Exploring Undergraduate Indigenous Students’ Experiences with Institutional and Community Food Systems in an Urban Setting

by

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ABSTRACT

EXPLORING UNDERGRADUATE INDIGENOUS STUDENTS’ EXPERIENCES WITH INSTITUTIONAL AND COMMUNITY FOOD SYSTEMS IN AN URBAN SETTING

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This thesis investigates the food systems of Indigenous undergraduate students’ and experiences of community service providers with Indigenous students and needs of those students relating to their food systems. Data collection included face-to-face semi-structured interviews with eight self-identified Indigenous students. A focus groups was conducted with service providers on- and off-campus, including stakeholders at the University of Guelph, and the community of Guelph. Data was analyzed using thematic analysis. Interview results were organized using the socio-ecological model. Interview participants identified several factors that influenced their food systems including financial capacity, convenience, social influences and campus food environments. Participants also provided recommendations to support their food systems. Focus group participants identified linkages of social support and connectedness to increase student access to food systems. Barriers for students and food systems include lack of awareness and stigma. Suggestions are made to address the needs of Indigenous students and their food systems.
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Chapter 1: Introduction and Objectives

1.1 Background

Having a post-secondary education has become an important prerequisite to being able to find a job, with 80% of jobs requiring some form of post-secondary education (Silverthorn, 2016). While the importance of having a post-secondary education has increased, tuition fees have also risen substantially with Ontario college tuition fees outpacing inflation by 318% (Canada Federation of Students Ontario, 2013). Due to increasing financial pressures on students, almost every post-secondary institution across Canada has a campus food bank to support students, but there is limited research on the issues and potential impacts of these circumstances on food insecurity among students who access these services (Silverthorn, 2016). Food security is defined as: “when all people, at all times, have physical and economic access to sufficient safe and nutritious foods that meet their dietary needs and food preferences for an active and healthy life” (FAO, 2006; p. 1). Food insecurity is an issue for several vulnerable populations including, female lone parent households, elderly living alone, Indigenous peoples and post-secondary students (Entz, Slater & Aurelie, 2017; Gaines, Robb, Knol & Sickers, 2014; Gallegos, Ramsey & Ong, 2014; Meldrum & Willows, 2006; Tarasuk, Mitchell & Dachner, 2016). Food systems involves all the activities relating to the production, processing, transport and consumption of food (Future of Food, 2015). Traditional food systems include all foods that are available to a particular culture from local natural resources as well as the acceptable patterns of use within that culture (Kuhnlein & Chan, 2000). Traditional food systems link environment and health and
have significant symbolic and spiritual value that are central to the identities of Indigenous peoples and the maintenance of those identities (Power, 2008).

There are many factors contributing towards circumstances of food insecurity among students that have been identified in the literature including high food costs, housing costs, tuition fees and lack of food skills and knowledge (Entz et al., 2017; Gaines et al., 2014; Gallegos et al., 2014; Meldrum & Willows, 2006). The most recent research among post-secondary students has been conducted in Canada, USA and Australia, and has primarily used quantitative methodologies to determine prevalence of food insecurity in the general population of students and international students (Entz et al., 2017; Gaines et al., 2014; Gallegos et al., 2014; Maroto, 2013). Indigenous students have been overlooked when researching food insecurity among post-secondary students. This is an important group to investigate as higher rates of food insecurity among Indigenous populations in Canada have been previously reported compared to the general Canadian population (Gadacz, 2014; Tarasuk et al., 2016; Willows, Veugelers, Raine & Kuhle, 2009). This body of literature suggests that Indigenous university students may be even more vulnerable to food insecurity than the general population of post-secondary students and this unique population group should be further investigated.

1.2 Rationale

Quantitative research from countries including USA, Australia and Canada indicate that undergraduate students experience high prevalence rates of food insecurity (Bruening Brennhofer, van Woerdon, Todd & Laska, 2015; Gallegos et al.,
There are several contributing factors to food insecurity among Canadian university students that have been identified, such as the cost of food, high cost of housing, and tuition fees (Entz, et al., 2017). Food insecurity is also an important public health concern as it is linked to poor health and overall well-being (Tarasuk et al., 2016). Chronic food insecurity, which is food insecurity experienced over the long term, is associated with poor physical health such as chronic conditions including type 2 diabetes and heart disease (Gucciardi, Vogt, DeMelo & Stewart, 2009; Hanson & Olson, 2012; Tarasuk et al., 2016). Acute food insecurity is associated with shorter term periods of hunger and decreased intake of foods of higher nutrient density such as fruits, vegetables and meat and alternatives which can generally result in nutrient deficiencies (Tarasuk, 2001). Aside from impacts on physical health, food insecurity can also potentially negatively affect mental health as it was shown to be associated with depression and anxiety in adults and adolescents (Bruening et al., 2015; Hanson & Olson 2012). Academic achievement and food insecurity are related as children who experience food insecurity have been shown to experience decreased academic achievement (Alaimo, 2005). The cultural component of food security is important, for Indigenous peoples as traditional food is important to their health and well-being (Power, 2008). Traditional foods are also considered as nutritionally, culturally and economically important and relate to food security as traditional foods are more nutrient dense than market food replacements (Gadacz, 2014).
To-date, there have been no studies to my knowledge that have solely included Indigenous university students. Most research conducted among university students has had a quantitative focus and examined the topics of food insecurity and nutrition related to campus food banks and economic deficit (Bruening et al., 2015; Gaines et al., 2014; Gallegos et al., 2014; Jessri, Abedi, Wong & Eslamian, 2014; Meldrum & Willows, 2006; Micevski et al., 2014). Due to the higher prevalence rates of food insecurity among university students in general, and among Indigenous populations in Canada, there is need for research to examine food access among this potentially vulnerable sub-group (Gadacz, 2014; Silverthorn, 2016). Therefore, this study was proposed to examine Indigenous university students’ experiences to allow for an exploration of their interaction with on and off-campus food systems as whole in the city of Guelph, Ontario.

1.3 Study Objectives

Due to the high prevalence rates of food insecurity among university students in general, and among Indigenous populations in Canada in particular, there is need for research to examine food access among this potentially vulnerable sub-group (Gadacz, 2014; Silverthorn, 2016). A qualitative investigation was designed to explore the experiences of self-identified Indigenous students in accessing their local food systems on an urban campus and surrounding community. Additionally, the research proposed to investigate both university and community resources that may or may not support Indigenous students' food access. The overall goal of the research therefore was to explore undergraduate Indigenous students’ experiences with institutional and community food systems in an urban setting at the university and larger community of
Guelph, Ontario. Specific objectives of the study were to investigate: how Indigenous students access food and interact with their food systems; the differences in food access between students who live off- and on-campus; potential food access and consumption adaption processes of Indigenous students at university compared to their home communities; and recommendations from students about sustainable food systems to meet their own specific needs on and off campus.

A second research goal was to investigate programs in place or in development at the University of Guelph and within the community of Guelph that address food insecurity and more specifically the needs of Indigenous university students. Objectives included: exploring the perceptions of on campus program developers and Guelph service providers on the specific needs of Indigenous university students; and identify programming relevant to Indigenous students’ food needs and support on campus and in the Guelph community.

1.4 Thesis Outline

The body of this thesis is divided up into a number of chapters and appendices. A more complete examination of the literature relevant to this study is provided in Chapter Two of this thesis. Chapter Two begins with definitions of food security, foods insecurity, food sovereignty, Indigenous food sovereignty, and Indigenous food systems. Next, measuring food insecurity is discussed in relation to the general Canadian population, Indigenous peoples and university students. Lastly, the literature that will be discussed include the health and social impacts associated with circumstances of food insecurity. Research design and methodology employed for this study are outlined in Chapter
Three. This chapter includes information on project implementation and the overall research process. The overall results are divided between chapters four and five. In Chapter Four, the interview data including demographics and models and the discussion of the interviews are presented. The results of the focus group including demographics and models are discussed in Chapter Five. Chapter Six provides overall conclusions and recommendations based on findings from the project. Appendices contain ethics approval, recruitment posters, consent form, and the interview and focus group guides.
2  Chapter 2: Literature Review

2.1  Introduction

The literature review is organized first by presenting definitions. Definitions are important to situate the literature and results of the data. Definitions include food security, food insecurity, food sovereignty, Indigenous food sovereignty and Indigenous food systems in the literature. The next section will review the measurement of food insecurity among the Canadian general population, Indigenous peoples and university students. The chapter will end with presenting the literature on health and social impacts associated with circumstances of food insecurity.

2.2  Definition

2.2.1  Food Security

There are many definitions of food security, but the definition that is most widely used and accepted by researchers and public health practitioners is the Food and Agriculture Organization (FAO) definition. The term food security originated in 1974 as a response to the global food crisis, at the World Food Conference, which defined the term 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, 2006; p. 1). In the 1970s, there was a major reduction in agricultural production including cereal production mainly due to climatic reasons (Simon, 2012). This resulted in higher food prices for several countries and was viewed as an international food crisis with many countries requesting the United Nations organize a conference to address the situation (Simon, 2012). In 1983, the term food insecurity
evolved to focus on food access, leading to a new definition that incorporated that “all people at all times should have physical and economic ability to access the food that they require” (FAO, 2006). The FAO currently defines food security, “when all people, at all times, have physical and economic access to sufficient safe and nutritious foods that meet their dietary needs and food preferences for an active and healthy life” (FAO, 2006; p. 1). This definition encompasses the complexity and multidimensionality of food security, which is more than just having enough food. According to FAO, food security includes four pillars including food availability, food access, utilization and stability (FAO, 2006). The first pillar of food security, food availability requires that there is enough quantity of food that is of appropriate quality on the food market (FAO, 2006). Food access requires individuals to have enough resources to buy foods that are nutritious (FAO, 2006). Utilization relates to food being adequate with access to clean water and health care so that individuals can have nutritional well-being and not experience illness that may inhibit the utilization of food. As well, utilization encompasses that individuals have the knowledge and skills to prepare and consume nutritious food (FAO, 2006). Lastly, stability requires that individuals are not at sudden risk of losing their access to food due to sudden shocks or cyclical events and that there is access to food at all times (FAO, 2006).

2.2.2 Food Insecurity

Food insecurity is not simply the opposite of food security; food insecurity has been defined as, “limited or uncertain availability of nutritionally adequate safe foods or limited or uncertain availability to acquire acceptable foods in socially acceptable ways”
(Tarasuk & Beaton, 1999; p. 109). The definition of food insecurity incorporates the stage before not having enough food, but when individuals have to worry about their food supply, and this is also considered food insecurity. Further, household food insecurity is defined as, “inadequate or insecure access to food because of financial constraints” (Tarasuk et al., 2016). Food insecurity is related to lack of finances preventing individuals from accessing sufficient quantities of food (Tarasuk et al., 2016). Food insecurity has other aspects beyond financial access to enough food, and includes four stages of food insecurity (Alaimo, 2005). The first stage is psychologically related as individuals worry and become preoccupied about the stability of their food supply, also referred to as food anxiety (Alaimo, 2005). The second stage, is quality related, meaning individuals compromise the quality of their food or choose unsuitable foods, which can lead to decreased nutritional value of food and consuming foods that are not culturally appropriate (Alaimo, 2005). The next stage is food shortage, resulting in the quantity of food being decreased, as individuals do not have enough access to sufficient amounts of foods (Alaimo, 2005). Lastly, food insecurity has a social aspect, which is related to obtaining foods in unacceptable ways that may be associated with social stigma including use of charitable organizations such as food banks (Alaimo, 2005). The qualitative dimension of food insecurity is relevant to the proposed research, as this dimension relates to choosing food that may not be culturally appropriate due to the lack of availability, or financial restraint (Alaimo, 2005).

Food insecurity can be chronic or transitory (FAO, 2006). Chronic food insecurity is long term or persistent and results when people are unable to meet their food
requirements over an extended period of time (FAO, 2006). Chronic food insecurity is caused by extended bouts of poverty, limited access to financial resource and lack of assets (FAO, 2006). Transitory food insecurity is short term and temporary and generally results from shocks and fluctuations in food availability and access such as yearly variations in food production, income, and food prices (FAO, 2006). This type of food insecurity occurs when people suddenly lose the ability to produce or access enough food to maintain a healthy nutritional status and thus is relatively unpredictable and can suddenly emerge (FAO, 2006).

Food insecurity can be considered a social determinant of health (Mikkonen & Raphael, 2010). Social determinants of health are the living conditions that shape the health of individuals (Mikkonen & Raphael, 2010). There are several social determinants of health including gender, Aboriginal status, early life and others (Mikkonen & Raphael, 2010). Food insecurity limits the ability for individuals to achieve adequate nutritional intake (Mikkonen & Raphael, 2010). Nutrient deficiencies are common among those that are food insecure and is associated with chronic conditions (Mikkonen & Raphael, 2010). Further, food insecurity may produce stress and result in feelings of uncertainty that can negatively affect health (Mikkonen & Raphael, 2010).

2.2.3 Food Sovereignty

In Rome in 1996, there was a movement of farmers, farm workers and Indigenous peoples, called La Via Campesina that wanted to protest globalization of food systems (Cidro et al., 2015; Via Campesina, 1996). Groups from all over the world came together to address food security, and noted that food security cannot occur
without including those who produce food (Via Campesina, 1996). La Via Campesina defines food sovereignty as “the right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity” (Via Campesina, 1996, p.1). Food sovereignty goes beyond food security as this concept incorporates a multi-dimensional framework that examines resource depletion, environmental degradation, and economic crisis, by looking at the neoliberal trade and production and how it has negative effects on the access to sustainable, healthy and culturally appropriate food (Gulrukh Kamal, Linklater, Thompson & Mechisowin, 2015). Further, food sovereignty aims to have increased control of the food by the consumers and food producers who have shared interests, and this challenges the capitalist’s interests of accumulation and privatization (Gulrukh Kamal et al., 2015). The food sovereignty framework is evolving, but the movement aims to strengthen community and livelihoods, as well as social and environmental sustainability in regards to the production, distribution and consumption of foods that are nutritious and culturally appropriate (Desmarais & Wittman, 2014). The strategies behind informing these goals include respect for diversity, understanding the role of nature, human agency, equitable distribution of resources, addressing uneven relations in powers, and creating participatory democratic organizations (Desmarais & Wittman, 2014). Further, food sovereignty has a broader scope than food security as food sovereignty examines what food is produced, where the food is coming from, how and who produced the food, scale of production, and lastly distribution and consumption of food (Desmarais & Wittman, 2014).
There are seven pillars of food sovereignty (Nyéléni, 2007). Six of the pillars were developed at the International Forum of Food Sovereignty in 2007, with the seventh pillar added by the Indigenous Circle Group during the People’s Food Policy (Food Secure Canada, n.d.; Nyéléni, 2007). The first pillar focuses on food for people; this puts peoples at the centre of food and agriculture policies and thus helps ensure that there is enough healthy and culturally appropriate foods for everyone and their communities and therefore rejects the notion that food is simply a commodity (Nyéléni, 2007). The second pillar values food providers, so that those who produce food including women, men, farmers, family farmers and others are valued and supported, and that policies that threaten their livelihoods are rejected (Nyéléni, 2007). The third pillar localizes food systems, so that food providers and consumers can come together to make decisions (Nyéléni, 2007). Food systems is defined as all the activities relating to the production, processing, transport and consumption of food (Future of Food, 2015). The fourth pillar places control locally; control over territory, land, grazing, water, livestock is placed on the food producer so that food system is socially and environmentally sustainable (Nyéléni, 2007). The fifth pillar builds knowledge and skills; food providers already have knowledge and skills on their local food systems and food sovereignty aims to support this knowledge and passing it onto future generations (Nyéléni, 2007). The sixth pillar works with nature, and aims to support systems to maximize ecosystems, improve resilience and adaptation and rejects methods that harm ecosystems, such as methods that contribute to global warming (Nyéléni, 2007).
The seventh pillar, is that food is sacred, which recognizes that food is a gift that must not be commodified or wasted (Food Secure Canada, n.d.)

In Canada, a national food sovereignty movement began in 2001 with National Farmers Union (NFU) and Union Paysanne, which were the two Canadian members of La Via Campensina. The NFU includes only Canadian farmers, while the Union Paysanne includes farmers, researchers, students, consumer groups and eco-tourisms businesses (Desmarais & Wittman, 2014). The NFU had the goal of working for farmers to protect their interests against corporate control of food systems (Desmarais & Wittman, 2014). The Unione Paysanne focuses its work on building human-scale agriculture and strong rural communities, and linking producers and consumers (Desmarais & Wittman, 2014). In 2007, Food Secure Canada was formed, which was a national civil society alliance that worked to support food security and food systems that are sustainable (Desmarais & Wittman, 2014). These actions lead to Canadian Peoples’ Food Policy Project in 2009, which had the goal to create food sovereignty policy in Canada (Desmarais & Wittman, 2014).

