10).

Key informants mentioned that in addition to above, other factors such as housing, knowledge about nutritious food and time affected access to food for their clients.

Money, time and the culture we live in and health issues and so that's very frustrating. We met a man last year who has had his rent go up so much. He is paying a 1000 dollars a month for an apartment in Meadow Green, one of the lower income neighbourhoods here. And he needs heart medication but he can only afford to take every second month. So he cannot even afford to eat properly. He can't. His rent is so much so he cannot afford to buy his medicine and he cannot afford to eat properly (Key informant 4)

a lack of knowledge about nutrition contributes to the choices that they may make (Key informant 3)

the nutrition issues is knowledge of what is what is good and what isn't good for your body. Our clients in general, are under educated and for them to be able to know what

the salt content and what the sugar content and the carbohydrates and the trans-fat it's not something that they are educated about (Key informant 2)

there is a lot of lack of basic nutritional knowledge, lot of people are not aware of what healthy eating really is. . . . Uhm cooking skill is really big one. Many people I find don't have basic cooking skills (Key informant 3)

Some of our clients do not have the knowledge on what is a healthy diet. They do not know how to prepare healthy food. The cost is usually higher for fresh fruit. Some rental places do not have fridges or stoves that work properly causing some spoilage. Some clients have addiction issues and food is not high on their priority list (Key informant 9)

Key informants mentioned that their clients used different community resources to access food. Clients accessed resources such as the food bank and churches. They were involved with CHEP and purchased Good Food Boxes. Some participated in growing community gardens. Key informants reported that their clients made sure that their children accessed food through the school lunch programs. Summer was a problem though because they had to stretch their budget even further during July and August because children were out of school. The other different strategies they reported knowing their clients were using were eating at the Friendship Inn, visiting relatives, borrowing money to buy food and skipping meal.

Our clients know all the places to get free meals and food. They all go to the Food Bank and the majority buy the cheapest foods available (Key informant 9)

They also do gardening with uhh or CHEP's gardening program (Key informant 6)

Well, some people do without, so some people know what they should be eating but I think they cannot afford to eat. They do go to the food bank or they buy the cheaper stuff at the store so they eat a lot of pasta (Key informant 4)

Well, using the Food Bank sometimes getting food hampers from other agencies like they may contact Churches, sometimes they borrow money from family or friends to buy a few things to feed their kids, sometimes they are eating at the Friendship Inn where they can get a meal so lots of strategies like that (Key informant 7)

For some of the charitable organizations, the summer and Christmas were the busiest time as many children were out of school in summer.

Some will access food through the food bank, some will make sure that if their children are in school, they'll access foods through the school lunch programs, and that's why summer is such a problem. Kids don't have access and that will stretch the parent's budget even further during July and August when all of sudden they have all these mouths to feed and the kids are not going to school where there are school lunches and snacks programs (Key informant 1)

Uhh summer time, July and August is one of our busiest was probably the busiest time in the year and versus Christmas everybody associates the food bank being extremely busy at Christmas and we are busy at Christmas because we do a Christmas hamper uhhmm but in July and August is our busiest time because all of those school programs that the kids are getting breakfast and lunch at the schools are closed (Key informant 2)

Key informants suggested various ways to improve food situations in the community. These included (a) more community gardens, (b) cooking lessons in schools, (c) larger meal allowances for children and diabetic or handicap clients, (d) policy changes from the government, (e) more job opportunities, (f) enough money through disability programs for those who cannot work, (g) more equitable distribution of income, (h) a grocery store in the core area with reasonable price and quality, (i) alternative food distribution systems like Mobile Grocery Store, (j) education of nutrition and benefits of good nutrition and making healthy choices, (k) more affordable housing for low income people, (l) support for people who want to go back to school, and (m) transportation assistance.

I know there is lot of different types in uhh food insecurity issues that affect so many people so and some of them has to be policy changes from the government (Key informant 6)

Well, I would definitely like there to be a more equitable distribution of income (Key informant 4)

I would like to see more focus in school as kids are growing up on making healthy choices, in learning cooking skills, healthy eating education about things that would be important as well they are taught right from little the importance of healthy eating. . . .

Maybe even gardening could fit into that. Being able to grow your own food can eliminate a lot of barriers to healthy eating as well (Key informant 3)

More community gardens, cooking basic meals in schools including how to peel a potato and how to cook a tough piece of meat. Larger meal allowances for children and diabetic or handicap clients. More accountability on how their food dollars were spent (Key informant 9)

grocery stores, especially if their chains are moving out to the suburbs and they are closing their downtown locations or their inner core neighbourhood areas and people are forced then to take or spend some of their money on some sort of transportation to get out so that's why we are trying to bring stores back to the inner core area (Key informant 1)

4.4 Summary

This study found that food availability was not an issue for the research participants but in most cases affordability and access were. They all wanted to improve the food situation in their households by using their resources efficiently. Female participants were primarily responsible for making decisions about food to buy and were supported by their male partners. Female participants did most of the grocery shopping. Female participants were more involved and concerned about their food situation than their partners. Research participants worked to ensure to ensure that everyone in the family got the food that they liked to eat. Cooking and handling household chores were shared in the family. Feelings about the household food situation varied among all participants, but within couples they held similar views. Many participants experienced challenges in grocery shopping. Couples used different coping strategies when they ran low on food. Most of them used the Food Bank. Participants described the importance of support from family and friends in food management. They needed help in areas of income generation, transportation, nutrition knowledge and cooking skill.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The findings of this study provide insight into the experiences of food insecurity of research participants. The findings suggest that there is diversity among participants in the way that they experience and handle food insecurity. There were some gender differences between male and female participant's experiences of food insecurity. However, some similarities in their accounts were also found. The discussion below summarizes and provides some concluding thoughts followed by answers to the research questions.