2.2.4 Indigenous Food Sovereignty

Food sovereignty is a diverse movement that includes many approaches (Gulrukh Kamal et al., 2015). One of the approaches includes Indigenous food sovereignty, which has its own values, understandings and goals relating to food sovereignty (Gulrukh Kamal et al., 2015). Food sovereignty has been a reality for Indigenous peoples for thousands of years, but colonialism and changes to the environment had threatened local food systems leading to high rates of food insecurity.
Food insecurity in the Indigenous population can be attributed to many reasons including the high food prices in northern communities, and concerns caused by contamination of food and landscape through industry such as forestry and hydropower impacting traditional food systems (Martens, Cidro, Hart & McLahlan, 2016). Even though Indigenous food sovereignty has been said to be a “living reality” for thousands of years, it has only recently come up in the literature (Martens et al., 2016, p.21).

Indigenous food sovereignty values collective, interconnected autonomy with both human and non-human beings, especially natural entities, so that culture is maintained in order to reach peak community health and sustainability (Gulrukh Kamal et al., 2015). There are four principles to Indigenous food sovereignty: the first being recognition that food is sacred; participating in food systems; self-determination; and supportive policy and legislation (Cidro et al., 2015). In order to work towards attaining food Indigenous sovereignty, Indigenous cultural values need to be incorporated into policies and the movement requires participation in the community (Gulrukh Kamal et al., 2015). As well, Indigenous food sovereignty places importance on cultural practices, and assists in decolonization of land and peoples (Gulrukh Kamal et al., 2015).

2.2.5 Traditional Food Systems

Traditional food systems include all foods that are available to a particular culture from local natural resources as well as the acceptable patterns of use within that culture (Kuhnlein & Chan, 2000). Traditional foods originate from the natural environment, and are obtained through methods such as farming or wild harvesting (Neufeld & Richmond,
Additionally, traditional foods are important to the physical health and well-being of Indigenous peoples (Neufeld & Richmond, 2017). Traditional foods are considered as nutritionally, culturally and economically important as these foods are more nutrient dense than market food replacements (Gadacz, 2014). Traditional food systems link environment and health and have significant symbolic and spiritual value that are central to the identities of Indigenous peoples and the maintenance of those identities (Power, 2008).

### 2.2.5.1 Indigenous Food Systems in North

Indigenous peoples are undergoing dietary change from local traditional foods to more commercially produced and imported market food (Kuhnlein & Chan, 2000). Research documenting this transition began with studies examining dietary change in northern areas and found that food insecurity is an issue in Canada for several reasons including changes to the food systems (Islam & Berkes, 2016; Schiff & Brunger, 2013; Skinner, Hanning, Desjardins, Tsuji, 2013; Tarasuk et al. 2016). High rates of food insecurity in the north are due to high food costs, environmental concerns and climate change and issues relating to food production, acquisition and consumption (Schiff & Brunger, 2013). The high cost of food in the north is caused by the long-distance transportation and fuel to reach northern and remote communities (Schiff & Brunger, 2013). In addition to the high cost of food, food systems in the North are compromised by very short growing seasons so not as much in the way of fresh locally-produced foods are available, decreased light levels, permafrost and low social quality inhibiting the ability to grow food (Schiff & Brunger, 2013). Further, climate change and
environment pollutants have negatively affected traditional hunting, gathering and fishing areas (Schiff & Brunger, 2013). Food insecurity in the north has led to implications on diet quality. A study by Wesche & Chan (2010) found that Inuit communities in Western Arctic Canada had lower traditional food uses, which lead to reductions in iron, zinc, protein, vitamin D and omega-3 fat intakes. In response to food insecurity, many communities use adaptive strategies to support their food systems including food sharing mechanisms, hunting flexibility, and store-food access (Ford, Lardeau, Vanderbilt, 2012; Islam & Berkes, 2016; Skinner et al., 2013).

2.2.5.2 Indigenous Food Systems in the South

There is less literature exploring the evolution of traditional food systems in southern Canada compared to research in the north (Stroink & Nelson, 2009; Neufeld & Richmond, 2017). In southern Canada, Indigenous populations are experiencing similar changes compared to the north in that their environment and the negative impacts of climate change are impacting traditional food systems (Schiff & Brunger, 2013). In addition to environmental changes, the impacts of colonialism and assimilation to urban patterns have deteriorated the relationship between Indigenous peoples and their traditional food systems (Neufeld & Richmond, 2017). A study by Neufeld & Richmond (2017) found that it is important to include community, family-centred education about food and re-establishing relationships with the land to restore traditional foods system in the south.

A study examining the use of traditional foods among reserve communities in Ontario found that 93% of adults reported consuming traditional foods in the last year.
The most commonly reported traditional food consumed included wild fish, game and berries (Chan et al., 2014). Further, 70% of Ontario households on reserve reported partaking in traditional harvesting and gathering activities (Chan et al., 2014). Participants indicated that they wanted to have more traditional food but were limited by time constraints, lack of skill and/or equipment, government restrictions and forestry operations (Chan et al., 2014).

### 2.2.5.3 Urbanization and Migration

The Indigenous population in Canada is experiencing a push towards urbanization (Snyder & Wilson, 2012). Urbanization of Indigenous peoples has been a focus in research since the 1970s. Decisions to move to urban areas during 1960s-70s was due to lack of job opportunities, poor housing conditions and social problems related to poverty in Indigenous communities on reserves (Cooke & Belanger, 2005). However, most of the research on this topic has viewed these processes as a social problem that focused on Indigenous poverty in the city, inability to adapt to city living, crime, discrimination and alcoholism (Cooke & Belanger, 2005). Indigenous migration was also influenced by the relationship/federal policies between the Indigenous population and the Canadian government (Cooke & Belanger, 2005). For example, Bill C-31 (1985), which restored Indian status for women and their children who married non-status men; those who lived off-reserve for extended periods including those serving in the military and attended post-secondary institutions, had a major impact on migration (Cooke & Belanger, 2005).
Current research on the factors that affect individual migration decisions among the Indigenous population has found individuals often move in search of opportunities (Cooke & Belanger, 2005). Opportunities such as education and employment were major reasons for migration from reserves (Cooke & Belanger, 2005). The major deterrent from urbanization was networks and links (Cooke & Belanger, 2005). Family and friends are important parts of life in home communities, and were considered major reasons to move back to reserves from cities (Cooke & Belanger, 2005).

Other research topics include Indigenous mobility and health care utilization. During the 1980s, this area was problematized as the research demonstrated that the Indigenous population inappropriately and under-used health care services (Synder & Wilson, 2012). These ideas were dispelled as it was proven that socio-economic factors such as poverty, lack of transportation, racism and language barriers impacted health care use, rather than cultural factors (Snyder & Wilson, 2012). More recent research in Canada, based on data collected by Statistics Canada in the Aboriginal People Survey (2006), found varying results from different cities about Indigenous urbanization and health care use (Synder & Wilson, 2012). In Toronto, Indigenous newcomers were the most likely to use a physician, while those who were new to Winnipeg were less likely to visit a physician (Synder & Wilson, 2012). Mobility was not related to physician use in Toronto, while increased mobility in Winnipeg was associated with increased physician visits (Synder & Wilson, 2012).
2.3 Measuring Food Insecurity

Prevalence rates of food insecurity in Canada are most commonly measured by accessing data collected by the Canadian Community Health Survey (CCHS) (Tarasuk et al., 2016). CCHS is a cross-sectional survey completed by Statistics Canada every year to gather health information such as health status, health care utilization and health determinants (Statistics Canada, 2016; Tarasuk et al., 2016). Food security is measured in the survey using the Household Food Security Survey Module (HFSSM) (Government of Canada, 2012). The module uses 18 questions to gather self-reported data of uncertain, insufficient or inadequate food access, availability and utilization, due to insufficient monetary resources at a household level, and is therefore not an individual measure of food insecurity (Government of Canada, 2012). The sample is meant to be representative of Canada; however, certain populations that have increased vulnerability to food insecurity are not included in the survey. These populations include homeless individuals, those who live on military bases, those who live on First Nation Reserves and those that live in institutions such as long-term care facilities (Tarasuk et al., 2016). Due to these populations not being represented in the survey, prevalence of food insecurity in Canada is likely underestimated (Tarasuk et al., 2016). Data from the 2014 survey indicate overall that 12% of the Canadian population experienced food insecurity in the past twelve months (Tarasuk et al., 2016). This 12% prevalence rate is stable compared to results from 2011-2014, but is a significant increase from the 2008 prevalence rate of 7.7%, showing that food insecurity has
increased in recent years and is not declining (Tarasuk et al., 2016). There is limited data on the prevalence of food insecurity among Indigenous populations.

2.3.1 Food Insecurity among Indigenous Communities

Food insecurity data for First Nations population living on-reserve comes from the First Nations Food, Nutrition and Environment Study (FNFNES) (Gadacz, 2014). The study examined at least one hundred First Nation communities Canada, and included 18 reserve communities in Ontario between 2011 and 2012 (Gadacz, 2014). The study examined dietary health with a holistic approach by looking at five components (Gadacz, 2014). The five components included household interviews to collect information on dietary patterns, lifestyle and general health, environment concerns and food security; sampled drinking water for trace metals; collected hair samples to assess mercury exposure; sampled surface water for pharmaceuticals; and assessed traditional food for chemical contamination (Gadacz, 2014). Results from the study of on-reserve communities in Ontario show that 29% households experience food insecurity, which is significantly higher than the general Canadian population prevalence rate of 12% (Gadacz, 2014; Tarasuk et al. 2016).

Seventy percent of Indigenous Canadians live off-reserve, and assessing food insecurity among those who live off-reserve is measured using the CCHS (Willows et al., 2009). In the 2004 cycle of the CCHS, the Indigenous population was over-sampled to allow for analysis of the sub-population and reported that 29% of off-reserve Indigenous households were food insecure (Willows et al., 2009). The prevalence of food insecurity reported by CCHS is similar to the findings of the FNFNES study, which
also found that 29% of households were food insecure (Gadacz, 2014; Willows et al. 2009). Both these studies demonstrate that the prevalence of food insecurity among the Indigenous population both on- and off-reserve is significantly higher than the overall, Canadian prevalence rate of 12% in 2014 (Gadacz, 2014; Tarsuk et al., 2016; Willows et al., 2009).

2.3.2 Food Insecurity among University Students

University students are a population that are vulnerable to food insecurity for several reasons, and quantitative research from countries including USA, Australia and Canada indicate that undergraduate students experience high prevalence of food insecurity (Bruening et al., 2015; Gallegos et al., 2014; Gaines et al., 2014; Micevski et al., 2014; Silverthorn, 2016). Results from studies assessing prevalence of food insecurity at universities and colleges in the USA have found that 37-67% of students experience food insecurity; this prevalence is higher than the food insecure status of the US general population of 12.7% in 2015 (Bruening et al., 2015; Gaines et al., 2014; USDA, 2016). Additionally, studies at Australian universities have shown that students experience high levels of food insecurity with results ranging from 25 to 52% of students experiencing some level of food insecurity, which is higher than the Australian general population’s prevalence rate of food insecurity of 17% (Food Bank, 2016; Gallegos et al., 2014; Micevski et al., 2014). Lastly, in Canada, studies, found that 39% of students experience food insecurity, which is significantly higher than the 12% prevalence rate in the general Canadian population (Olauson, Engler-Stringer, Vatanparast & Hanoski, 2018; Silverthorn, 2016; Tarasuk et al., 2016).
A study at the University of Alberta that sampled visitors at the campus food bank, found that all visitors experienced some level of food security (Farahbakhsh et al., 2017). Fifty-eight students were included in the sample; most were female, full-time students, likely to be international students and averaged 30 years old (Farahbakhsh et al., 2017). Results indicated that 44.8% of the visitors were moderately food insecure and 44.8% were severely food insecure (Farahbakhsh et al., 2017). The classification of the severity of food insecurity comes from the Household Food Security Survey Model (Tarasuk et al., 2016). Those that are marginally food insecure are concerned and worry about running out of food (Tarasuk et al., 2016). Moderate food insecurity is when individuals compromise the quantity and/or quality of food due lack of financial capacity for food (Tarasuk et al., 2016). Severe food insecurity is when individuals miss meals and reduce food intake (Tarasuk et al., 2016).

There are several contributing factors to food insecurity that Canadian university students have identified. The most commonly reported factor is the cost of food (Entz et al., 2017). Other factors identified include limited time to prepare food, housing costs, tuition costs, inadequate loans and grants that do not provide enough financial assistance to meet basic dietary needs, limited knowledge of food preparation, lack of time, physical inaccessibility to purchase food, and limited facilities and equipment to prepare food (Entz et al., 2017; Gaines et al., 2014; Gallegos et al., 2014; Meldrum & Willows, 2006).

There have been a few studies in Canada on food insecurity among university students that examined food insecurity among international students. International
students can be considered at high risk for food insecurity because they are more likely to experience financial difficulties for several reasons (Silverthorn, 2016). First, international tuition fees are three to four times higher than domestic student fees (Hanbaza, Ball, Farmer & Maximova, 2017; Stewin, 2013). In addition, international students may lack access to culturally appropriate foods both from on campus food services and from community food resources (Stewin, 2013). Further, international students may have restrictions on their students’ visas that limit their ability to obtain employment and many students are unable to receive government loans, scholarships and bursaries (Hanbaza et al., 2017). Students who live on campus are generally required to participate in a campus meal plan that affects their ability to prepare foods for themselves due to not having cooking facilities, and food plans may not provide foods from various cultures and countries (Stewin, 2013). A qualitative examination of food insecurity among international students at the University of Guelph and University of Windsor found that students that were considered to be adventurous eaters and adapted to cooking with and eating foods available in Canada were more likely to experience food security compared to those students who prefer culturally familiar foods (Stewin, 2013). However, even those students who were adventurous eaters but had financial difficulty were not protected from food insecurity (Stewin, 2013).

To my knowledge, there have been no studies that examined food insecurity solely among Indigenous university students, but a few studies have included a small number of Indigenous students as part of the larger sample (Entz et al., 2017; Silverthorn, 2016). In a study conducted at the University of Manitoba, 75% of
Indigenous student respondents were self-reported to be food insecure, which is much higher than the study’s overall prevalence of food insecurity of 35.3% (Entz et al., 2017). The study assessed food insecurity through an online survey that asked 33 questions on mental and physical health, experiences and coping mechanisms related to food insecurity and factors that contribute to food insecurity (Entz et al., 2017). In addition, in a sample of five Canadian universities (Brock University, Dalhousie University, Lakehead University, Ryerson University, and the University of Calgary), Indigenous students were the second highest demographic group at those universities with 56.4% of students experiencing food insecurity, compared to the study average of 39% (Silverthorn, 2016). Silverthorn (2016) recommended that more research is needed to better understand why food insecurity is highly prevalent among particular groups of students such as Indigenous students.

2.4 Health and Social Impacts Associated with Circumstances of Food Insecurity

Food insecurity is an important public health concern as poor health and overall well-being are associated with food insecurity (Tarasuk et al., 2016). First, chronic food insecurity is associated with poor physical health such as chronic conditions including type 2 diabetes and heart disease (Gucciardi et al., 2009; Hanson & Olson, 2012; Tarasuk et al., 2016). Food insecurity can also potentially negatively affect mental health as it has shown to be associated to depression and anxiety in adults and adolescents (Bruening, Brennhofe, van Woerden, Todd & Laska, 2015; Hanson & Olson 2012). Additionally, chronic food insecurity is related to potentially inadequate
nutrient intake. In a sample of single mothers who live in Atlantic Canada and who experienced food insecurity, the women had lower Health Eating Index scores for their diets, compared to the average woman in Quebec (Gunville & McIntyre, 2006). Food insecurity was shown to be associated with iron deficiency anemia in a sample of American adolescents (Eicher-Miller, Mason, Weaver, McCabe, Boushey, 2009). Lastly, food insecurity was associated with lower energy intake, lower micronutrients, decreased intake of fruits and vegetables, milk products and legumes among Canadian adults and adolescents (Eicher-Miller et al., 2009; Gunville & McIntyre, 2006; Gucciardi et al., 2009; Jessri et al., 2014; Kirkpatrick & Tarasuk, 2008; Farahbakhsh et al., 2017).

Research looking at the associations between household food insecurity and health among Indigenous groups in Canada has also found several negative health associations. First, food insecure households are more likely to self-report poorer mental and general health, and higher stress and life dissatisfaction (Willows et al., 2009). In addition, food insecurity in Indigenous households was associated with decreased diet quality/diversity through consuming fewer fruits and vegetables, grains and dairy sources, while consuming greater energy from high-sugar foods which can lead to increased risk for diet-related chronic diseases when compared to food secure counterparts (Huet, Rosol & Egeland, 2012). In the FNFNES research, the diets of food insecure Indigenous adults did not meet nutritional needs as diets were reported to be high in fat and sodium; low in fibre, vitamin A, C, D and calcium; and women had low intakes of folate and magnesium; however, diets were considered healthier when they included traditional foods (Gadacz, 2014).
Academic achievement and food insecurity are related as children who experience food insecurity have been shown to have decreased academic achievement (Alaimo, 2005). In a study of college students, food insecurity was associated with decreased concentration and energy levels and lower GPA scores (Maroto, 2013; Silva et al., 2017). Further, in a sample of university food bank visitors, 60% of students reported at least one adverse academic experience due to being food insecure (Farahbakhsh et al., 2017).

Food insecurity among post-secondary students is associated with many negative health and social outcomes. First, two thirds of food insecure students at the University of Manitoba reported having fair to poor mental health and twenty-four percent reported having fair to poor physical health (Entz et al., 2017). In addition, food insecurity among students negatively affects grade performance, participation in extracurricular activities and social lives (Entz et al., 2017; Maroto, 2013). Overall, since food insecurity has been identified as an issue for the Indigenous population and for post-secondary students, this exploratory study was proposed to evaluate the food insecurity of this potentially vulnerable group of Indigenous university students.
3 Chapter 3: Methodology

3.1 Introduction

« A qualitative approach was used for this research study. Qualitative research provides opportunities to find the meaning within a particular social or psychological setting. The objective of this study was to explore the experiences of Indigenous students with institutional and community food systems in relation to food insecurity (Braun & Clarke, 2013). Additionally, qualitative methods are a useful exploratory tool to start looking at under-researched topics, as it is not necessary to have prior empirical knowledge on the topic and is considered a flexible and open-ended methodology that can evolve to suit the needs of the study (Braun & Clarke, 2013). Qualitative methodologies provided the opportunity to explore a new idea and allowed for the creation of in-depth explanations of the influences on food systems of Indigenous university students. Thus, a qualitative approach, using thematic analysis was applied in this research as it is aligned with our objectives to explore students’ experiences with institutional and community food systems. As well, qualitative methods allowed for flexibility to assess a variety of factors that affect food systems including personal, social, community and institutional factors.

This chapter includes the theoretical frameworks considered including Indigenous research methodologies, positionality, research frameworks, research models, ethics and research setting. Followed by a discussion of the overall study design and research process including recruitment, participant description, the development of the interview and focus group guides and finally how the data was analyzed.
3.2 Indigenous Research Methodologies

Indigenous methodologies can be used to create and disseminate Indigenous knowledge (IK) that is authentic and representative of the worldviews of Indigenous peoples (Brant Castellano, 2004). When conducting research with Indigenous peoples, it is important to be responsive to Indigenous frameworks and ways of knowing due to the history of research conducted on and not with Indigenous groups in North America (Brant Castellano, 2004). Research has very negative associations among the Indigenous populations as the practice of research and the outcomes of research have historically been used to exclusively benefit the researchers, and were often misguided and harmful to Indigenous peoples (Brant Castellano, 2004; Smith, 2012). Research is a process that is institutionalized, historically organized through fields and disciplines of knowledge through scholars and the academy (Smith, 2012). Research also has a significant role in political structures as a majority research funding can be traced back to government funding (Smith, 2012). Traditionally research has benefited the researcher and the knowledge base of the dominant society (Smith, 2012). Further, Western scientific inquiry emphasizes analysis on smaller bits of reality so that it can be examined with greater detail (Brant Castellano, 2004). Western research also tends to try to minimize influences from the environment so that results are objective and thus considered more reliable and valid (Brant Castellano, 2004). In contrast, Indigenous methodologies strive for more holistic awareness that can also be highly specific (Brant Castellano, 2004). An Indigenous research agenda should focus on the strategic goal of self-determination of Indigenous peoples (Smith, 2012). This can be considered a social
justice goal, and is primarily completed through various processes including the transformation of decolonization, of healing and of mobilization of peoples (Smith, 2012. As well, Smith (2012) has stated that a key component to Indigenous methodologies is to include cultural protocols, values and behaviours. Final results should be shared back to the participants in a way that can be understood and that are culturally appropriate (Smith, 2012).

Indigenous knowledge is holistic, focuses on language and places, and values relationships (Kovach, 2009). Qualitative research is more flexible and is interpreted in ways that work well with the Indigenous research agenda to explore circumstances of food security and local food systems among Indigenous university students (Braun & Clarke, 2013). Also, collecting qualitative research is more subjective and provides a method for gathering more naturally occurring data that resemble real life closer in context than that of quantitative research (Braun & Clarke, 2013). Qualitative interviews allow Indigenous students to elaborate on their unique challenges and potential solutions to the circumstances of the food access they may face, thereby promoting self-determination. Lastly, qualitative methods provide a framework to look at food security and food access/systems in a more holistic way, and give power to the participants as their voices are heard in the results of the research. Face to face interviews allow for relationships to be built between the participant and the researcher, which is important to creating Indigenous knowledge and places importance on relationships in support of life (Brant Castellano, 2004).
As a researcher conducting research across cultures or with a minority culture, it is important to recognize the power dynamics between the researcher and the participants (Smith, 2012). Researchers have the power to interpret the information they receive incorrectly through distortion, by ignoring, by overlooking, by exaggerating and by drawing conclusions on assumptions, hidden judgements or misunderstandings rather than factual information. Indigenous researchers Linda Smith and Margaret Kovach both emphasize the importance of self-situating relating to the research (Kovach, 2009; Smith, 2012). Self-situation is common among many qualitative approaches, including Indigenous methodologies (Kovach, 2009). With Indigenous research, self-situating anchors the researcher’s experiences and how these experiences will influence interpretations throughout the research process (Kovach, 2009). By critically examining self, the researcher is able to examine their research purpose and motives.

3.3 Positionality

My experiences and beliefs have had major roles in bringing me to where I am today. It is important to critically self-situate, and what has brought me to working on a graduate thesis. In approaching this research process, it was important to critically use the skill of reflexivity. Personal reflexivity involves incorporating the researcher into the research (Braun & Clarke, 2013). This includes acknowledging who the researcher is, and how that may affect the research (Braun & Clarke, 2013).

I am a young white woman, from a suburban city in Southern Ontario. I have completed my undergraduate degree in nutrition and currently completing a Master’s
thesis in nutrition. My education and career interests include health, nutrition, health equality and women’s equality. First, my interest in health and nutrition is related to my education background. Being a young adult, prior to attending university, I chose to study nutrition which led me to become passionate about health and nutrition. Second, my interest in health equality began while studying nutrition and health. I learned about other countries that do not have the same basic standard of health care that I do in Canada. Having the privileges that I do, I want to be able to improve access and advocate for others to have their health needs met. Lastly, my personal experience of traveling and living with Peepeekisis First Nation youth for a few weeks during my teen years has also helped direct my research interests of working with Indigenous populations, as I learned so much through the experience and had such a great adventure traveling with the youth.

These interests have brought me to work on my thesis topic and to conduct research on experiences of Indigenous undergraduate university students with institutional and community food systems at the University of Guelph and within the small city of Guelph, Ontario. Having a nutrition background means my previous learning has emphasized quantitative and clinical perspectives. These perspectives presented a challenge to my current research goals, which is to use qualitative methods that tend to be more subjective in their interpretation. Being a young white woman, and a graduate student I understand that I have certain privileges that may affect the chosen research area by being an outsider to participants, having power as a researcher and possibly misinterpreting results based on my differing perspectives from the
participants. While I believe that I may identify in some ways with the study participants, I have been an undergraduate student at the University of Guelph, and continue to be funded solely through student loans, government grants and part-time work. There were many differences between myself and the participants. The first privilege and source of power that I have is my role as a researcher. Knowledge is related to power, and this creates an imbalance between research participants and myself, which was acknowledged at the forefront. Second, being a white woman, I have the privilege of being part of the Canadian majority. In addition, this makes me more of an “outsider” to the research participants. These challenges emphasized the need for me to practice being a reflexive researcher.

3.4 Research Framework

The Ontario Federation of Indian Friendship Centres (OFIFC) developed the USAI Research Framework to guide Indigenous research that is community driven, relevant to the community, faithful to Indigenous identity, useful, self-voiced, accessible and relation-based (OFIFC 2012). This Framework was chosen to direct the methods in this study as it provided guidelines that were consistent with Indigenous. There are four guiding principles to the Framework. The first principle is utility, which means that the research is practical, relevant and will directly benefit the community (OFIFC, 2012). The second principle is self-voicing, which means the research is authored by the communities and that they are the knowledge holders and creators. The third principle is access, which means that the research is available to all the research authors and knowledge holders. The final guiding principle is inter-relationality, which means that all
knowledge and research occur in a web of relationships and emphasize the importance of the historical context to Indigenous knowledge (OFIFC, 2012).

This Framework was adapted and used as the framework for the proposed research because it is congruent with Indigenous methodologies. First, the Framework is holistic and places importance on relationships within research. As well, this Framework was created by Indigenous peoples for Indigenous research, and thus follows Smith’s (2012), advice for research to be guided by cultural values and protocols. The first principle of utility guided the research as the research is intended to be practical, relevant and benefit the community. The results from the current study included recommendations relevant to stakeholders and the participants themselves. The second principle of self-voicing was modified to be included in the proposed research. While I am the coordinator of the research project, I wanted the participants’ voices to be as authentic as possible. After completing the transcription of interviews, participants were re-contacted and given the opportunity to review their transcripts and make changes or modifications to the narrative text. The third principle of access guided the research and the results from the study will be shared with all participants, students and stakeholders, in a culturally appropriate manner, such as a feast. The final principle of inter-relationality guided the research as I built relationships with the community of Indigenous students at the University of Guelph through attending Soup and Bannock Days, volunteering at the Medicine Garden and the Central Student Association’s (CSA) Food Bank and taking part in events with members of the Aboriginal Students Association (ASA).
3.5 Socio-Ecological Model

The Social-Ecological Model (SEM) is a framework that integrates multiple levels of influence including intrapersonal, interpersonal, institutional, community and public policy influences (Burke, Joseph, Pasick & Barker, 2009). The ecological component of the model refers to the examination of the relationships between organisms and their environments (Burke et al., 2009). SEM is based on the idea that health is influenced by many different components including physical environments, and social environments that are multi-dimensional (Burke et al., 2009). These human-environment interactions can be organized into separate levels including individual, family, organizational and population level (Burke et al., 2009). Another important aspect of this model is that there is reciprocal feedback across the different levels (Burk et al., 2009). This model provides the opportunity to address multiple levels to target behaviour change; individual behaviour at the intrapersonal and interpersonal level, organizational change at the community and institutional level, and policy change at the systems level (Burk et al., 2009).

The SEM is a complex model that has a holistic view as it incorporates several levels of influences on a particular phenomenon. This is congruent with Indigenous methodologies, which also emphasize a more real-world, whole view to research. Additionally, food systems are affected by many factors at various levels such as personal preference, living situation, food availability, food accessibility, and food prices. These factors fit well within the SEM predetermined levels and thus it makes sense to organize the research for the interviews using this model. Previous research examining
food consumption practices and use of traditional foods among Indigenous participants has adapted an ecological model (Laberge Gaudin, Receveur, Walz, Girard & Potvin, 2014). An ecological model is fitting because food choices are not simply influenced by individual factors, but also social and environmental factors and the interactions between the factors (Laberge Gaudin et al., 2014). A four-level ecological model, similar to the model by Laberge Gaudid et al. (2014) was used as the conceptual framework to organize the factors anticipated to be associated with the experiences of Indigenous university students navigating various food systems and environments.

3.6 Ethics

When working with Indigenous populations, it is especially important to be considerate when addressing ethical concerns. First, this research project was designed following the OFIFC Framework to create Indigenous research that is community driven, relevant to the community, and faithful to Indigenous identity. Further, I reviewed the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, including Chapter Nine Research Involving First Nations, Inuit and Métis Peoples of Canada. I followed the ethical considerations provided by the Tri-Council. Working with Indigenous populations, it is important to build relationships. I included a representative from the University of Guelph’s ARC as a member of the research committee, attended and requested feedback on the study from the ASA, and piloted interview questions with an Indigenous student. All of these ethical considerations guided the approach and design of the research in creating a study that was sensitive to the needs of Indigenous university students, and building a research proposal that is as authentic as possible.
Ethical approval for the study was received prior to data collection from the University of Guelph’s Research Ethics Board, REB# 17-09-33. (See Appendix A & B) Certification was obtained November 7th, 2017. I conducted the interviews and focus group only after informed consent was obtained (see Appendix C & D).

3.7 Study Setting and Food Environments

The University of Guelph was established over 50 years ago, with the founding colleges being established over 150 years ago (University of Guelph, n.d.). The University of Guelph is considered a mid-size university with approximately 21,000 undergraduate students. The centre of the campus is the University Centre, which acts as a hub for administrative services, student clubs, fast food eateries and restaurants. Guelph also has additional eateries across campus, located near and within student residents for easy access for students. The various types of food offered across campus include places for coffee such as Starbucks, LA Pitt, salad bars, vegetarian options, Mongolian BBQ, Mountain Dining Hall, Tim Hortons and others. See Appendix E for a complete list of dining options on campus.

The City of Guelph is located in southwestern Ontario. The city has a population of 130,000 residents as of 2016 (Statistics Canada, 2017). Guelph can be considered a “student town” as it is home to student residents during the academic school year. The University is located close to several privately owned and chain restaurants, grocery stores and Stone Road Mall. Additionally, in downtown Guelph, there is a farmer’s market on Saturdays. Students live both on-campus and off-campus in the City of
Guelph and commute from other towns and cities. There are also several grocery stores and restaurants across Guelph that students who live off-campus have access to.

3.8 Recruitment

A total of eight self-identified Indigenous undergraduate university students were recruited for this study. Potential participants responded to an email sent by the ARC to the Aboriginal student listerv, advertisements in the ARC’s newsletter and posters displayed in various locations across campus including the ARC. Six of the eight participants lived off-campus; the remaining two participants lived on-campus. (See Appendix F for Recruitment Poster)

A sample of four representatives from community and campus programs that provide food access and services to university students were recruited. Potential participants responded to an email sent to their professional email addresses or to the emails of organizations they were associated with. Half the participants were representatives on the University of Guelph campus, the other half were representatives from the community of Guelph. (See Appendix G for Recruitment email).

3.9 Participants

The target population was undergraduate University of Guelph students who self-identify as First Nations, Métis or Inuit, Indigenous or Aboriginal. As of 2015, there are 352 self-identified Indigenous students enrolled at the University of Guelph (C. Wehkamp, personal community, June 6, 2017). In order to reach saturation or the point when additional data fails to create new information (Braun & Clarke, 2013), a sample of
approximately eight students was recruited. This sample size was chosen as it falls within the recommended scope of 6-10 interviews for a small qualitative research project (Braun & Clarke, 2013). As well, the sample aimed to get a diversity of experiences and get maximum variation due to the exploratory nature of the study. Therefore, purposive sampling was used to recruit Indigenous students from various backgrounds and locations across Canada and those who live on- and off campus. Purposive sampling aims to generate in-depth and insightful understanding of the research topic (Braun & Clarke, 2013). Additionally, purposive sampling involves recruiting participants on the basis that they will be able to provide rich data (Braun & Clarke, 2013). I initially proposed to recruit four students who lived-on campus and four students who lived off-campus. During recruitment, six participants that lived off-campus, and two that lived on-campus agreed to participate.