5.2 Theme discussion

Theme 1, "Food decision-making was the domain of female participants," and theme 2, "Grocery shopping was the domain of female participants," indicated that most food decisions and grocery shopping were made by female participants. Although male partners provided some input into food decision-making, they took a relatively low level of responsibility in decision-making processes compared to their spouses. This may be a reflection of the attitudes of male participants towards women being more knowledgeable about food. This finding is congruent with statements in the literature (Levi, Chan, & Pence, 2006). Female participants were more available and interested in shopping, cooking, and cleaning than their partners and did the shopping most of the time. They believed they made more healthful food choices compared to their spouses. A greater role of women in food-related work may indicate an important contribution of women in providing and improving household food security. However, no attempt was made to see if such an association exists in this study.

Theme 3, “Cooking and related activities were shared,” demonstrated that couples helped each other in food related work. The literature says that women are responsible for cooking (Chenhall, 2010) and men usually do not enjoy cooking (Melanson, 2008). However, some male participants enjoyed cooking and cooked as much as they could especially on weekends or when they were not at work. This finding that some of the male participants in this study enjoyed cooking may be an area for future research. Theme 4, “Couples held similar views about their household food situation,” indicated that couples often agreed with each other about their household resources and the price, quality and types of food to buy. They also showed respect to the food likes and dislikes of their spouses and family members. These two themes did not show gender differences.

Theme 5, “Female participants felt more challenged than their spouses,” highlighted that female participants felt more challenged in shopping because they needed help in transportation and child care. The female participants were also more concerned about price and quality of food compared to their spouses. The fifth theme appears inconsistent with the third and fourth themes. For some participants shopping, cooking and doing household chores were routine jobs that did not bother them while a few female participants were tired of doing these tasks. The literature shows that all members in a household do not experience food insecurity in the same way (Hamelin, Beaudry, & Habicht, 2002). Variation in experience is not unusual because of the different dimensions of food security.

Theme 6, “Coping strategies,” examined the ways research participants dealt with their household food situation when they ran low on food. The most common coping strategy was to

visit a charitable organization such as the Food Bank followed by asking a family member. Both male and female participants adopted similar strategies.

Theme 7, “Food availability and accessibility as challenging,” indicated that research participants and key informants perceived that food was abundant in Saskatoon but for some participants affordability and access were challenging. The accounts of both male and female participants were similar about food availability in Saskatoon.

The key informants shared their knowledge and beliefs about the community and helped in recruitment of the research participants. They emphasized the importance of income generation, affordable housing and transportation for the residents of Saskatoon. They also stressed that school meal programs can be important to address food insecurity. Their accounts triangulated the accounts of research participants and increased the credibility of findings of this study.

Gender analysis indicated that female participants were primarily responsible for making decisions about food to buy, did most of the grocery shopping, felt more challenged by, and were more involved in and concerned about their food situation compared to their spouses. However, the study also found that female participants shared the in-home food-related work with their spouses.

Although it may be argued that there was gender inequality as shown by the findings, gender equality and gender equity were not the focus of this study. In this study, questions regarding shopping, cooking, and food decision-making practices were asked. It was not intended to know who controls the household resources but rather how participants managed food related activities and whether there were gender differences. Similarly, it was beyond the

scope of this study to know if the couples were egalitarian or held traditional views about their gender roles. Results may have differed if questions had been asked related to gender equity and equality.

This study involved a small population composed of almost equal number of male participants from Aboriginal, non-Aboriginal and other groups but more Aboriginal female participants. The demographic profile of the participants indicated that male and female participants had more or less similar levels of education and employment status. Three male participants and one female participant were employed. Two male participants worked part-time or seasonally while five female participants worked part-time or seasonally. One male and one female participant did not prefer to disclose their employment status. Couples were not asked about their family income. Although people with low incomes may be more susceptible to food insecurity, people with higher incomes may also have food security issues. This study suggests that people in Saskatoon experience food insecurity because of not having enough money to afford food and not because of food availability.

5.3 Research Questions

In this section, I describe findings in relation to the research questions.

Research sub-question 1: What is the lived experience of a man and a woman from the same household seeking food assistance and/or living on social assistance about decision making for what food to buy?

Research participants felt that making decisions about what food to buy rested mainly with female participants. The decisions made by female participants were supported by their male partners. Some female and male participants believed that male partners were not always

thoughtful about spending money whereas female participants were. Some male participants believed that female participants knew more about food and nutrition than they did while other male participants felt that female participants made the food decisions because the female participants usually take care of the house. Participants recognized that female participants were influential in making food decisions for the family.

There were many reasons for female participants making the decisions. Female participants said they knew about family needs and preferences. Their decisions were further guided by the cost of food, quality of food and time to do the shopping and cooking. Both male and female participants primarily based their food buying decisions on cost of food. Other factors included their interest in making food decisions and in eating healthy food. Thus, food buying decisions were made based on multiple factors.

Research sub-question 2: What is the experience of a man and a woman from the same household seeking food assistance and/or living on social assistance about food shopping and preparation practices?

Grocery shopping was predominantly done by female participants as they and their spouses believed that they were more available and interested in doing so compared to their spouses. Shopping was more challenging for female participants than their partners as they needed assistance in transportation and childcare. Sometimes they shared the task between partners depending on who was available to shop. Some male and female participants viewed grocery shopping as a source of stress if done together with spouses. Therefore, they wanted to do the grocery shopping by themselves. Shopping was also challenging if accompanied by children.