As well, representatives from community agencies providing food security programming at the University of Guelph and in the greater community of Guelph were recruited. These participants provided important data about current and developing programs relevant to food access of Indigenous undergraduate students, and shared their experiences and knowledge of Indigenous undergraduate students. I initially proposed to conduct two focus groups, one with only Guelph community members and another with representatives from the University of Guelph campus. During recruitment, I decided to have one focus group that included representatives from both areas. University campus representatives included a coordinator of an agency that supports food access, and a staff member at the ARC. Participants from the community included
an Indigenous representative of North End Harvest, and an individual from Chalmer’s Community Services. Additional descriptive detail of the interview and focus group participants is included in Chapters 3 and 4.

3.10 Semi-structured Interview Guide

Face-to-face semi-structured interviews were conducted for this research as it provided rich and detailed data about participants’ experiences. As well, the semi-structured nature of the interviews allowed for flexibility to probe and ask unplanned questions to allow for elaboration and discovery of new topics that were important to the participants. Semi-structured interviews were conducted at an agreed upon location. The interviews were audio-recorded with permission from the participant. Interviews followed a semi-structured interview guide, began with background questions to collect demographic information and I was attentive to participants’ responses to adjust to probing and follow-up questions specific to the participant. The interview guide was reviewed by ARC staff and piloted by an Indigenous student. The main focus of the interviews was on students’ experiences regarding food access and their food systems using open-ended questions. The interview guide can be found in Appendix H.

Interviews took place at an agreed location on the University of Guelph campus. Interviews ranged from about 15 to 30 minutes depending on the length of the participants’ discussions. After the interview, the audio recordings were stored on my secure laptop. Post-interview notes were taken to reflect on non-verbal and situational data. The interviews were transcribed verbatim by an undergraduate student. To ensure confidentiality, pseudonyms were used for each participant and possible identifying
information was removed. Participants were given a fifty-dollar gift card as an incentive for participating in the interview.

3.11 Focus Group Guide

The focus group was relatively unstructured but guided by myself and focused on the topic of food systems of Indigenous university students. In addition to gathering data from each individual participant, the social interaction between the participants is an important component of gathering focus group data. The social aspect of the focus group can lead to collective sense-making on a topic, as well may mimic “real life” with people talking to each other rather than a researcher (Braun & Clarke, 2013). The focus group was conducted at the University of Guelph at an agreed upon time between the participants. The setting was neutral and refreshments were provided. The focus group was sixty-two minutes long and included four participants. The resulting conversation was audio-recorded with the permission of the participants. The focus group conversation was transcribed verbatim and to ensure confidentiality, pseudonyms were also used for focus group participants. The focus group guide can be found in Appendix I.

3.12 Data Analysis

Thematic analysis was used to analyze data for this study. Thematic analysis was chosen as it is considered a flexible method that is used to identify themes and patterns of meaning in data relating to the research question (Braun & Clarke, 2013). Experiential thematic analysis techniques were used as they focus on the participants’
standpoint (Braun & Clarke, 2013). The analysis followed the six phases by Braun & Clarke (2006). Data analysis was organized and coded and analyzed in NVIVO for Mac (QSR International, 2014). Phase one was familiarization with the data. I became immersed in the data to ensure familiarization with depth and breadth of the content. This was completed through transcription of the focus group conversation and checking for accuracy of the transcriptions of the interviews completed by the research volunteer. The data was read in an active way, looking for meanings, patterns and ideas. Phase two involved generating initial codes. I worked systematically throughout the entire data set to identify interesting aspects within the data that form the base of repeating patterns. Potential codes were organized in NVIVO as “nodes”. Phase three required searching for themes. Codes were organized into different potential themes based on the SEM. Additionally, codes that were important to the research questions were organized into potential themes. Phase four was the review of themes. Potential themes were reviewed on two levels. The first level involved examining the themes at the level of the coded extracts. I reviewed all the extracts for each theme and evaluated if they appear to form a coherent pattern. When the theme appeared to create a coherent pattern, the theme was examined at the second level. When the theme did not appear to form a coherent pattern, the theme was reworked by creating a new theme, incorporating it into an existing theme, or was discarded from analysis. The second level involved examining how the individual themes related to data set. The entire data set was reviewed by myself to ensure validity of the themes and that the thematic map accurately reflects meanings in the whole data set. Also, at this stage, any additional
codes that were missed during previous analysis were coded. Phase five involved defining and naming themes. Themes were analyzed to develop the narrative of theme relating to the research questions. Themes were examined independently, and for how the themes related to other themes as well as if sub-themes were necessary. This phase resulted in themes that are coherent, concise and have a clearly defined scope.

Phase six involved producing the report. The write up of the analysis of themes was done in a concise, logical, and coherent manner to represent the story across all the data. Examples were used from data to capture the essence of the data and ensure scientific rigour.

3.13 Methodological Strengths and Limitations

I was immersed with the data for a prolonged period to ensure a strong understanding of the content. Additionally, I practiced reflexivity throughout data collection and analysis. The transcriptions were member-checked by the interview participants. This allowed for the data to be as authentic as possible as the participants were given the opportunity to clarify and add any additional data that they deemed relevant to their interviews. Lastly, verbatim quotes were used in the analysis to demonstrate the interpretation of the results.

The study could not have proceeded so well and efficiently without the assistance of staff from the ARC and students from the ASA. Staff members at ARC were instrumental in assisting recruiting interview participants by sending out emails to lister vs and advertising the study in their space. Additionally, the ASA worked with me to
pilot the semi-structured interview guide and provided feedback and encouragement for the project.

Notwithstanding the strengths of the study as it was conducted, there are also limitations to report. The limitations relating to the methodology include uneven distribution of students who live on-campus and those who live-off campus as research participants. I aimed to recruit an even amount of on and off campus students, but more off-campus students volunteered to participate in the study. This may have happened for a few reasons: first, many more students live off-campus rather than on-campus, thus a larger number of potential off-campus students wished to participate. Additionally, the research incentive for interview was a $50 gift card for the University of Guelph’s Hospitality Services. This incentive may have been less meaningful for students who live on-campus as most of those students have student meal plan.

The focus group recruitment also can be considered a limitation. I reached out to many community representatives both on and off campus, but few responded. Participants of interest that were contacted but not able to participate included: representatives from the University of Guelph’s Student Financial Services and Hospitality Services, as well as a representative from the Guelph Food Bank was unavailable. These potential participants may not have participated in the focus group due to lack of incentive, their busy schedules and lack of interest in the study.

Qualitative research methodology is also associated with limitations including lack of generalizability, and issues with reliability and validity. Qualitative research,
unlike quantitative methods, may not be generalizable to a wider population (Braun & Clarke, 2013). Thus, the results from this study can only describe the experiences of the students and representatives interviewed.
4 Chapter 4: Results – Exploration of Indigenous University Students Food Systems

4.1 Introduction

Eight interviews were conducted with self-declared Indigenous undergraduate students at the University of Guelph. The interviews took place between November 2017 and March 2018. The overall purpose of the interviews was to explore participants’ experiences relating to their local food systems. Participants were asked to discuss their university experience, provide basic demographic information, where they purchase food, what foods are bought most often, difference in eating patterns since becoming a student, their living situation, and how often they purchase food on campus. The interview guide is found in Appendix H. Additionally, the students were asked to provide recommendations and ideas on how to support and navigate their local food environments. This chapter begins with describing the demographic details of the interview participants. An explanation of the model used to frame the results will be introduced, leading into the thematic results from the interviews. Recommendations shared by participants will also be presented as a separate section, along with an overall discussion of these results in relation to the published literature.

4.2 Participant Description

Eight undergraduate students, who self-identified as Indigenous, Aboriginal, Inuit, First Nation or Métis, participated in the study. The duration of the interviews ranged from fifteen to thirty minutes. Students came from a variety of academic majors.
including psychology, applied human nutrition, biological sciences, leadership and organizational management, international development, nutraceutical sciences and human kinetics. All but one of the participants were female. Six of the participants lived off-campus, and two lived-on campus at the time of their interviews. Two participants lived at home with their parents and siblings at the time of their interviews. Six participants were living with roommates. All of the eight participants were in their first post-secondary experience. Five out of the eight participants lived in southwestern Ontario before attending school, with their families. One of the five lived on a reserve in southwestern Ontario before moving to Guelph to attend school. The three remaining participants were from areas from a few hours north of southwestern Ontario. Additional demographic details organized by the order participants were interviewed are included in Table 4.1.

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Table 4.1. Participant Description (N=8)

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Location</th>
<th>Living Situation</th>
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<tbody>
<tr>
<td>Nora</td>
<td>Off-campus</td>
<td>Roommates</td>
</tr>
<tr>
<td>Tara</td>
<td>Off-campus</td>
<td>Roommates</td>
</tr>
<tr>
<td>Lindsey</td>
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<td>Susie</td>
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<td>Family</td>
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<td>Ellen</td>
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<td>Jane</td>
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<td>Roommates</td>
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<tr>
<td>Thomas</td>
<td>Off-campus</td>
<td>Family</td>
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</tbody>
</table>
4.3 The SEM Framework

The eight undergraduate students in this study identified several factors that influenced their experiences regarding food access and their local food systems as a student. The SEM integrates multiple levels of influences on a phenomenon (Burke et al., 2009). Additionally, the model emphasizes the importance how the environment influences individuals and how individuals influence the environment (Burke et al., 2009). This model was chosen to situate the results from this study as food systems are complex and affected by not only the physical environment, but social environments as well as personal factors such as knowledge, availability of food, financial capacity and others. The results of the thematic analysis of the interviews are organized based on an adaptation of the SEM into the following categories: individual, interpersonal and organizational. These categories were included in the model as they were the only categories brought up by the participants when asked about their food systems and environments (refer to Figure 1 for a visual representation of the results). Themes that were most commonly shared among participants are bolded in the model. The next section will begin with individual influences on food systems presented first, followed by interpersonal influences and lastly organizational influences. Note that recommendations made by students will be presented as a separate section from the model at the end of this chapter.
4.4 Individual Influences on Food Systems

Individual influences are important to consider when looking at food systems as they can be major determinants of food choice. I asked participants to describe where, why, and how food was accessed. All eight participants in this study brought up many individual themes that affected their personal food behaviours and food environments. Themes identified, food and nutrition knowledge, financial capacity, and convenience as
factors affecting participants dietary habits. These influences were brought up by most of the participants of the study and thus are important themes representing individual influences on food systems. This section will begin by presenting the results for nutrition and food preparation knowledge.

4.4.1 Food and Nutrition Knowledge

The majority of participants (six out of eight), believed that they had strong knowledge about food and nutrition. Two students were in fact nutrition majors at the University of Guelph. Through a variety of strategies and experiences that were described during their interviews, the group of participants overall were confident in their ability to prepare and cook healthy meals for themselves on a regular basis. Tara, for example, gained nutrition knowledge through self-education and the course content of her program of study, Applied Human Nutrition. When asked about how she felt she had gained culinary skills, she explained, “googling recipes and seeing how other people did it and then in some of my courses they teach you specific skills just because I’m in the food-related industry.”

Not all students were enrolled in a nutrition program where they would have been formally exposed to a food and nutrition curriculum of study. For some of the participants, other avenues of gaining food preparation knowledge came from learning through observation with their families before they came to university. Dana learned to cook and prepare food, “probably from my mom mostly.” When asked how she learned to prepare food for herself when she moved away from home for the first time, Dana explained that she took the initiative to learn more than her mother had taught her and
learned how to cook by, “reading through like cookbooks and stuff like that.” Similarly, Lindsey, a third-year student who lived off-campus, explained that she learned about cooking and food as soon as got to university. During her first year, she lived in East residence, which, unlike other on campus accommodations for students, provides students with a full kitchen. When asked how her personal preferences influenced her cooking skills, she replied, “I try new recipes.” By taking this initiative, Lindsey was able to learn many new cooking skills and figure out what healthy meals she enjoys eating. Jane gained food skills and knowledge through work experience before coming to the University of Guelph. When asked about her confidence in her cooking skills, Jane explained, “the year before I came to school I actually worked at the health food store, but it was like a vegan café so I also learned how to make like really really good food.”

When starting university and leaving the social network of their families and communities, another common experience for students was learning to cook independently. Cooking for one is a common theme among post-secondary students as many are moving away from their families for the first time and living in residence or living with roommates off-campus. Among the participants in the study, cooking just for themselves was a challenge identified by three of the eight students. Tara said, “yeah it’s hard, it’s challenging to cook for one, ‘cause I’m always having to make, like having left overs from a certain meal and I don’t want to always eat it the next day, but yeah… it is challenging to portion size.” Another student enjoyed cooking on their own. Lindsey mentioned she appreciated the fact that she had, “a lot more left over; now I like cooking and I have lunch for the next day.” For Lindsey, making food for just one person
meant that when she cooked dinner, the next day she had food for lunch that she could bring to campus, saving her time and money.

4.4.2 Financial Capacity

Another theme identified by students was budgeting and the cost of food living on their own. When it came to making decisions about what food to buy and where to buy it, the cost played an enormous role in navigating food systems for participants living on and off-campus. Students were aware of and generally preferred to shop at locations that advertised student discounts and chose less expensive grocers when making food choices. As expressed by Tara, “I pretty much solely get my food from Metro, which is down the street, because they do the student discount days. So I only go grocery shopping those days, however, sometimes I’ll go to the Food Basics, which is down the street.” Beyond choosing where to buy groceries, students also chose to purchase different foods from what they had available in their home environments before coming to the University of Guelph. When Lindsey was asked how her food habits had changed since coming to school she explained, “I eat a lot more like meat and stuff at home than I eat here. I also eat a lot more vegetarian food here than I would at home.” When asked why she ate less meat while at school, Lindsey replied, “it’s expensive.”

Other participants were interested in supporting sustainable food practices, but similarly found their preferences limited by cost. When asked about her preferred food practices, Tara stated, “I would love to like obviously eat local all the time and buy organic stuff, but it’s expensive.” Another participant, Susie, expressed interest in
buying fair trade and organic products to support good causes and her own health, but also prioritized making sure she had enough food to eat over these ideals.

4.4.3 Health Concerns

Three of the eight participants discussed healthy eating in their interviews. When asked about how her eating habits have changed since becoming a student, Nora explained that she, “used to be like a 180 pounds, throughout my three years of university I gained, I gained like 80 pounds.” Nora did not talk about why she gained weight, but noticed an increase in weight associated with attending university. When her doctor expressed concern, Nora realized she needed to make a change. Nora said, “It’s scary when the doctor’s telling you okay like you have to watch your weight, I guess I’ve got liver disease in my family, and high cholesterol and diabetes, so these are all like cautionary sense for me so she kind of just cautioned me to be careful with my weight and my eating habits.” In making healthy changes Nora said, “just within the past month have changed, just trying to lose weight and cut back and eat healthier.”

Similarly, Jane became more health conscious as a nutrition student as she learned more about her nutrient intake in several of her classes. When asked if there was any improvement she wanted to make when it came to eating and her goals for diet she said:

“Ever since I kind of starting school I’ve been more aware of like my nutritional intake and stuff so like, I’m on the vitamins depending on you know how the week if I’m super stressed and I haven’t been eating very much or I don’t have a very good stuff, I try to
supplement a little bit with vitamins and get it back on track. I think for the most part it’s pretty balanced but you know…”

Barriers to healthy eating despite wanting to consume more healthy foods could include coping with the stresses of being a student. Nora said, “I definitely eat more when I’m in a semester versus like in the summer I won’t eat as much, um, probably like 50% of the increase is just ‘cause of stress.”

4.4.4 Convenience

With the pressures of long days on campus and commuting to school, students often chose to eat at campus eateries and other fast food options rather than bringing meals that they prepared themselves. Nora explained, “I try to make food at home and bring it to campus. Sometimes when I’m just not on top of my stuff, I purchase food mainly in the University Centre at the market place there…on the odd occasion I’ll eat at Brass Taps.” Nora who commutes to campus from outside the Guelph area also described buying food on the way to and from campus for convenience. Nora said, “fast food’s convenient on the road especially when you commute everyday.” Other students who limited the amount of eating on campus did so through bringing food that they had prepared at home in Guelph. Lindsey said, “I try to bring my lunches.” Additionally, Thomas talked about preparing for long days by bringing extra food, “I make food and bring it for lunches so I carry around a second bag for lunch.”
4.5 Interpersonal Influences on Food Systems

According to this group of students, individual factors play an important role in navigating new and perhaps unfamiliar food systems, which ultimately influence food choice. Interpersonal factors are also of influence. University is a time when students are exposed to many new people, and thus are making new friends, living with roommates for the first time, and being away from home and their families for an extended period of time. Preparing food and eating are social practices and an important aspect of building these new social relationships. As part of their interviews, all of the student participants identified several social influences that impact their dietary habits and how their food acquisition patterns were impacted by these new social environments.