Female participants held a traditional gender role in food provision by doing grocery shopping more frequently than their spouses.

While shopping, many participants paid attention to the likes and dislikes of family members and bought food based on their preferences within their means. Participants bought packaged food, ready to eat food and raw food to be cooked at home. Many participants bought the same foods each time they shopped with minimal variation. To economize, they used many strategies such as making shopping lists, buying inexpensive foods or foods on sale, comparing food prices, shopping at more than one store if possible, and choosing the cheapest option within a food category. They shopped where they believed they got the best deal. Sometimes participants obtained food from gardens, the wild, and by visiting farms just outside of the city. There were several considerations that participants took into account in providing food for the family.

Research sub-question 3: What is the experience of a man and a woman from the same household seeking food assistance and/or living on social assistance about coping strategies?

Participants used different coping strategies when they ran low on food. Visiting a charity organization such as the Food Bank was the most typical strategy. Reliance on charitable organizations usually increased in the second half of the month. Another coping mechanism was seeking help from family. Family members such as a mother, sister or brother helped them out with money or food. However, some of the participants did not have or ask for family support and preferred to receive support from organizations like the Food Bank and Friendship Inn. To have a better food situation in their households, participants felt they needed more money, more grocery stores in their neighbourhood of residence, reasonable food prices, a vehicle and time to

prepare food. Other supports they wanted were ability to grow their own food at home or in a community garden, access to farmland, and an ability to hunt.

Participants said it would help improve the food situation in their community if there were more services and programs such as the Food Bank, Collective Kitchens and other CHEP programs, and more community gardens. A small number of participants participated in community gardening. Participation in other CHEP food programs was also low. Only three of the couples owned their own homes. Some of the renters were worried about the cost of housing. They made different suggestions for supports depending on their experiences. Some said programs that educate people about healthy eating and making healthy choices would benefit them. Some participants expressed concern over their health conditions and wanted to know how to manage their health through healthy diet. Other felt that what they needed were more opportunities for jobs, more money from the government and access to land-based opportunities to acquire food. Participants identified several factors to improve the food situation in their households and the community.

Research sub-question 4: How do a man and a woman from the same household seeking food assistance and/or living on social assistance perceive food security? What are their attitudes and beliefs about food security?

Some participants, when they spoke about their ability to feed themselves and their families, had different feelings about their food situation. Participants expressed feeling happy, sad, angry, frustrated, satisfied and even lucky about their household food situation. The food supply in many households varied over time and participants' feelings about their food situation

depended on their household food supply. Anxiety about running low on food was a common sentiment.

As couples, participants had similar views of their household food situation in terms of resources available to buy food, food choice, price, quality, ease of preparation, and cooking. To support the claim that their views of household food situation were similar to their partners, male participants said they let or helped their partners make decisions and agreed with them about food to buy and cook. They respected likes and dislikes, knowledge, skills, activities, and experiences of their partners related to food. Female participants said that their views were similar to their partners. They believed that their partners agreed with them regarding the food situation in their households as there were no complaints made by their partners.

Participants shared household responsibilities for food related activities. However, some female participants said that they were involved more than their partners in food related tasks, not necessarily because their male partners did not want to or were not interested in being involved but because they were not available or were busier. There were times when both partners cooked together or took turns depending on who was available to cook. Other family members also helped in cooking, serving and cleaning the dishes. Some male participants enjoyed cooking because it helped them to be creative and have fun. Mostly because of time availability, some male participants cooked meals either in the evening when they returned from work or on weekends. They cooked more on the weekends and holidays.

Most of the participants faced challenges in shopping, cooking, and doing household chores. Inadequate money, insufficient transportation and time were the important constraints identified by participants. Some of the female participants did not consider shopping, cooking

and doing household chores as a challenge. The participants and key informants in this research believed that the city lacked a sufficient number of grocery stores especially in the core area and that foods were not affordable on a regular basis. Concern about local transportation in Saskatoon was also expressed by the participants and key informants.

All participants and key informants perceived that food was available in Saskatoon but families with fewer resources may not have reliable access at all times. Participants said that their preferred foods were available in the stores. All participants were aware of the price of food and financial resources they had. Some participants felt they had a small budget for food and worried about price increases because after paying rent and bills they did not have much money for food. Some participants considered some food expensive and were not able to buy what they wanted to and bought food that they could afford. They were thoughtful about spending the money as evidenced by making grocery lists prior to shopping, comparing food prices, and buying food items on sale and in bulk. After income, transportation was the main issue they highlighted related to access to food. However, trips to stores varied among research participants depending on where they lived and how far the grocery store was from their residences. Most of the participant felt that the locations of grocery stores were not convenient. On the other hand, for some participants accessibility to a grocery store was not an issue because they lived within walking distance or owned a vehicle. Some participants had a store in their neighbourhood but the store did not carry as much food as a large grocery store did or was not as cheap as other stores.

Most key informants were not satisfied with the food situation in their community. They made a range of suggestions for short term and long term change. However, they stressed creating more job opportunities, receiving enough money through different programs, building

affordable housing for people with low incomes, building more grocery stores in the core area with reasonable prices and quality and improving transit service in the city. They suggested providing educational support to those people who would like to go back to school so that they may have better jobs and transportation. They also suggested providing opportunities for people to participate in community gardens, cooking lessons, and lessons to make healthy choices and learn the benefits of good nutrition. They also recommended providing larger meal allowances for children and diabetic or disabled clients, alternative food distribution systems like Mobile Grocery Stores, and respect for people experiencing challenges.

It has been documented in the literature that poverty is the root cause of food insecurity (Dietitians of Canada, 2005). Consistent with this, food insecurity in Saskatoon is due to the low income of the research participants and not because of food scarcity as revealed in this study. Therefore, addressing economic, housing and transport problems as suggested by the participants and key informants is necessary to improve food insecurity. Although all the participants in this study were seeking help, there was variation among them. Some of them repeatedly sought help and others did so less often. Policy makers and health professionals should be aware of this diversity and tailor programs intended to improve food security in Saskatoon.

Even though financial constraints were the major factor causing food insecurity, their gender roles were important in their household food management. Because men and women may be affected differently by household food insecurity (Coleman-Jensen, Rabbitt, Gregory, & Singh, 2015), gender aspects are important to the four dimensions of food security, namely, availability, access, utilization and stability. There were the gender differences in food decision-making and grocery shopping in this study. The female participants were more involved in these activities and felt more challenged in shopping than their partners. These were no gender

differences in cooking and doing related work, coping strategies, and views about their household food situation. Analysis of the roles and responsibilities of women and men and their capacities, constraints, opportunities and needs help not only understand issues related to household food security but also in policy planning.

Household food insecurity in Saskatoon is being addressed by private organizations by providing food for free or at reduced cost. Some community gardens and other food-based programs are available. However, no government supported programs to achieve food security in Saskatoon were available (J. Code, personal communication, July 16, 2015). The only program in place was the Nutrition North Program for residents of northern Saskatchewan.

This study provides policy makers, health care providers, and those working with food insecure people with a broader understanding of the experiences, feelings, needs, concerns, problems and suggestions of people experiencing food insecurity in Saskatoon. Providing essential background information about the gendered nature of household work may help in identifying effective responses.

5.4 Recommendations

The following recommendations, based on the research findings, may help in the development of policies that help people with limited resources in Saskatoon have at all times sufficient, safe, and nutritious food that they prefer to eat.

The recommendations related to gender and the study findings include:

1. Policy makers should consider gender when developing policies that might affect the food security of families. Females should be recognized as having important roles in feeding the family.
2. The development of programs and services related to helping families become more secure should recognize and address the role of women. Recognizing the role men play in ensuring household food security is also important. Therefore, integration of gender dimensions in the design and implementation of food security policies and programs is important.

The above recommendation was based on this study's findings related to gender. The following suggestions are not specifically related to gender but are also based on the findings of the study.

1. Policymakers need to consider implementing programs that increases access to nutritious food to the research participants and address barriers to food security.
 - a. More opportunities for income generation so that people can have diets that meet the Canada Food Guide recommendations.
 - b. Considering current cost of food, rent and transportation in Saskatoon, benefits including welfare from the government need to be reviewed.
 - c. Discounted bus passes or better bus routes connecting core neighbourhoods and supermarkets are needed. Other options to consider are to increase number of grocery stores in the core neighborhood of the city or subsidizing healthy foods sold in convenience stores.
2. It was recognized by key informants that July and August were difficult months for many parents to feed children when they were out of school. Feeding supports for the summer

months should be considered. Government should provide a safety net for immediate relief and policies and programmes that enable people and communities to achieve food security.

3. It would be interesting if a large number of couples were recruited for future research to compare the findings in various demographic groups.
4. It would also be interesting to examine the experience of research participants immediately after a big family or social event such as Christmas. In this study, the interviews with couples were conducted during July 2011 - January 2012.

5.5 Study limitations

Several limitations arose in planning and operationalizing this study:

1. The study relied on one interview per participant. Multiple interviews, as suggested by many, may have provided the opportunity to explore the issues in more depth.
2. There may have been effects related to me, as a doctoral student, interviewing individuals with education level high school or less. The ensuing power imbalance may have affected how participants responded.
3. Being a male interviewer and of another culture, may have affected the participants' comfort level, especially of women, in talking to me about food security issues.
4. A small number of participants were included and they were self-selected.

5.6 Future research

There is a great deal of information in the literature about food insecurity but little about how gender roles affect access to food in a household. This study explored the experiences of couples seeking food assistance that helped understand the household food security and gender relationship in Saskatoon. In this study, decisions about food to buy and grocery shopping were mainly done by female participants. Female participants were concerned about the cost of food but male participants, according to their spouses, were less sensitive to prices. Food shopping behaviour and beliefs of males can be an area of future research.

Although the research participants included in this study came from Saskatoon, a more extensive study is needed to obtain the big picture of food security of couples living on social assistance from other parts of the province.

Further research is required to understand the influence of gender roles in food consumption in similar populations. Future research should be undertaken to explore if or how gender roles of individuals living in a relationship with a member of the opposite sex affects access to food in different situations such as in

- Aboriginal, non-Aboriginal and immigrant populations
- Families living in rural and urban settings
- Low income, moderate income and high income families with an experience of food insecurity
- Canada and other countries where gender might be linked to households food access
- While this study was being conducted, there was no report of a natural disaster in Saskatoon. Study of food insecurity after disaster or in emergencies would be an

interesting area of future research. Similarly, seasonal variation or immediately after big family events such as Christmas would be other areas of research.

The behavior of couples under different circumstances of food supply and changes in financial situation in the household would be an interesting area of future research. Because of the complex nature of food security and gender, the factors that influence food intake or eating behavior in men and women and how, when, and for whom these factors matter most should be explored in future research. The literature suggests that compared to men, women are usually affected more in food insecure households. Moreover, mothers are known to reduce the amount of their food to feed children but it could be not found in the literature if fathers do the same. It would be interesting to know the roles parents with and without children play in improving household food security.