4.5.1 Social Influences on Health and Dietary Habits

The majority of students lived with other students. Only two out of the eight participants lived with family members. The other six students talked about the mainly positive influences their roommates had on food choices and preferences. Roommates were generally described as helpful and generous in terms of sharing food with each other. Tara was asked how her roommates influenced her eating habits. She responded, “well I live with my boyfriend, my partner, so sometimes I will cook a lot and he’ll eat with me because I just made too much.” By preparing meals with roommates, food costs can be shared and food waste can be decreased. Participants also discussed how roommates may unintentionally model healthy eating behaviours. Jane, a first-year student, discussed her roommate who helped her making healthy choices
when eating together. She described her roommate as, “very health conscious and she’s actually vegetarian, that helps.” According to Jane, the social pressure of being around her roommate influenced her to make more healthy eating choices. She did not want to be the only one eating unhealthy foods when they would eat together in residence. Social pressure to eat healthier, was also expressed by Dana. When asked how her roommates influenced her eating habits she replied, “One of the girls on my floor eats super healthy so whenever I go out with her you kind of feel guilty if you want something greasy, but, yeah they definitely do influence you for sure, because like if they’re eating something bad you’re like okay well maybe I will too.”

There were also challenges experienced among participants related to the food habits and interpersonal influences. While sharing meals with a roommate can make eating more enjoyable, each may have their own preferences and practices. Tara, for example, had different dietary restrictions compared to her boyfriend. She complained during her interview, “I don’t eat meat and he does, so we don’t really ever eat the same things, it’s hard.” Likewise, Lindsey had an arrangement with her roommate that was not always beneficial as roommates can have different food preferences, budgets and schedules. When discussing how her roommate influenced what she ate, Lindsey said, “my roommate definitely did because I was cooking for both her and I. We had a little set up going. I cooked and she cleaned. It was definitely harder ‘cause she’s a pickier of an eater….” In this situation, Lindsey and her roommate were able to share work related to cooking, but eventually they decided to end the arrangement due to differences in food preferences and prepare separate food for themselves.
Other influences that were expressed by the participants included friends and partners, however they were less commonly referenced than roommates. These effects were brought up by only three participants. When Thomas was asked how his friends affected his eating habits he said, “every once and a while if we hang out we’re like okay we’ll get some sushi or go get like right now a blizzard.” Thomas also talked about how his partner influenced his eating practices. He said that on special occasions he would, “treat yourself or like every once in a while like going on dates with my girlfriend or we’ll go out for dinner and get Indian [food].” Spending time with friends and partners outside of the regular routine, according to participants, is considered a fun and more social activity that often involves going out to eat. Roommates were influencing participants when it came to eating fast foods and sweets. As Lindsey explained, “you’re like one nudge away from, ‘ah I’ll eat out!’ Yeah exactly or like let’s go eat ice cream.” Dana experienced similar behaviours with her roommates. She said, “we live right next to a pizza place, and they love pizza, and sometimes I’ll already eat dinner and then 3 hours later they come home and they’re like guys let’s get pizza and I just can’t say no.”

While living away from home for the first time to attend university, participants had some form of support from their families. All of the participants talked about visiting home and family during the school year and being offered food to take with them back to school. Nora said, “my mom will try to make me eat while I’m at home or my partner’s family will try and offer food.” Another participant, Lindsey, talked about her mother giving her left overs when visiting home to take back to Guelph. Families also supported
students financially by buying groceries for them. Tara, whose parents live a few hours north of Guelph said this about her parents: “sometimes they’ll buy me groceries, but it’ll be like non-perishable things.”

Susie and Thomas lived at home with their families and had very different experiences compared to the rest of the participants with regard to social support. Susie expressed that her mother did the majority of the grocery shopping, although she was able to have some input on what was purchased. As she expressed, “if I want something or I’m interested in something, I’ll be like, ‘oh mom I kind of want this’ She’s very flexible or she’ll be like that’s gross don’t try it.” Thomas lives with three siblings in addition to his parents, and talked about their influences on his food consumption, “One of my younger [siblings] is in the process of turning vegetarian so every couple weeks each of the kids that are at home they make a meal or two … so definitely when they cook that would influence my food habits because they’re vegetarian meals, more beans and stuff.”

In addition to roommates and friends, family also influenced occasions when students would go out to eat. Lindsey said, “my family at home, we do pizza every Friday night like that kind of thing and here I don’t really do that.” Lindsey expressed that eating out was more common when at home and around her family, but eating out was too expensive while away at school. When she returned home, Lindsey and her family considered it a treat eat out and spend time together.
4.6 Organizational Influences of Food Systems

4.6.1 Campus Food Environments

Students spend a significant amount of time at school and therefore on campus during the course of an average week. The types of food that the University of Guelph offers, as well as the programs they offer to support students and their health and well-being have a significant impact on the dietary habits and food acquisition patterns of students. This section will present the results for the organizational influences by the University of Guelph, examining how it influences the participants’ food systems in terms of their physical environments living on and off campus. The University of Guelph has many outlets providing on-campus dining. There are dining outlets in most residences or located next to residences including the Lennox-Addington Pitt, Creelman Hall Market Place, Mountain and Windows Cafés, and Prairie Dining Hall. Additionally, there are several other specialized food service locations and places to get coffee across campus in such places as the University Centre (UC) which has a Starbucks, Subway, Tim Hortons, a restaurant Brass Taps, and others; at the Athletic Centre and in lecture buildings (see Appendix E).

During their interviews, all the participants talked about purchasing food on campus on a regular basis. One participant commuted to Guelph and she relied on purchasing food on campus when her days were running long and she would not make it back home to make dinner till later in the evening. For those who lived off-campus and did not commute, the most commonly accessed eateries were those in the central area of campus at the UC. Tara stated, “yeah I do buy food on campus. I have a commitment
that requires me to be in the UC all the time, so I always get hungry and I’ll buy food from the [cafeteria] in the UC or I will buy from the Bullring.” Both Susie and Thomas had similar habits and locations preferred to buy food on campus; Thomas said this about buying food on campus: “I do usually it’s either like subway or like the pita place in the UC.” According to Susie, when asked about if she bought food, she said only “sometimes” she purchases food on campus. Her preferences were to frequent the UC for the, “most cheap option, so it’ll either be Bullring or Subway. I’m not too adventurous.”

For the two students who lived on-campus, their experiences appeared to be based on the residence where they lived. Ellen lived in south residence, which has no facilities for students to prepare food for themselves. Jane lived in east residence, where as previously discussed, the suites include a kitchen, which allows students to cook food for themselves. Jane used eateries on campus such as Booster Juice and the UC for drinks and lunch, while she prepared her main meals for herself in residence. She explained that, during the day, she would “often go to like Booster Juice and depending on what’s in the house, what’s not in the house, and how much time I have, I’ll grab lunch while I’m out in the middle of the campus.” On other hand, Ellen expressed her preference for the cafeteria-style food locations housed within her residence,

“Well my first pick would be Prairie just cause it’s, they’re the healthier option. They have more of the stir fries and a better salad bar, but on the weekends we only can go
to Mountain. That’s the only one that’s open, which is more like fried foods and you can get wraps there which is good so probably Prairie would be my first pick.”

4.6.2 Cultural Support

Cultural supports for Indigenous students are offered at the University of Guelph through the ARC. It is a designated location that provides a safe space for Indigenous students to study, access resources, meet other students, and participate in activities and cultural events. ARC provides cultural support through their programming and events that include food. Nora discussed how ARC informs her of events going on, such as the weekly lunches. She said, “the knowledge is good ‘cause the ARC send out, I get the emails about you know, we’re having like a certain event that’s happening or we’re serving this this week or it’s Aboriginal resource week”. However, a majority of participants talked about how ARC was not as well-known as it could be. Lindsey mentioned:

“Even soup and bannock is not always that busy, but I wish more people knew about it and would come. I don’t know I guess they could maybe do some like section. I know they do the newsletters and stuff. Maybe they could post recipes or something like that, or have some kind of event, cooking event, cause they have a little kitchen in there.”

Soup and Bannock Wednesday is a program that the ASA runs every Wednesday at 12-1pm at the ARC from September to April during the academic year, where students can enjoy a free hot lunch and socialize with peers. Students found it difficult to access Soup and Bannock Wednesday, because it was offered every week at
the same time. This limited students’ availability to attend as Jane said: “I haven’t [been] but I see that they post it all the time and like I always want to go but I just can’t find the time”. Four other participants who lived both on and off campus expressed their interest in attending Soup and Bannock, but had not yet attended.

4.6.3 Institutional Support

There were varying experiences for participants relating to resources that the University of Guelph offers and uses to support students. The University of Guelph offers many supports to undergraduate students including supports for academics, health and well-being, student involvement, student services and technical services. As mentioned in the previous section, the ARC is a resource available to Indigenous students. Tara, who was a nutrition student, found she knew all about the resources offered at school, and how to go about accessing those resources. She commented:

“I feel like there is a lot of resources on campus that help with like even just like going to the Raithby house, I think is it, and you can just go and check and ask people for their advice, and it can be on any topic, which is nice, so just directing students to where they need to go proper referrals and even if you go to, I know Loblaws, that chain of grocery stores, they have a registered dietitian.”

Additionally, the University of Guelph offers nutrition courses as electives to students through which they can learn more about nutrition if they are interested. Both Nora and Dana expressed interest in taking nutrition courses to help increase their nutrition knowledge. Dana mentioned, “I’ve wanted to take some nutrition courses.”
Likewise, Nora discussed taking an elective course in her first year called “Life: Health and Well-being” that covered various topics including nutrition.

Around campus, there are various health and well-being resources to help students make healthier choices. Nora and Thomas discussed seeing SNAP (Student Nutrition Awareness Program) posters in campus eating areas. Thomas expressed interest in the posters, as they advertise tips for healthy snacking, study food and other topics important to students, “they’re usually pretty relevant like referencing the Game of Thrones or Brooklyn 99, things like that.” Additionally, Thomas used cards offered by the university hospitality to encourage students to eat more fresh fruit. Thomas discussed how the program, “reminds me they do have the cards where if you get a certain amount of fruits or something you get the stamp or hole punch on it or something so you get another one free (yeah), so that’s something that they’re doing well.”

4.7 Recommendations from Students to Support their Food Systems

The recommendations from students are presented separately from the model of rest of the interview data. Although these reflections are also based on the participants’ experiences, the recommendations are conveyed as positive changes that the students believe would support their food system and environments. Indigenous students provided their own ideas and suggestions for improving accessibility to foods both on and off campus in response when asked, ‘what supports would be the most helpful to you?’ There were suggestions that the University of Guelph could use to improve their food systems, as well as recommendations for the larger community of Guelph. For
example, when asked about what some of the gaps were regarding students and food knowledge, Nora said:

“When you’re dealing with especially like a university population and you know that students are eating more. Students are choosing convenience over nutrition. I would love, I don’t even know if we have anything like this. I would love the university to have some kind of wellness like education on food and how to be able to feed yourself properly. So that you know your brain function is working properly cause I know there a lot of diets and fads out there that the students might be following if they’re looking to lose weight, where you’re not eating any carbs, you’re not eating any fat. You know, fat is what we need for our brain to function. So I mean, I don’t feel like the knowledge or maybe the resources and knowledge is out there but maybe students don’t know where to find it.”

Nora suggested that the university could offer some kind of a course, or an education program to support students to make healthy choices, as they are just starting to make these decisions as adults. This program or course may be beneficial during the first year for students as they are transitioning into university, and would help set up healthy habits for their time during post-secondary education. There are education programs offered at the University of Guelph such as the HEAL program and cooking classes with dietitians, but this sample of students lacked awareness of these programs.
Additionally, two students recommended a farmer’s market on campus. Tara, when asked why a farmer’s market is a good idea for students said, “having like a student day for local farmers to come and like maybe not even like sample their stuff to get it more out there so people would maybe buy more and then the price won’t be as high.” To make the farmers’ market more interesting to students, Tara recommended, “student days where they do like even like 10% off which isn’t that much and then you would make people more inclined to go purchase their stuff because I know even if it’s like a small discount off I’m like oh like sale.” Additionally, having a farmer’s market on campus may increase accessibility for students that are generally limited by the city’s transportation system. Lindsey expressed interest in having the market on campus, and said, “If it was here that would be really awesome because I’m south side, so I have to take 2 busses to get there.” On campus there is a farmer’s market but it is only run during the growing season, rather than the academic year, limiting student accessibility to it.

Students also provided recommendations for the Hospitality Services at the University of Guelph. Lindsey expressed that the university could do better in regards to offering more variety of fresh fruits on campus, stating, “I just want to go to the [cafeteria] and get just like berries and like things like that, that kind of fruit, and they don’t really have that option.” Ellen, a student who lived on-campus, recommended that the salad bar be improved. She said, “it would be nicer if we had a better like salad bar or something… like variety I think.” Ellen also expressed concerns for the limited
availability of vegetarian options and wished there was an increased variety in the vegetarian options.

Students also provided recommendations for ARC. Lindsey suggested a program that ARC could run that involves teaching students about food preparation. She suggested, “they could post recipes or like something like that, or have some kind of event, cooking event, cause they have a little kitchen in there.” Lindsey further added, “like a monthly cooking session with the elders too that would be cool.”

Students also provided suggestions that would help them when cooking for themselves. Susie suggested, “some sort of club where people came and made their food together and that way it was cheaper cause you know how if you buy bulk things its cheaper.” Dana additionally wished that grocery stores sold portions for one person: “Smaller portions of their vegetables instead of like a big box of like lettuce or something that you would get from the grocery story, like if they had smaller portions that would definitely help, cause then I’m not spending all that money and feeling like I’m wasting money when I’m throwing half of it away.”

Students offered recommendations based on their unique experiences at the University of Guelph and provided ideas for supports and programs that they believe would be the most helpful to them. Students addressed supports in various areas including increasing knowledge about cooking and nutrition, possibly getting support from Elders and getting help when shopping and cooking for one.
4.8 Discussion

The SEM was used as a framework to explore the various influences, individual, interpersonal and institutional that affect the food systems of Indigenous students. The SEM integrates multiple levels of influence including intrapersonal, interpersonal, organizational, community and public policy influences (Burke et al., 2009). Overall, the findings from these interviews provide information on how individual influences such as knowledge, financial capacity, and health concerns affect food systems by influencing food choices and food purchasing habits. Additionally, interpersonal influences including social circumstances influenced participants’ dietary habits. Organizational influences affected the dietary habits of the participants through the food available on campus, courses offered to students about health and nutrition and programs and supports available to students. These findings are comparable with other research on university students’ food systems but also provide some novel insights as this study examined the unique population of Indigenous university students. For example, community and public policy influences were not represented in the results section for the students as students did not bring up these influences on their food systems during their interviews. Students may be lacking local networks that connect them to the wider community even though the majority of participants lived off campus. Interestingly, students did not provide many details about accessing foods off campus, compared to the details provided about on campus access. This may due to the fact that the students may be spending most of their time on campus, going to class and studying and thus may be where they access most of their food.
4.8.1 Personal/Individual Influences

Findings from the current study found that a majority of the participants had knowledge about food preparation techniques and skills. This is similar to the results found by Wilson, Matthews, Seabrook & Dworatzek (2017) that reported 63% of undergraduate students at another Canadian university felt comfortable preparing meals. Further, as most of the students in the current study (six out of the eight) were beyond their first year of study, it would be expected that they would have increased food skills as they would have been living on their own and preparing food for themselves since starting school. Wilson et al. (2017) also found that students who lived away from their parental home for more than one year had higher food skills scores compared to students who had been living away for less than one year. Additionally, it appears that students who wanted to participate in a study about food were interested in food and nutrition and would therefore already have an interest in food skills and preparation.

A study about the eating habits of university students in Greece found that students did not show significant changes in their eating habits after coming to university (Papadaki, Hondros, Scott & Kapsokefalou, 2007). Participants in the current study discussed how their habits had changed since becoming a student. Eating habits changed for two participants. One reported eating an increasing amount of vegetarian meals and eating out less. They found that eating meat, purchasing take out and going out to restaurants are too expensive. The other reported a significant change in how
often she ate out. She considered her eating habits to not be healthy and recent discussions with her doctor made her want to make changes to start a healthier lifestyle.