5.7 Summary conclusion

Food insecurity has been a chronic problem in Saskatoon. Gender differences were found in making decisions about what food to buy and doing grocery shopping where more involvement of female participants than their partners suggested that female participants were key to household food security. Interventions improving food security should incorporate gender issues.

For the research participants, living with limited resources meant having to struggle and worry about food. Living together meant helping each other in handling household chores and showing care in having the food that they liked to eat. The research participants and the key informants both mentioned that Saskatoon had sufficient quantities of food available round the year but the number of grocery stores was inadequate. Financial ability to purchase food and access to food were the main issues for research participants.

The gender perspective in food insecurity is scant in the literature. Therefore, little is known about gender and food security linkage. This study found that female participants bear the primary responsibility of household food work. This study contributed to advance the knowledge of the relationship between gender and food insecurity in Saskatoon households seeking food assistance and/or living on social assistance.

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APPENDICES

Appendix A: Saskatoon local organizations for the Saskatoon Food Charter

Saskatoon Food Charter (Principle: Food Security & Production)

- Little Urban Garden CSA
- Pine View Farms CSA
- Keith Neu's CSA
- Steep Hill Co-op
- Souleio
- Saskatoon Co-op
- Weczeria
- Truffles Bistro
- Wanuskewin Heritage Park
- Local Bounty
- Saskatoon Farmers' Market
- CHEP Good Food Inc.
- Saskatoon Health Region Food Charter
- CHOICES
- University of Saskatchewan Horticulture Club
- Saskatchewan Organic Directorate
- National Farmers' Union
- Beyond Factory Farming
- City Park Community Garden

- Riversdale/King George Community Garden
- Nutana Community Garden
- Varsity View Community Garden
- Saskatoon Food Bank & Learning Centre
- We Are Many (WAM)
- Rooted
- Escape Sports
- Little Green Thumbs Saskatchewan
- Heifer International
- Core Neighbourhood Youth Co-op
- Muskoday Organic Growers Co-op
- Affinity Credit Union
- Oxfam Canada
- Footprint Design

Saskatoon Food Charter (Principle: Food Security & Justice)

- Saskatoon Food Bank & Learning Centre
- Public Health Nutritionists of Saskatchewan Working Group
- Friendship Inn
- Salvation Army
- Saskatchewan Indian & Metis Friendship Centre
- Saskatoon District Labour Council
- Saskatoon Community Clinic

- Public Health Services, Saskatoon Health Region
- CHEP Good Food Box Inc.
- Open Door Society
- Prairie Women's Health Centre of Excellence (PWHCE)

Saskatoon Food Charter (Principle: Food Security & Health)

- Breastfeeding Matters
- West Winds Health Clinic
- Good Food Junction
- SWITCH
- Federation of Saskatchewan Indian Nations
- Saskatoon Health Region

Saskatoon Food Charter (Principle: Food Security & Culture)

- Open Door Society
- Local Bounty
- Saskatoon Folk Festival
- Federation of Saskatchewan Indian Nations

Saskatoon Food Charter (Principle: Food Security & Globalization)

- National Farmers' Union
- Canadian Labour Congress

Other:

- We Are Many (WAM)
- Better than Bottled
- Transition Saskatoon
- Turning the Tide (R)evolutionary Media

Appendix B: Letter of invitation

Invitation to Participate in a Research Project Re: Food Issues in Households in Saskatoon

You are invited to participate in a research project conducted by a Ph. D. Candidate at the College of Pharmacy and Nutrition, University of Saskatchewan, Saskatoon. This study aims to investigate how male and female members of a household behave towards acquisition of food, food practices and management and address food matters.

Your participation is very important to help understand the ways man and women deal with the food issues. You may be benefited in the long-term when the results of this study are used by policy and program makers to improve food access.

You will be interviewed about your experiences with food issues and social roles. The approximate duration of your participation will be one hour. The information you provide will be kept confidential and used only for this study. The results of the study will be reported in aggregate form. The report will not include any information that can identify you.

Your participation is completely voluntary and you are free to answer only those questions that you are comfortable with. You may withdraw from the research project at any time and your responses will not be used.

Please note that this study has been reviewed and received ethics clearance through Behavioural Research Ethics Board at the University of Saskatchewan (Approval/File #/date).

If you are interested in learning more about this study, please contact Rajesh Thakur and/or Dr. Shawna Berenbaum and more details will be provided.

Thank you for your cooperation.

Yours sincerely,

Researcher:

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Faculty Supervisor:

Dr. Shawna Berenbaum
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Appendix C: Letter of invitation with logo



Invitation to Participate in a Research Project Re: Food Issues in Households in Saskatoon

You are invited to take part in a study being conducted at the University of Saskatchewan, Saskatoon by a student researcher. This study will be looking at the food issues of households as they are described by both males and females. The results will help us better understand household food issues and be helpful to policy and program makers in improving food access.

You can join the study if you live together with your partner and child(ren). We would like to talk to you and your partner separately about your household food experiences.

Your participation is voluntary. During the interview, you may respond/not respond to any questions as you wish. You may leave the study at any time and your responses will not be used. This will not involve any penalty or loss of benefits to which you are entitled.

The interview will be 60-90 minutes long and it will take place at a time suitable to both you and the researcher.

The information you provide will be kept confidential and be used only for this study. The results will be reported in summarized form so that it will not be possible to identify you.

Please note that this study has been reviewed and received ethics clearance through Behavioural Research Ethics Board at the University of Saskatchewan (Approval date: May 13, 2011).

If you are interested in participation or learning more about this study, please contact Rajesh Thakur and/or Dr. Shawna Berenbaum and more details will be provided.

We want to hear from you.

Thank you.

Sincerely,

Researcher:

Rajesh Thakur

Faculty Supervisor:

Dr. Shawna Berenbaum

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Appendix D: Sign-up sheet for many people
 “For Couples Only”

Sign Up sheet

You are invited to take part in a study being conducted by a student researcher on food issues people have in Saskatoon.

You can join the study if you live together with your partner and child(ren). You and your partner, one at a time, will be asked some questions about your food and nutrition practices. It may take about one hour to talk to the researcher at the Saskatoon Food Bank & Learning Centre. In appreciation for your participation, you will be provided with a bus pass and some extra food.

Please note that both you and your partner must be available and meetings will be scheduled at your convenience within two weeks.

Please register your name, contact address and availability so that we can get back to you with more information.

Name	Phone number	Email address	Availability	
			Date	Time

Appendix E: Sign-up sheet



“For Couples Only”

Sign-up sheet

You are invited to take part in a study on food issues people have in Saskatoon being conducted by a student researcher of the University of Saskatchewan.

You can join the study if you live together with your partner. You and your partner, one at a time, will be asked some questions about your food and nutrition practices. It may take about one hour to talk to the researcher. Each of you will be provided with a gift card worth \$20.00. In addition, you will also get a multi-use bus pass (2 rides) if you travel to meet the researcher.

Please note that both you and your partner must be available and meetings will be scheduled at your convenience within two weeks.

Please register your name, address and availability so that we can get back to you with more information.

Name:

Home address:

Phone number:

Email address:

Available Date:

Available Time:

Note: Please return it to the staff on duty who will keep in a secure location.

Appendix F: Interview guide for key informants

A. Preamble:

1. Setting up the interview: I will

Greet and thank the participant for his/her time and participation.

Introduce myself.

Tell them what and why I am doing the interview.

Remind them for the use and permission of voice recorder.

[An example of what I will say: Hi, how are you today? I would like to thank you for taking the time to talk to me. Before I go further, I would like to introduce myself. My name is Rajesh Thakur and I am a graduate (Ph. D.) student at the College of Pharmacy and Nutrition, University of Saskatchewan. I am going to tell you about the research for which your participation is very important. This research project focuses on the food practices people have in Saskatoon. Please share your experiences. Your input will greatly help understand how food situation can be improved.

To make sure that I have first-hand viewpoint I am interviewing you. Therefore, I would like you to answer some questions. Please feel free to talk. Our conversation is being recorded. It will ensure that I do not miss anything you say.]

2. At the beginning of the interview: I will

Talk about the informed consent.

Inform that the interview has been approved by U of S research ethics board.

To ensure confidentiality, I will explain

- what I will do with the information they will provide

- who will have access to the information
- how it will be safeguarded/stored
- how the result will be presented

This will reassure that responses will be kept confidential.

Provide them mine and my supervisor's contact address so that they can ask questions, if any.

3. During the interview: I will

Start with general questions.

Repeat/rephrase the question if needed.

Listen to the participant attentively and respond as necessary.

Encourage the participants to tell their experience as much as possible and try to make the interviews lively conversations by asking further.

Ask questions to encourage them to elaborate for example, Tell me more about. . . .

Ask for clarification and examples if necessary.

Paraphrase/summarize the conversation to ensure that I understand what they are saying.

The questions are open-ended. To keep the interview on track or to avoid deviation if any, I will direct the conversation toward the research questions.

I will use probes as necessary. For example,

- Would you explain that more?
- I'm not sure I follow you.
- Is there anything you would like to add?

4. Following the interview: I will

Perform member check. To do so I will

- Summarize main points of the interview and ask participants to validate the accuracy of my understandings.
- Ask them to provide additional information and feedback to verify that their views are sufficiently represented.

Thank the participant.

Check tape recording.

Note the interview fully as soon as it is concluded, to ensure the accuracy.

B. Interview Questions

1. Please tell me about your organization and its mandate or purpose.
2. Please describe the services your organization offers.
3. How would you describe your organization's clientele?
4. How do your clients learn about and access your services?
5. How frequently do clients access your services?
6. What are the challenges, if any, for your organization in offering services?
7. What are the challenges, if any, for your clientele in accessing or using your services?
8. What, in your view, are the food and nutrition issues of your clients? (for example, access to food, shopping, price of food, and food preparation)
9. In your view, what factors contribute to your clients' food and nutrition issues? (for example, unemployment, limited incomes, lack of knowledge, and food prices)
10. How, in your view, do your clients handle their food and nutrition issues? (for example, borrow money, go without food, use Food Bank, buy food on sale)
11. What are the similarities and differences in how your male and female clients view and handle their food and nutrition issues?

12. How would you describe the overall food situation in your community? (for example, availability, accessibility, reaction of community members)?

13. What factors do you think are contributing to the food situation in the community as you describe? (for example, lack of jobs in community, no grocery stores in community)

14. What would you like to see changed about the situation as you describe?

Closing questions

Before we conclude this interview, is there anything else you would like to share?

Appendix G: Consent form for key informants

You are invited to participate in a research study entitled “**Gendered Perspectives on Food Insecurity in Saskatoon**”.

Purpose and Procedure: The purpose of the study is to investigate how male and female members of a Saskatoon household seeking food assistance from organizations/programs address their food issues. If you agree to be interviewed, you will

- meet the researcher for about 60-90 minutes at a time and place convenient to both you and the researcher
- be asked questions on your experience with food issues people have in Saskatoon
- be asked for your permission to audiotape the interview
- accept that the data collected from all interviews will be compiled and used to publish the findings in a thesis or article
- be asked to allow use of direct quotes; you will remain anonymous

Benefits: You may not directly benefit from participating in this study but it will help promote understanding of how family roles affect access to food to the household members. The knowledge generated from this study will be useful for policy and program makers to improve food security.