Stress was brought up as an influence on eating habits for one participant, Nora. A study in Australia found that more than half of university students in the studied sample were stressed, with females more likely to experience stress (Papier, Ahmed, Lee & Wiseman, 2015). Papier et al. (2015) found that females that experienced mild to moderate stress were more likely to eat processed foods. Nora did not discuss eating processed food while stressed but indicated an increase in consumption of food due to stress. Another study at an Australian university examined student’s food purchasing, preferences and opinions about food on campus. (Tam, Yassa, Parker, O’Conner & Allman-Farinelli, 2017). The study found that the greatest determinant to purchasing food on campus was convenience. Convenience was also highlighted in other studies examining students’ eating behaviours in Europe (Deliens, Clarys, De Bourdeaudhuji & Deforche, 2014). As indicated in the results, all eight participants in the current study similarly conveyed that they purchased foods on campus for various reasons relating to convenience during busy times of the semester and some working long hours on campus.

Cooking for one was a topic found in the literature in other studies among the older adult population (Chojenta, Mingay, Gresham & Byles, 2018; Nickrand & Brock, 2017; & Whitelock & Ensaff 2018). These studies looked at interventions and programs for older adults living in the community, and supporting them to make healthy choices when living on their own (Chojenta et al., 2018; Nickrand & Brock, 2017; & Whitelock &
Ensaff 2018). The results from the current study found that cooking for one was also a common theme for Indigenous university students. Participants identified both cons and pros of cooking for one including difficulty creating portions for just one meal and making enough food for leftovers for the next day. As students are living on their own and away from their parents, cooking for one becomes a reality for students as they are no longer eating meals with their families and may not cook meals with their roommates.

Cost of food for post-secondary students in North America and Europe is discussed in the literature as a major influence of dietary choices (Deliens et al. 2014; Entz et al. 2017; Silverthorn, 2016; & Tam et al. 2017). The European study by Deliens et al. (2014) identified that the cost of food and individual food budget influenced students’ food choices, with students choosing less expensive options, even if they are unhealthy. Also, the study by Entz et al. (2017) found that one fifth of University of Manitoba students who participated in the study identified cost of food as a factor affecting their access to food. Further, cost was found to be a major determinant of food choice for university students in Australia (Tam et al. 2017). The current study provided an opportunity for Indigenous students to discuss how the cost of food impacted their food systems and food choices. Tara explained that because of the cost of food, she chose to purchase her groceries on student discount day. Additionally, Lindsey discussed how her eating habits changed towards eating more vegetarian while at school as eating meat can be costly. The results from the current study allowed
Indigenous students to express how the cost of food affected their food choices in their own words and share their possibly unique experiences adapting to food costs.

4.8.2 Social Circumstances and Food Systems

There were various social circumstances, influences and supports that this study identified including roommates, family, and friends. In their study looking at European undergraduate students, Deliens et al. (2014) found that peer pressure from roommates negatively affected students’ dietary habits. These results differ from the findings of the current study, as the Indigenous undergraduate student participants mainly discussed how friends and roommates influenced them to eat healthier by example. These same friends and roommates could however, also influence participants to make poor dietary decisions such as eating out more. The results from the Indigenous students highlight that both positive and negative influences can impact the dietary habits.

Family support was discussed in the study by Deliens et al. (2014). Social support from family was identified as an influence to eating behaviours, such as helping students during exam period by preparing food for them. Likewise, in this current study, students identified that their families helped them by buying them groceries and providing them leftovers from home to bring to school. Thomas also discussed how one of the influences on his choice to eat out was his girlfriend. This was also found in the literature, that food consumption is an important part of the social aspect of dating as it helps to bring people together, and to strengthen and maintain social bonds (Amiraian & Sobal, 2009).
4.8.3 Organizational

There is limited literature on the supports that are specific for Indigenous university students provided by institutions. This study demonstrated that Indigenous students did know that the resource, ARC was available to them, and some participants used programs such as Soup and Bannock Wednesday, Aboriginal Awareness Week events, and being a part of the listerv to learn about upcoming events and programs. Participants also expressed interest in increasing their awareness about the events ARC advertises to other Indigenous students, as well as all students on campus. Participants did not mention a need for increased awareness of other food related programming.

A qualitative study using focus groups in Europe examined the perceived determinants of eating behaviours among university students (Tam et al., 2014). The authors found that the university had influences on the food systems of students through the availability of food on campus. Other studies in the literature also identified that food available on campus influenced food choices of students (Deliens et al. 2014; Entz et al. 2017; Stewin, 2013). All participants in this current study accessed food on campus; the most commonly accessed food on campus was at the University Centre for students who lived off-campus. For students who lived on-campus, the places most commonly frequented were those eateries located within or next to the residences they resided in. The University of Guelph offers a variety of options on campus including options that are healthy such as salad bars, fresh fruit and vegetarian options. As well,
the University has more fast food options such as Pizza Pizza, Subway, grills with burgers, fries and other deep-fried foods. Criteria for student food choices on campus included: “most cheap option,” and “the healthier option.” Results from the current study are more detailed than studies in the literature, as it discussed the variety of options available to students on campus and the typical choices that they make when eating, along with the reasons why.

Thomas, a participant in this study, discussed the SNAP program at the University of Guelph in which students have loyalty cards for fruits, and when they purchase a certain number of fruits they get free fruits. The study by Tam et al. (2017) found that half of participants had campus loyalty cards, and those cards influenced 70% of participants’ food purchasing habits. The University of Guelph is using a loyalty program to specifically increase fruit consumption on campus. Thomas discussed being aware of the program and thought it was a good idea. Also, Thomas talked about the posters around the University Centre that promote healthy eating and are used for nutrition education of students. These institutional factors are unique as the University of Guelph is promoting healthy eating behaviours and nutrition education on campus.

4.8.4 Recommendations

The recommendations that Indigenous students suggested to improve their food systems are similar to those previously expressed by food insecure students in Canada (Entz et al., 2017; Meldrum & Willows, 2006). Indigenous students at the University of Guelph recommended more student discounts and cooking groups to decrease personal food costs. A study in Alberta found that students used coping mechanisms to
address their food insecurity including working part-time, using food banks, dumpster diving and use of credit cards (Entz et al., 2017). Further, the recommendations made by Meldrum and Willows (2006) are similar to the recommendations made by students in this study including collective kitchens and more discount days at grocery stores and food markets (Meldrum & Willows, 2006). Literature in Europe found similar recommendations to the ones made by the participants in the current study (Deliens et al. 2014). In the article by Deliens et al. (2014) students recommended having a health class discussing healthy eating, similar to what Nora recommended as reported in the results. As well, students recommended more variety of healthy choices available on campus, similar to suggestions by Ellen as mentioned in the results.
Chapter 5: Results – Exploration of Institutional and Community Service Providers Perceptions of Indigenous Students’ Food Systems

5.1 Introduction

One focus group was conducted at the University of Guelph with representatives from the campus and larger community. The focus group took place in April 2018 and included a total of four participants. The overall purpose of the focus group was to explore the perceptions of program developers (on-campus) and service providers (in the Guelph community) about the specific needs of Indigenous university students; and identify current and developing programs relevant to Indigenous students on campus and in the Guelph community. This chapter begins with a detailed description of the focus group participants. Further, the chapter covers the results from the focus group and the themes identified including awareness, stigma, social support and relationship building and connectedness. The chapter will conclude with a discussion of the overall results in relation to the published literature.

5.2 Focus Group Participants Demographics and Description

Four employees from the University of Guelph, the Central Student Association and the larger community of Guelph participated in the focus group. The duration of the focus group was sixty-three minutes. Two participants worked on campus at the University of Guelph and two represented the larger Guelph community. From the University of Guelph, Rachel was an Indigenous staff member. Kelly was from an organization that addresses food insecurity of students at the University of Guelph.
From the community, Drew was from a local agency that provides food security programming and emergency food assistance. Olivia was Indigenous community member and leader of an initiative supporting food access to the community. See Table 5.1 for more detail about participants.

Table 5.1 Focus Group Participant Description

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>University/Community</th>
<th>Expert in area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drew</td>
<td>Community</td>
<td>Local emergency food provider</td>
</tr>
<tr>
<td>Rachel</td>
<td>University</td>
<td>Indigenous staff member</td>
</tr>
<tr>
<td>Olivia</td>
<td>Community</td>
<td>Indigenous community member</td>
</tr>
<tr>
<td>Kelly</td>
<td>University</td>
<td>On-campus emergency food provider</td>
</tr>
</tbody>
</table>

5.3 Model Context

The focus group participants in this study discussed several factors that from their experiences influenced students’ food systems and their accessing of food resources on and off-campus. A model was created based on the themes identified during the thematic analysis. The overarching themes that influence students accessing university and community resources included: social support, awareness, connectedness and
stigma. Some of these influences such as social support and relationship building with connectedness were found to be related as social support helps students to be more connected to resources and being connected to resources increases students’ social support and this is represented through bidirectional arrows. Further, social support and connectedness were themes that increased students’ access to food resources at the university and in the community, as indicated on the right side of the model. Lack of awareness and stigma were identified as barriers to students accessing food resources, as represented at the left side of the model. Refer to Figure 2 for visual representation of the focus group’s results.

Figure 2: Influences of Accessing Institutional and Community Food Resources
5.4 Lack of Awareness

From the perspectives of the focus group participants, there are many perceived personal barriers that participants have come across when interacting with students. Drew, a community representative, who had no personal experience with Indigenous students discussed lack of awareness of resources. He said:

“Whether they be Indigenous or not probably pretty much mostly trapped in this kinda bubble here. So they’re not seeing outside into the community, places like ourselves, the North End Market, or Hope House. It would be part of the challenge for some of those students. ‘Cause there are other resources in the city but they are probably not aware of them.”

Rachel, an Indigenous staff member from the university also commented: “they don’t realize they can access other services other than the on-campus food bank.” ARC also has its own food pantry. Rachel mentioned, “It’s not necessarily publicly known but it is made known to our students, the ARC, Aboriginal Resource Centre, has a pantry that students can take from. It’s stocked by our Aboriginal Student Association.” From these experiences, of Drew and Rachel it was common that students believe they can only access resources that the University provides for them. But as residents of the City of Guelph, they are part of a larger community, along with being part of the urban Indigenous community and should be able to access local resources including the City of Guelph Food Bank, local food pantries and community-based food programming.
On campus, the CSA student food bank provides access for students to emergency food, anti-poverty resources and referrals to other supports. This service is available to all University of Guelph students. The student food bank provides a maximum of 30 items per person in the family per month to each student visitor. When asked about limitations of the CSA student food bank, Kelly said, “I also don’t think our food bank is hitting everybody. You know people don’t know about us till maybe their 3rd or 4th year and then they might have been food insecure for a few years.”

When asked about some experiences with Indigenous students accessing the on-campus services provided. Kelly said, “so I know of two people who are First Nations who use the service. That’s because, they’ve told me they are just thankful that the service is there for them if they need it.” Kelly highlighted the importance trying to connect and meet all of the needs of the visitors to the food bank. She talked about asking the Indigenous students if she could support them by questioning, “what are some of the culturally appropriate items we could be providing for you. And that’s never come up for [students from an] Indigenous background.” The student participants provided minimal feedback on suggestions to better support Indigenous students at the food bank, and therefore the food bank coordinator indicated there may be limited awareness of the unique cultural supports that they do need. It is still important that the food bank is aware of the diverse populations of students accessing these resources and tries to get that feedback from students. Further, Kelly explained that students may be hesitant to provide that feedback, and that she is interested in hearing from Indigenous students.
5.5 Social Support and Relationship Building

In addition to limited awareness that students have about accessing community resources, students may need additional social support to access those resources. Through social support and building relationships with students, knowledgeable support representatives are able to help students learn and gain access to various resources that they need. ARC provides personal counselling and wellness support and help Indigenous students with academic concerns, tutoring support, financial issues, personal matters, and housing. The ARC programming is there to help create connections with peers and local community resources. Also, Rachel, an Indigenous staff member talked about her experiences working with Indigenous students. She mentioned that she has spoken with many students with perceived barriers about food emergency systems, stating, “they’re like well I’m registered with the student food bank, so I can’t, I don’t qualify anywhere else. And so it’s breaking, again that’s just a perceived barrier. That doesn’t actually exist but letting them know these services exist!”

In order to help Indigenous students, it is therefore important to increase awareness about these perceived barriers and the resources offered by the institution and community. Additionally, it is important for the staff to make connections with the students they work with. Rachel, said:

“It’s that relationship building. Maybe we can go together. If you’re nervous to walk through those doors, you’re by yourself, do you want to bring a friend? Do you want me to come with you? What would help you get through those doors? To ask those questions but it can be really challenging. And I don’t think that’s just Indigenous
students. It’s everybody. I think, they think that if they access one but they cannot access the others right. And that’s not the necessarily true.”

By creating opportunities for social interaction and building relationships with Indigenous students, and all students and on campus staff, it could help students access the resources they need as individuals to support themselves through food. Indigenous students may not want or necessarily need Indigenous specific supports, programs, or community, Rachel said, “being cognizant and respectful of their choices and their journey with their identity. They may not be ready to engage in their Indigenous heritage yet.” Rachel also explained that some students are here just to get a degree, and it is important to respect those students’ needs and not force cultural supports on them. Rachel highlighted the importance of trying to help students the way they need; she said:

“Finding that balance of where students are at and what they are looking for when it comes to financial security and food security. The students that I see, that are looking, that are struggling with access to healthy, affordable foods, they are not necessarily thinking traditional foods or wild foods.”

5.6 Connectedness

The ARC also provides many opportunities to support connectedness and peer support for students through their programing in many ways. Once Indigenous students have social support such as through ARC staff, they are provided with other resources that help connect students to programming at the University and within the community.
The Aboriginal Student Association, ASA is a student club on campus that does a lot of work in creating social and cultural events for students. As previously discussed by the student participants in the previous chapter, the ASA runs the weekly Soup and Bannock lunch. Rachel described the weekly event:

“[It] is a free hot lunch every week...no questions asked. It is open to anyone. So again, those students who maybe are Indigenous but haven’t identified or nervous of coming in. They can just come in and you know, no one is going to know. And it’s like eat and run, take food and go, there’s no expectation to stay and socialize, but there you can if you choose. It’s very open.”

ARC supports students if they are interested in learning about traditional foods and feeling connected to culture. The location provides opportunities for Indigenous students to come together. Rachel also talked about what she has experienced seeing students learn from each other. She said: “they’ll share their traditions with one another because it’s very diverse across the First Nations, Métis, populations. But they are doing a lot of those sharings and then but then there are others never eaten wild rice.”

Additionally, for the events that ARC organizes they are trying to increase knowledge of traditional foods. Rachel said, “ARC works closely with the Hospitality Services on campus and gives them recipes and works with them on menus for like key times of the year like Aboriginal Awareness Week, bringing in some of those like more wild foods.”

Rachel went on to say that, “all of ARC events have food and it’s always free.” This increased traditional food awareness and access not necessarily only for Indigenous students, but for all students at the University of Guelph.
In the larger Indigenous community of Guelph, Olivia also talked about events aimed at connecting a diverse group of individuals around food. She explained: “we have seasonal feasts and they’ve been done in as a traditional ways in you can urban setting and in a community that has a combination of First Nations, Métis and Inuit.” The feasts occur four times a year and involve the sharing of food. Olivia said, “everybody will bring a dish. But certainly as a community we make sure there is core traditional foods present and there is nothing left over at the end. We always over produce and everybody always brings their feast plate and container. And afterwards you know that bannock, that three sisters soup, goes home.” The feasts provide an opportunity for the Indigenous community in Guelph to come together.

When asked about student participation in feasts, Olivia said: “we do see some university students that do participate.” Students hear about these feasts from staff on campus. When asked how she supported students getting to feasts, Rachel gave the example of, “making those connection with community events like the feasts Olivia was, all the community events to students. You know there’s more available to them than just what’s on campus. To get them out of the campus bubble.” Rachel also explained how feasts can benefit students who may be experiencing food insecurity, suggesting, “letting them know about feasts. Feasts have free food!” When discussing what may stop Indigenous students from hesitating to attend feasts, Rachel said:

“Posters will say bring a dish and your feast bundle. And they’re like I can’t. And I say no, go. Don’t let that be a barrier. Its open, they want you there. So building those lines of communication and encouraging students to not let those kinds of things be barriers
to them is really important too. It’s just nervousness right. They’ve never been to a feast.
And they’re like what’s a feast bundle? And I’m like literally a plate and knife, fork and
you know. You know to bring leftovers for whatever you feel you need to bring to that
feast. Oh but I can’t even afford to bring a bag of chips. And I’m like go, you just go.”