Risks: This research involves only minimal risk and discomfort. The probability of risk or inconvenience should not be greater than daily life encounters.

Storage of Data: The data and materials of this research will be safeguarded and securely stored by the supervisor at the University of Saskatchewan for a minimum of five years. Data will be destroyed beyond recovery when it is no longer required.

Confidentiality: The information collected in this study will be kept confidential and shared among the members of the research team only. The results will be reported in summarized form. Any written reports or presentations will not include any information that can identify you.

Right to withdraw: Your participation is voluntary and you will answer only those questions that you are comfortable with. You may leave the research project at any time for any reason without penalty of any sort and your responses will not be used.

Questions: If you have any questions concerning the research project, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided if you have other questions. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on May 13, 2011. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). Out of town participants may call collect.

Debriefing and Feedback: Immediately after the interview, the interviewer will highlight with you his understanding of your main points. You will be able to confirm the accuracy of his understanding. Once the study is completed, on request, you will be provided with a summary report of the results.

You may ask questions about the research and concerns about your involvement. You can also let the researcher know if you like to receive a summary of the findings.

You will be offered an opportunity to review the transcript of your interview and make changes if you wish. Please indicate below your choice.

Yes, I am interested to review.

No, I am not interested and authorize the researcher to use my transcript.

I understand that once the interview transcript is sent to me I will review it and release Transcript Release Form in two weeks. I authorize the researcher to use my interview transcript if I do not return the reviewed transcript and signed Transcript Release Form in two weeks.

I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project, understanding that I may withdraw my consent at any time. A copy of this Consent Form has been given to me for my records.

(Name of Participant)

(Date)

(Signature of Participant)

(Signature of Researcher)

The research team members are:

Rajesh Thakur

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Appendix H: Interview guide for study population

A. Preamble:

1. Setting up the interview: I will

Greet and thank the participant for his/her time and participation.

Introduce myself.

Tell them what and why I am doing the interview.

Remind them for the use and permission of voice recorder.

[An example of what I will say: Hi, how are you today? I would like to thank you for taking the time to talk to me. Before I go further, I would like to introduce myself. My name is Rajesh Thakur and I am a graduate (Ph. D.) student at the College of Pharmacy and Nutrition, University of Saskatchewan. I am going to tell you about the research for which your participation is very important. This research project focuses on the food practices people have in Saskatoon. Please share your experiences. Your input will greatly help understand how food situation can be improved.

To make sure that I have first-hand viewpoint I am interviewing you. Therefore, I would like you to answer some questions. Please feel free to talk. Our conversation is being recorded. It will ensure that I do not miss anything you say.]

2. At the beginning of the interview: I will

Talk about the informed consent.

Inform that the interview has been approved by U of S research ethics board.

To ensure confidentiality, I will explain

- what I will do with the information they will provide
- who will have access to the information

- how it will be safeguarded/stored
- how the result will be presented

This will reassure that responses will be kept confidential.

Provide them mine and my supervisor's contact address so that they can ask questions, if any.

3. During the interview: I will

Put easier questions first.

Repeat/rephrase the question if needed.

Listen to the participant attentively and respond silences/pauses as necessary.

Encourage the participants to tell their experience as much as possible and try to make the interviews lively conversations by asking further e. g., what happened next? How did you feel at that time?

Ask questions to encourage them to elaborate for example, Tell me more about. . . .

Ask for clarification and examples if necessary.

Paraphrase/summarize the conversation to ensure that I understand what they are saying.

The questions are open-ended. To keep the interview on track or to avoid deviation if any, I will direct the conversation toward the research questions.

I will use probes as necessary. For example,

- Would you explain that more?
- I'm not sure I follow you.
- Is there anything you would like to add?

4. Following the interview: I will

Perform member check. To do so I will

- Summarize main points of the interview and ask participants to validate the accuracy of the descriptions.
- Ask them to provide additional information and feedback to verify that their views are sufficiently represented.

Thank the participant.

Check tape recording.

Note the interview fully as soon as it is concluded, to ensure the accuracy.

B. Interview Questions

General questions:

What are some of your favourite foods? What are the least favourite?

What do other members in your household like to eat?

What might you eat in a typical day?

Food situation:

1. Who makes the decisions in your household about food to buy? On what basis are these decisions made?

Probing question. For example, are these decisions based on....

- Knowledge
- Skill
- Time
- Interest
- Habit
- History/Experience
- Likes and dislikes of household family members

- Cost and availability of food
- Ease of preparation
- Available storage space
- Other

2. Who, in your household, shops, prepares and serves the food?

2.1 What challenges does this individual have in doing so?

Probing question: For example, some challenges might be related to time, knowledge, resources, support and experience? Would any of these apply in your situation? Can you describe?

2.2 What would help your household in overcoming these challenges?

Probing question: For example, would more resources, better knowledge and skills, and better access to food be helpful to your household?

3. How does, if at all, your family's food situation change over the course of a typical month (probe: e.g. run low on food at certain times, no transportation to access food)?

3.1 What strategies do you use (or would use) in these situations?

4. How would you describe the overall food situation in your household (in the past 12 months)?

5. How do you feel about the food situation in your household?

Probing question: Some words that individuals use to describe how they feel include happy, sad, angry, frustrated, and satisfied. Would these or other similar words describe how you feel about your situation?