Additionally, the feasts provide an opportunity for Indigenous students to explore
traditional and wild foods and make cultural connections. Students may come to Guelph
with limited knowledge or be unfamiliar with sources in a new and perhaps unfamiliar
territory. Rachel explained, “a lot of students are urban, are not coming from remote
locations, remote communities. They didn’t grow up eating wild foods, for them it’s not
something they even expect.” Olivia talked about the positive aspects of feasts for
students out in the larger community as a way of making connections through learning.
She said, “when students who come to gatherings or other events um some of them
that opens an opportunity if they know nothing about their cultural foods to learn it in a
really safe, relaxed, non-pressured sort of atmosphere.”

The participants in the focus group mentioned that the various service providers
are able to network and share connections between resources, which is important for
increased accessibility to resources for Indigenous students and the community of
Guelph. During the focus group, the organization Peas in the Pod was discussed. Kelly
described the group, “it’s all of, the ten emergency food providers… and the beauty of
that group is that not only can we share resources with each other. But we can also
share knowledge.” This can be considered an asset for the community because if
someone is coming into the Guelph Food Bank they can be referred and connected with
other emergency food services such as other food pantries and resources that meet their specific needs. Drew explained how he personally felt connected, stating, “I think that one of things that strikes me and I have a fair amount of connection into other food agencies in town.” Rachel also mentioned the importance of creating connections for students with various resources, “making those connections with community and with community events like the feasts.”

5.7 Stigma

Drew noted that, “the single most significant barrier to accessing food pantries is stigma.” The stigma that students experience when accessing food emergency resources can encompass many things such as invasive questioning, or stigma that the individual feels for being judged for using the resource. In particular, when discussing Indigenous student access to community resources, it was difficult for service providers to provide data. Rachel explained, “They may check the box that says ‘Caucasian’ because they are worried about discrimination in those services.” Also, to decrease discrimination and stigma, community providers only ask clients for necessary information. Drew commented, “we ask for nothing more than a name and an address. That’s all. And we don’t necessarily ask for an address, because some people don’t even have an address.” Kelly noted that on the campus food bank, “you need to prove they’re a student…we ask for the student ID card.” She also explained that if a person comes in without a student card, the coordinator will give access to another resource, as she does not want them to miss out on the service.
5.8 Discussion

A model was created to explore the various influences that affect the food systems of Indigenous students from the perspectives of community and institutional representatives. Main influences included lack of awareness, social support, connectedness and stigma. On the left side of the model, the two themes that are considered barriers are lack of awareness and stigma. According to the focus group discussion, these are potential factors limit Indigenous students from being aware of resources with their local food systems on and off-campus, such as accessing emergency food services. On the right side of the model, the themes social support and connectedness, are perceived as linkages for students to their local food systems by the group of focus group participants. By having social support and feeling connected, Indigenous students are better able to expand their local food systems and participate in cultural and social food events such as Soup and Bannock Wednesday and feasts in the community. Additionally, focus group participants were asked to share their experiences with Indigenous students, as well as programs that may be of interest to Indigenous students. These findings provide some novel insights, as this study examined the unique population of Indigenous university students.

5.8.1 Awareness

Findings from the focus group indicate that there is a lack of awareness of resources available to students. Studies from the literature on community food banks in the United States do not mention university students accessing the resource; rather they reported that food bank users tend to be older males and those from households
below the poverty line (Clancy, Bowering & Poppendieck, 1991; Lenhart & Read, 1989). In Canada, there is also limited data on whether students, or in particular Indigenous students are accessing resources (Food Bank 2016; Starkey, Kuhnlein, & Gray-Donald, 1998; Ontario Association of Food Banks, 2017). These findings are similar to the results reported in the current study, as food emergency programs out in the community have limited knowledge of students accessing the resources. Additionally, there is limited knowledge about Indigenous groups accessing food banks either on or off-reserve. However, one article in Iqaluit, Nunavut examined the characteristics of community food programs’ users and found that those who use these programs were more likely to be Inuit, be unemployed, and have not completed high school compared to the general Iqaluit population (Ford et al., 2012).

University student food bank use in North America is comparatively well documented in North America (Entz et al., 2017; Jessri et al., 2014; Farahbakhsh et al., 2017; Hanbazaza et al., 2017; Silverthorn, 2016). The study by Entz et al. (2017) based in Manitoba found that not many students used food banks as a coping strategy to deal with food insecurity. A study at the University of Alberta found that students who did use food banks were international students, graduate students and older students (Hanbazaza et al., 2017). A study by Olauson et al. (2018) at the University of Saskatchewan included Indigenous students as part of the sample of food insecure students, but did not discuss if they used food banks. These findings are similar to the results found in the current study that the CSA food bank is not reaching all the students needing the resource and that there is limited knowledge about Indigenous students
accessing this resource. The food bank is more of an individualistic approach to food systems and does not appear to promote connectedness, like other resources mentioned previously such as Soup and Bannock Wednesday lunch at ARC and feasts in the community.

5.8.2 Social Support and Relationship Building and Connectedness

Social support was identified as a major theme in terms of what influences students to access emergency food resources. In the current study, ARC staff work with self-identified Indigenous students to help them increase access to resources that they need. An Australian study documented the importance of Aboriginal Support Centres for supporting students, however the types of assistance provided was not specified (Oliver, Grote, Rochscouste & Dann, 2015). A study at a Canadian post-secondary institution found that creating positive and supportive relationships between Indigenous students and their peers and instructors are important to student success (Gallop & Bastien, 2016). Another study that exclusively examined the role of the ARC at the University of Guelph, found that ARC builds a sense of community, fosters the knowledge and enhancement of identity, and provides a safe place for Indigenous students (Smith & Varghese, 2016). The findings from the literature are comparable to the results in the current study, as ARC as a cultural centre is important to support student success, and facilitates building relationships to help students access the resources that they need including the student food bank, feasts and other community resources.
There is no literature to my knowledge that has investigated how students use transportation to access resources, nor are there published studies that discuss Indigenous students attending feasts. As reported in the results, transportation is important as it increases accessibility across the community of Guelph to reach emergency food programs such as food pantries, food banks, and other organizations. Feasts can also offer Indigenous students an opportunity to explore their Indigenous identity if they choose and connect with culture and provide social support and protection from food insecurity.

5.8.3 Stigma

The stigma of accessing food emergency services is discussed in the literature among university students (Hanbazaza et al. 2017; Purdam, Garret & Esmail, 2016; Farahbakhsh et al., 2017). Articles from Canadian universities identified that students may feel stigma when accessing campus food banks and that this stops them from accessing this resource (Hanbazaza et al., 2017; Farahbakhsh et al., 2017). Likewise, in the current study, stigma was stated by services providers to be one of the major barriers to accessing emergency food programs and community representatives expanded on how they worked to decrease stigma for their clients. There was no scientific literature that explored how service providers can decrease stigma.
Chapter 6: Conclusions and Recommendations

6.1 Summary

Attending university occurs at a critical period in a young adult life in which they are going through the transition from adolescents who live at home to becoming adults living on their own and taking care of themselves. Circumstances of food insecurity among students have been identified in the literature (Entz et al., 2017; Gaines et al., 2014; Gallegos et al., 2014; Meldrum & Willows, 2006). However, Indigenous students have been overlooked in the research. This is a concern since post-secondary students, as well as the Indigenous population, have been identified as vulnerable to food insecurity (Entz et al., 2017; Gadacz, 2014; Gaines et al., 2014; Gallegos et al., 2014; Meldrum & Willows, 2006; Tarasuk et al., 2016; Willows, et al., 2011). Therefore, this study explored undergraduate Indigenous students’ experiences with institutional and community food systems in an urban setting at the University of Guelph and larger community of Guelph, Ontario. The study investigated the perceptions of Indigenous community members and service providers of the specific needs of Indigenous university students. The study used qualitative methods that included face-to-face interviews with students and a focus group with institutional and community representatives. Additionally, the research was sensitive to Indigenous research methodologies and the USAI Framework by the OFIFC to guide the research. Results from the interviews with the eight undergraduate self-declared Indigenous students were presented using the SEM. Participants identified several themes that influenced
their food systems and were organized into individual, interpersonal and organizational levels in the SEM. Themes identified include food and nutrition knowledge, financial capacity, convenience, social influences, campus food environment, cultural support and institutional support. For the focus group, there were four participants, employees from the University of Guelph campus and members from the community of Guelph. A model was created to represent the results based on the themes identified from the focus group data. Linkages provided by social support and connectedness expanded Indigenous students’ local food systems. Barriers to local food systems for students identified during the focus group were lack of awareness and stigma. There were strengths and limitations to the research process and results, which will be discussed in the next section.

6.2 Strengths and Limitations

The main strength of this study is that it is the first to solely explore Indigenous university students’ food systems. As well, this is one of a few studies to examine food systems and food security among university students using qualitative methodologies. A strength of qualitative research is that the data presented is rich and descriptive and allows the voices of the participants to be presented in their own words (Braun & Clarke, 2013). By conducting face-to-face interviews and focus groups, we were able to get information directly from Indigenous students, in their own words and with their own recommendations and the experiences of service providers with their interactions with Indigenous students and the available food related programs for students. Additionally, this study is unique as it investigated the local food environments of Indigenous
students from a variety of perspectives such as students who live on-campus and off-campus, university representatives and community representatives.

One of the study’s limitation of the study was the recruitment since only two on-campus participants were recruited, leading to an over-representation of data from those who live off-campus in the study. There are several reasons why this may have happened. First, the incentive to participate was a $50 gift card to hospitality services for the University of Guelph, which may not have been of interest to students who live on campus and already have meal plans. As well, the population of students who live on-campus is much smaller than the population of students who live off-campus. Students who tend to live on-campus are those in first year, international students and a few upper year students. Therefore, there seems to be a small number of participants that self-identify as Indigenous and live on-campus. Initially, two focus groups were designed to capture the separate perspectives of on campus and off campus participants. Recruiting participants for two focus groups from the University of Guelph and the community of Guelph was challenging. Stakeholders of interest that were invited to participate in the study but who were unable to participate included representatives from Hospitality Services and Student Financial Services at the University of Guelph, along with a staff member from the Guelph Food Bank. Due to these recruitment limitations, the overall sample size was small, with only eight students and four members of the focus group (N=12). Due to the non-randomized purposive methods of participant recruitment, the results have limited generalizability to other Indigenous students at other universities and communities (Braun & Clarke, 2013). The
results are applicable within the context of this sample as the experiences are unique to the participants in the study.

Another limitation impacting the results of the study was the briefness of some interviews. One interview was only about fifteen minutes long, potentially limiting the depth and richness of the qualitative data collected. Some interviews were shorter because the participants were not responsive to probes asked by the interviewer and did not expand on their initial responses when asked further questions. Further, the sample of students in the study may reflect difference from other Indigenous students at the University of Guelph. Students who participated in this study are likely more interested, and thus likely already have knowledge about food and food resources on campus, which may differ from the larger population of Indigenous students. Additionally, the study was unable to include students who may not wish to self-identify as Indigenous.

6.3 Study Contributions and Recommendations

Despite the limited generalizability of the findings, it is appropriate to examine some of the important patterns and themes that arose from this exploratory investigation and to suggest recommendations based on these findings. Several students presented the idea that they believe ARC could increase awareness and do more events for Indigenous students to socialize and network in general. Some students in this study found out about ARC well into the upper years of being at the University of Guelph, and this may have been useful to them as new students. Students provided suggestions that ARC could do more events such as an annual Pow Wow, cooking classes and
workshops with Elders. Students expressed interest in the ASA offering more variety in the scheduling of Soup and Bannock lunches to fit with their class, volunteer and work schedules. Participants in the study did not talk about the need for more Indigenous specific resources, but placed most emphasis on social forms of support rather these forms of perhaps more individualized responses.

Another recommendation is to increase awareness and conduct more research and program evaluation on the CSA Food Bank. Kelly, talked about some of the issues she came across, stating “people don’t want to come see [the food bank] because they’re embarrassed, they’re ashamed. They think it’s okay for them to be hungry because they’re students. Because that’s a lot of the rhetoric around post-secondary education. Oh it’s just you’re a poor student.”

By increasing awareness of the campus food bank and student food insecurity, it may be possible to break down the stigma around food security for Indigenous students. Kelly explained that the issue of food insecurity is larger than what she sees on campus. At the time of the focus group, the CSA food bank had 267 registered visitors needing emergency food assistance but she explained, “… it’s about 1 in 50 access the services. But that probably is just a fraction of who could be using the services.”

Community representatives from the focus group had limited knowledge on students, including Indigenous students that access their resources in the larger community of Guelph. Students did not provide much detail about off campus food sources and support of the larger community outside of their campus and home.
connections. There is limited knowledge by students of wider community supports and interaction between students and the community. This may suggest that there is a gap in the service provision of resources for students in the larger community. It is recommended that community resources are advertised more widely on campus. This can be done through more university and community collaborations relating to food emergency providers; by planning and organizing more events together to get students out into the community of Guelph and beyond the confines of campus.

It is recommended that additional research is conducted in this area to add to the dearth of literature on the topic of food systems and Indigenous university students. Further qualitative research such as interviews and focus groups with a more diverse sample of students and service providers will provide more data on unique experiences of Indigenous students. When conducting research with other universities and communities, it would be beneficial to ask the population of interest what type of research would work best for them and then design a collaborative project that is beneficial to the research team, the participants and the larger community. Further, it may be beneficial to utilize multiple methods to assess the prevalence of Indigenous student food insecurity to determine the breadth of the potential issue. As well, it is important to study other educational institutions and locations, as each city and institution is unique in their demographic of students and their resources, and thus can provide results relevant to the specific needs of students.

In conclusion, the current study adds to the literature in several ways. This research is important because it was the first study to examine the food systems of
Indigenous university students using qualitative methods. As well, the results suggest that Indigenous students are very focused on the food and social environments at the university and have limited awareness and exposure to the services in the larger community. This is also demonstrated by findings from the community members as they had limited exposure or knowledge of students, including Indigenous students. Adding to the literature, these findings suggest that there is a gap in the service provision of resources for students in the larger community and students need increased awareness and support to access campus and community food programs and services.
REFERENCES


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APPENDIX A: RESEARCH ETHICS BOARD APPROVAL

RESEARCH ETHICS BOARDS  
Certification of Ethical Acceptability of Research  
Involving Human Participants

APPROVAL PERIOD:   November 7, 2017
EXPIRY DATE:       November 6, 2018
REB:               G
REB NUMBER:        17-09-033
TYPE OF REVIEW:    Delegated
PRINCIPAL INVESTIGATOR:  Tait Neufeld, Hannah (hannahtn@uoguelph.ca)
DEPARTMENT:        Family Relations & Applied Nutrition
SPONSOR(S):        N/A
TITLE OF PROJECT:  Exploring undergraduate Indigenous students’ experiences with institutional and community food systems in an urban setting

The members of the University of Guelph Research Ethics Board have examined the protocol which describes the participation of the human participants in the above-named research project and considers the procedures, as described by the applicant, to conform to the University's ethical standards and the Tri-Council Policy Statement, 2nd Edition.

The REB requires that researchers:
• Adhere to the protocol as last reviewed and approved by the REB.
• Receive approval from the REB for any modifications before they can be implemented.
• Report any change in the source of funding.
• Report unexpected events or incidental findings to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants, and the continuation of the protocol.
• Are responsible for ascertaining and complying with all applicable legal and regulatory requirements with respect to consent and the protection of privacy of participants in the jurisdiction of the research project.

The Principal Investigator must:
• Ensure that the ethical guidelines and approvals of facilities or institutions involved in the research are obtained and filed with the REB prior to the initiation of any research protocols.
• Submit an Annual Renewal to the REB upon completion of the project. If the research is a multi-year project, a status report must be submitted annually prior to the expiry date. Failure to submit an annual status report will lead to your study being suspended and potentially terminated.

The approval for this protocol terminates on the EXPIRY DATE, or the term of your appointment or employment at the University of Guelph whichever comes first.

Signature:           Date: November 7, 2017

[Signature]

Stephen P. Lewis  
Chair, Research Ethics Board-General

Page 1 of 1
APPENDIX B: RESEARCH ETHICS BOARD AMENDMENT

RESEARCH ETHICS BOARDS
Certification of Ethical Acceptability of Research Involving Human Participants

APPROVAL PERIOD: November 7, 2017
EXPIRY DATE: November 6, 2018
REB: G
REB NUMBER: 17-09-033
TYPE OF REVIEW: Delegated
PRINCIPAL INVESTIGATOR: Tait Neufeld, Hannah (hannahtn@uoguelph.ca)
DEPARTMENT: Family Relations & Applied Nutrition
SPONSOR(S): N/A
TITLE OF PROJECT: Exploring undergraduate Indigenous students’ experiences with institutional and community food systems in an urban setting

CHANGES:

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The members of the University of Guelph Research Ethics Board have examined the protocol which describes the participation of the human participants in the above-named research project and considers the procedures, as described by the applicant, to conform to the University’s ethical standards and the Tri-Council Policy Statement, 2nd Edition.

The REB requires that researchers:
- Adhere to the protocol as last reviewed and approved by the REB.
- Receive approval from the REB for any modifications before they can be implemented.
- Report any change in the source of funding.
- Report unexpected events or incidental findings to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants, and the continuation of the protocol.
- Are responsible for ascertaining and complying with all applicable legal and regulatory requirements with respect to consent and the protection of privacy of participants in the jurisdiction of the research project.

The Principal Investigator must:
- Ensure that the ethical guidelines and approvals of facilities or institutions involved in the research are obtained and filed with the REB prior to the initiation of any research protocols.
- Submit an Annual Renewal to the REB upon completion of the project. If the research is a multi-year project, a status report must be submitted annually prior to the expiry date. Failure to submit an annual status report will lead to your study being suspended and potentially terminated.

The approval for this protocol terminates on the EXPIRY DATE, or the term of your appointment or employment at the University of Guelph whichever comes first.

Signature: Stephen P. Lewis
Date: February 8, 2018
Chair, Research Ethics Board-General
APPENDIX C: INTERVIEW INFORMATION LETTER AND CONSENT

Department of Family Relations and Applied Nutrition
College of Social and Applied Human Sciences

Consent Form: Exploring undergraduate Indigenous students’ experiences with institutional and community food systems in an urban setting

Principle Investigator: Dr. Hannah Tait Neufeld, Department of Family Relations and Applied Nutrition, University of Guelph, 519-824-4120 ext. 53796; E-mail: hannahtn@uoguelph.ca

Student Investigator: Hannah Wilson, Department of Family Relations and Applied Nutrition, University of Guelph; E-mail: hwilso04@uoguelph.ca

You are being invited to take part in a research study. Please take the time to review this letter of information and discuss any questions you might have prior to signing the consent form. The purpose of this letter is to provide you with information about the study so that you can make an informed decision about participating in this research. Please take your time to read the letter carefully and ask questions about anything you are unsure about. You may take your time to decide to participate in this study and may discuss it with your friends and family before making your decision. You should not sign this form unless you fully understand what is written and have all of your questions answered.

What is the purpose of this study?

The purpose of the study is to examine Indigenous university students’ experiences with food access to allow for an exploration of food systems and practices on and off campus. The objectives of the study is to explore undergraduate Indigenous students’ experiences with institutional and community food systems in an urban setting at the university and larger community of Guelph, Ontario. Face-to-face semi-structured interviews will be used to investigate the experiences of Indigenous student food access and provide the opportunity for students to share their own recommendations. Results from this study, will be disseminated to the local university and community of Guelph to support the food systems of Indigenous university students. Approximately 8 students will be asked to participate in the study.
Why am I being asked to participate?

To participate in the study, you must be an undergraduate student currently enrolled at the University of Guelph who self-identifies as Indigenous (First Nation, Aboriginal, Métis, or Inuit).

How long will I take part in this research study?

The interview will take about an hour to complete; more time if you wish to review the interview transcript.

What will happen in this study?

You will spend approximately 1 hour in a one-on-one interview discussing your experiences with food access in relation to being an undergraduate student. These interviews will be audio-recorded with your permission. Additionally, you will be asked if you would like to review your interview transcript.

*Total Time Requirement: Approximately 2 hours*

What are the possible risks and discomforts of taking part in this study?

All research conducted by the University must describe any risks or discomforts associated with participating in a study. The only potentially difficult situations this study may arise is taking up your time to answer questions and reviewing your transcripts, as well as bringing up topics that you many not want to talk about. During the interview, you do not have to answer any question that you do not want to. If you would like to stop the interview, or skip a question as any time, you just need to ask. Direct verbatim quotations may be used in published results.

What are the benefits of participating in this study?

Results from the study will inform local community programs to better meet the needs of Indigenous university students.

What happens if I decide not to take part in this research study?

Participation in the study is completely voluntary. You may refuse to participate in the study at any time. You may also refuse to answer any questions during the study or withdraw from participating at any time, with no consequences. If you choose to withdraw, your data, including audio files, will be removed from analysis and destroyed.

Do I have the right to withdraw from the study?
If you agree to participate in the study, you are free to withdraw at any time. You can also choose to remove your interview transcripts from the study.

**Will I receive anything for being in this research study?**

If you decide to participate in the study, you will receive a $50 hospitality card for participating in the semi-structured interview.

**Will it cost me anything to participate in this study?**

There will be no additional expenses for you to participate in the study.

**If I have questions or problems, whom should I contact?**

The student investigator is Hannah Wilson, a Masters student in the Department of Family Relations and Applied Nutrition, at the University of Guelph. If you have any questions, please feel free to contact Hannah at anytime during the study. Her email is: hwilso04@uoguelph.ca

Additionally, the primary investigator is Dr. Hannah Tait-Neufeld, an Assistant Professor in the Department of Family Relations and Applied Nutrition, at the University of Guelph. If you have any questions, please feel free to contact Dr. Tait-Neufeld at anytime during the study. Her email is: hannahtn@uoguelph.ca and her phone number is: (519) 824-4210 ext. 53796

If you have questions regarding your rights and welfare as a research participant in this study (REB17-09-033), please contact: Director, Research Ethics; University of Guelph; reb@uoguelph.ca; (519) 824-4120 (ext. 56606). You may ask about, for example:

- Your rights as a research participant
- Concerns about the research
- A complaint about the research
- Any pressure you feel to take part or continue in the research study

You do not waive any legal rights by agreeing to take part in this study. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants.

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Participant’s Name (please print): ____________________________________________
Participant’s Signature: ______________________________________________________
Date: ____________________________________________________________________
APPENDIX D: FOCUS GROUP INFORMATION LETTER AND CONSENT

Department of Family Relations and Applied Nutrition
College of Social and Applied Human Sciences

Consent Form: Exploring undergraduate Indigenous students’ experiences with institutional and community food systems in an urban setting

Principle Investigator: Dr. Hannah Tait Neufeld, Department of Family Relations and Applied Nutrition, University of Guelph, 519-824-4120 ext. 53796; E-mail: hannahtn@uoguelph.ca

Student Investigator: Hannah Wilson, Department of Family Relations and Applied Nutrition, University of Guelph; E-mail: hwilso04@uoguelph.ca

You are being invited to take part in a research study. Please take the time to review this letter of information and discuss any questions you might have prior to signing the consent form. The purpose of this letter is to provide you with information about the study so that you can make an informed decision about participating in this research. Please take your time to read the letter carefully and ask questions about anything you are unsure about. You may take your time to decide to participate in this study and discuss it with your friends and family before making your decision. You should not sign this form unless you fully understand what is written and have all of your questions answered.

What is the purpose of this study?

The purpose of the study is to examine Indigenous university students’ experiences with food access to allow for an exploration of food systems as a whole. The objective of the study is to investigate programs in place or in development at the University of Guelph and the community of Guelph that address food insecurity and more specifically the needs of Indigenous university students. Focus groups will be used to investigate the objectives of the study. Results from this study will be disseminated to the local university to support potential programs and resources for Indigenous university students. Participants will be recruited from the University of Guelph and the local community. Two focus groups will be conducted.
Why am I being asked to participate?

To participate in the study, you must be a relevant community program coordinator or local resource that addresses food systems for university students.

How long will it take part in this research study?

It will take approximately 75 minutes in total to conduct the focus group. You will only be asked to provide about 75 minutes of your time for a focus group.

What will happen in this study?

You will spend approximately 75 minutes in a focus group to discuss your experiences with food access in relation to working with Indigenous undergraduate students and relevant programs and resources that address Indigenous university students. The focus groups will be audio recorded.

Total Time Requirement: Approximately 75 minutes

What are the possible risks and discomforts of taking part in this study?

All research conducted by the University must describe any risks or discomforts associated with participating in a study. The focus group process means you are essentially speaking in public. The research team will not release your identity, but due to the nature of focus groups it is not assured your identity will remain confidential. It is important that you not discuss who was present and what was said during the focus group outside the meeting. Other difficult situations this study may arise is taking up your time to answer questions, as well as bringing up topics that you many not want to talk about. During the focus group, you do not have to answer any question that you do not want to. Direct quotations may be used in published results.

What are the benefits of participating in this study?

Results from the study will increase awareness in community resources to the needs of Indigenous students and inform the development of culturally appropriate and relevant resources for Indigenous university students.

What happens if I decide not to take part in this research study?

Participation in the study is completely voluntary. You may refuse to participate in the study at any time. You may also refuse to answer any questions during the study or withdraw from participating in the research activities at any time, with no consequences.

Do I have the right to withdraw from the study?

Because focus groups are a group process, contributions cannot be withdrawn.
Will it cost me anything to participate in this study?

There will be additional no expenses for you to participate in the study.

If I have questions or problems, whom should I contact?

The student investigator is Hannah Wilson, a Masters student in the Department of Family Relations and Applied Nutrition, at the University of Guelph. If you have any questions, please feel free to contact Hannah at anytime during the study. Her email is: hwilso04@uoguelph.ca

Additionally, the primary investigator is Dr. Hannah Tait Neufeld. She is an Assistant Professor in the Department of Family Relations and Applied Nutrition, at the University of Guelph. If you have any questions, please feel free to contact Dr. Tait Neufeld at anytime during the study. Her email is: hannahtn@uoguelph.ca and her phone number: (519) 824-4210 ext. 53796

If you have questions regarding your rights and welfare as a research participant in this study (REB17-09-033), please contact: Director, Research Ethics; University of Guelph; reb@uoguelph.ca; (519) 824-4120 (ext. 56606). You may ask about, for example:

- Your rights as a research participant
- Concerns about the research
- A complaint about the research
- Any pressure you feel to take part or continue in the research study

You do not waive any legal rights by agreeing to take part in this study. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants.

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Participant’s Name (please print): __________________________________________

Participant’s Signature: ________________________________________________

Date: _______________________________
University of Guelph. (n.d.) *Hospitality’s on-campus locations*. Retrieved from https://hospitality.uoguelph.ca/on-campus-dining
APPENDIX F: INTERVIEW RECRUITMENT POSTER

PARTICIPANTS NEEDED

Study on Food Practices Among First Nations, Inuit & Métis Students

H. Wilson
hwilso04@uoguelph.ca
APPENDIX G: FOCUS GROUP RECRUITMENT E-MAIL

My name is Hannah Wilson and I am a MSc Student in the Family Relations and Applied Nutrition Depart, at the University of Guelph. I am looking for representatives from community agencies providing food security programming at the University of Guelph and in the greater community of Guelph.

The exploratory study will be an examination of the food systems among First Nations, Inuit or Métis university students. The results from the study will be used to inform and educate services and programs on campus and in the community of Guelph to the needs of First Nations, Inuit & Métis students.

Participants will participate in a focus group with other professionals about food access and food systems as a student. The time commitment will be approximately one hour and fifteen minutes, and will take place in an agreed-upon space.

Interested in participating or have any additional questions please contact:

Hannah Wilson
Department of Family Relations and Applied Nutrition
University of Guelph
E-mail: hwilso04@uoguelph.ca

Dr. Hannah Tait-Neufeld
Department of Family Relations and Applied Nutrition
University of Guelph
Email: hannahtn@uoguelph.ca

You are also welcome to contact Dr. Tait-Neufeld for further information. This study has been reviewed, and received ethics clearance through a University of Guelph Research Ethics Board. REB # 17-09-033

Thank you for your time,

Hannah Wilson
<table>
<thead>
<tr>
<th>Question</th>
<th>Probes</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Tell me about yourself</td>
<td>-What are you studying?</td>
<td>Introduction to give context and history to the participant</td>
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<td></td>
<td>-What year are in?</td>
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<td></td>
<td>Do you live on-campus?</td>
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<tr>
<td>Tell me about your university experiences</td>
<td>-Is this your first university experience?</td>
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<tr>
<td></td>
<td>-Do you have roommates?</td>
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<tr>
<td></td>
<td>-Living situation</td>
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<tr>
<td>What is your favourite food?</td>
<td></td>
<td>Transitional question/ ice breaker to direct question to food</td>
</tr>
<tr>
<td>Where do you access/purchase food?</td>
<td>-Location? (In Guelph, on campus etc). Or from people, family, friends?</td>
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<tr>
<td>What foods do you buy the most often?</td>
<td>-during school vs on break</td>
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<tr>
<td>What do you eat regularly?</td>
<td>How often do you purchase food on campus?</td>
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<td></td>
<td>How often do you cook for yourself?</td>
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<td>Can you tell me about any differences you have noticed in your eating</td>
<td>Have friends or family noticed any changes?</td>
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<td>patterns since being a student?</td>
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<td>How does your living situation affect your eating habits?</td>
<td>Roommates?</td>
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<td></td>
<td>Living alone?</td>
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<td></td>
<td>Living with family?</td>
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<td>How frequently do you visit your home?</td>
<td>-Where do you consider home?</td>
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<tr>
<td>When you visit your home, do you bring food from home back to school</td>
<td>What kinds of food?</td>
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<td>with you?</td>
<td>How often?</td>
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<td>What foods would you like to eat more regularly?</td>
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<td>How do you think you could increase access to the foods you would</td>
<td>What are some of the difficulties you find trying to eat this way more</td>
<td>Provide opportunity for interview to discuss topics not included in</td>
</tr>
<tr>
<td>Question</td>
<td>Probes</td>
<td>Notes</td>
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<td>Everyone introduce themselves</td>
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| What is your awareness of the population of Indigenous university students in the community? | Community events?  
Aboriginal services/ resource centres? |       |
| Can you talk about any experiences you have had interacting with Indigenous students? | Can you describe any involvement in any events/programs with the Indigenous population? |       |
| Are you aware of any programs that include Indigenous university students? | Current programs/ programs that are upcoming?  
What types of programs would you like to see in place on campus/ in the community?  
Any programs related to food and nutrition?  
What is done well in the community? What can be improved?  
What are some barriers to food service provision? |       |
| What is the best approach to assist students with food access and food choice? | -Overall student population?  
-Specifically Indigenous students? |       |
| Do you have anything you would like to add/ or clarify?                  | Provide opportunity for focus group to discuss topics other relevant information that they feel is relevant |       |
APPENDIX J: TRANSCRIBE CONFIDENTIALITY FORM

UNIVERSITY OF GUELPH

Transcriber Confidentiality Agreement

Graduate Research Study: Exploring undergraduate Indigenous students' experiences with institutional and community food systems in an urban setting

I, [transcriber's name], agree to transcribe data for this graduate research study. In doing so, I agree to keep all audio tapes and documents provided by the student researcher, Hannah Wilson, completely confidential. I further agree to:

1. Not discuss or share any information provided to me with anyone other than Hannah Wilson or the primary investigator, Hannah Tait Newfeld. This includes using headphones when transcribing the interviews.
2. Not make any copies of the information provided to me.
3. Keep confidential the identification of any individual which is inadvertently made known to me through transcription.
4. Store all electronic information on a password-protected computer while it is in my possession.
5. Return all research-related information (e.g., audio tapes, transcripts) back to Hannah Wilson as soon as possible when I have completed transcription.
6. Destroy all research-related information that cannot be returned (e.g., computer files) upon completion of transcription and returning of the transcripts to the student researcher.

[Signature]
Name of transcriber

[Signature]
Signature of transcriber

January 26th, 2018
Date
APPENDIX K: TCPS 2: CORE CERTIFICATE

Certificate of Completion

This document certifies that

Hannah Wilson

has completed the Tri-Council Policy Statement:
Ethical Conduct for Research Involving Humans
Course on Research Ethics (TCPS 2: CORE)

Date of Issue: 26 September, 2016