6. What would you like to be different, if anything, about your food situation?

Probing question: For example, in terms of

- resources available to buy food
- foods available to buy

- your food knowledge and skill
- access to food
- community/organization support

7. What would most help you in having a different food situation?

Probing question: For example, in terms of

- resources
- personal knowledge and skill
- Family/community/organization support

8. In what way, if at all, are your views of your household's food situation similar or different from your partner?

Probing question: For example, in terms of

- resources available to buy food
- types of food to buy
- access to food
- acceptability of food
- quality of product/brand name
- food preparation

Other:

9. Do you see your friends, families or others in your community having food issues? In your view, how are they dealing with these issues? What might help your community?

Probing question: Do you see your families' food practices (regarding decision making, access, purchase, and cooking) are similar/different from others? How?

Demographics:

1. I am going to give you some age range categories. Could you tell me which age range you fit into?

- a) 18-34 years
- b) 35-54 years
- c) 55 or above
- d) Prefer not to say

2. How many children are living in your household that are less than 18 years?

- a) 1
- b) 2
- c) More than 2
- d) Prefer not to say

3. How do you identify yourself based on your origin/ancestry?

- a) Aboriginal
- b) Non-aboriginal
- c) Immigrant
- d) Other
- e) Prefer not to say

4. What level of education you have completed?

- a) High school or less
- b) Technical school or college
- c) University
- d) Prefer not to say

5. How would you describe your current employment status?
- a) Employed
 - b) Unemployed
 - c) Other
 - d) Prefer not to say
6. How would you describe your residence?
- a) Owned by you or your spouse free and clear (without a mortgage or loan)
 - b) Owned by you or your spouse with a mortgage or loan
 - c) Rented
 - d) Other
 - e) Prefer not to say

Closing questions

Before we conclude this interview, is there anything else you would like to share?

Appendix I: Consent form for study population

You are invited to join in a research study entitled “**Gendered Perspectives on Food Insecurity in Saskatoon**”.

Purpose and Procedure: The purpose of the study is to talk to male and female members of a household about their food practices and experiences. If you agree to be interviewed, you will

- meet with the researcher for about 60-90 minutes at a time and place convenient to both you and the researcher
- be asked questions on your household food related matters
- be asked about having the interview audio taped so we record your thoughts correctly; we will do so with your permission
- accept that the data collected from all interviews will be compiled and used to publish the findings in a thesis or article
- be asked to allow use of direct quotes; names will not be mentioned

Benefits: You may not directly benefit from participating in this study but it will us help better understand household food issues in Saskatoon. You may benefit in the future when the results of this study are used by policy and program makers to improve food access to the people in crisis.

Risks: This research involves only minimal risk and discomfort. The probability of risk or inconvenience should not be greater than daily life encounters. By joining in this study, some participants may think that they may need some support. In that event, you will be provided with a list of organizations to contact.

Storage of Data: The data and materials of this research will be safeguarded and securely stored by the supervisor at the University of Saskatchewan for at least five years. Data will be destroyed beyond recovery when it is no longer required.

Confidentiality: The information collected in this study will be kept confidential and shared among the members of the research team only. Any reports or presentations will not include any information that can identify you.

Right to withdraw: Your participation is voluntary and you will answer only those questions that you are comfortable with. You may leave the research project at any time for any reason without penalty of any sort and your responses will not be used.

Questions: If you have any questions concerning the research project, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided if you have other questions. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on May 13, 2011. Any questions regarding

your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). Out of town participants may call collect.

Debriefing and Feedback: Immediately after the interview, the interviewer will highlight with you his understanding of your main points. You will be able to confirm the accuracy of his understanding. Once the study is completed, on request, you will be provided with a summary report of the results.

You may ask questions about the research and concerns about your involvement. You can also let the researcher know if you like to receive a summary of the findings.

You will be offered an opportunity to review the transcript of your interview and make changes if you wish. Please indicate below your choice.

Yes, I am interested to review.

No, I am not interested and authorize the researcher to use my transcript.

I understand that once the interview transcript is sent to me I will review it and release Transcript Release Form in two weeks. I authorize the researcher to use my interview transcript if I do not return the reviewed transcript and signed Transcript Release Form in two weeks.

I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project, understanding that I may withdraw my consent at any time. A copy of this Consent Form has been given to me for my records.

(Name of Participant)

(Date)

(Signature of Participant)

(Signature of Researcher)

For oral consent:

“I read and explained this Consent Form to the participant before receiving the participant’s consent, and the participant had knowledge of its contents and appeared to understand it.”

(Signature of Researcher)

(Date)

The research team members are:

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Appendix J: Interpreter and translator confidentially agreement

I agree to assist the researcher as an interpreter/translator/transcriptionist during interviews for the study “Gendered Perspectives on Food Insecurity in Saskatoon”.

I understand that my role as an interpreter/translator/transcriptionist is to facilitate communication between the researcher and the participant. I understand that I have adequate command of both English and the language for which interpretation/translation/transcription is required.

By signing this, I agree to keep all information from the interview confidential. I understand that this duty will extend after I am no longer working in the study.

Interpreter/Translator/Transcriptionist Name

Researcher Name

Interpreter/Translator/Transcriptionist
Signature

Researcher Signature

Date

Date

Appendix K: Transcript release form

I, _____, have reviewed the complete transcript of my personal interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate. I acknowledge that the transcript accurately reflects what I said in my personal interview with Rajesh Thakur. I hereby authorize the release of this transcript to Rajesh Thakur to be used in the manner described in the Consent Form. I have received a copy of this Data/Transcript Release Form for my own records.

Name of Participant

Date

Signature of Participant

Signature of researcher