

Understanding Food Literacy from Perceptions of Young Canadian Adults: A Qualitative Study

by

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ABSTRACT

The purpose of this qualitative, grounded theory study was to explore the concept of food literacy as it relates to overall well-being from the perspective of young Canadian adults who recently transitioned to independent living. Seventeen individual, in-depth interviews were conducted with Canadian university students. Results suggest that while young adults value “healthy” eating, they are at risk for leaving their family homes lacking the necessary food literacy required to make healthy food choices, sustain healthy food relationships and be well within complex food environments. Furthermore, results suggest that significant challenges exist with regard to acquiring and utilizing food literacy, which appear to influence food choices, health and well-being. Findings indicate that young adults could potentially benefit from expanding their views on food to encompass cultural knowledge, environmental stewardship, and family connectedness. This thesis adds value to the existing literature by exploring the components of food literacy and connections to well-being from the perceptions of young Canadian adults.

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CHAPTER 1

Introduction

Overview of the Problem

Procuring food and maintaining good health through diet has been one of humankind's main pursuits, and has always had its challenges. However, despite significant technological advancements in food production and transportation methods and scientific progression in nutrition research, the ability of people to maintain health and well-being through food and nutrition has paradoxically become increasingly difficult. This is in part evidenced by current rates of obesity among Canadians, which have been increasing over the past several decades and are considered a major and growing public health concern. Recent statistics show that 67% of Canadian men and 54% of Canadian women are overweight or obese (Roberts, Shields, de Groh, Aziz, & Gilbert, 2012). As well, close to one third of 5 to 17 year-old Canadians are classified as overweight (19.8%) or obese (11.7%) (Roberts et al., 2012). It is widely accepted that excess weight is a significant risk factor for type 2 diabetes, cardiovascular disease, hypertension, osteoarthritis, some cancers and gallbladder disease (The Conference Board of Canada, 2013). In addition to its health impacts, it is estimated that obesity costs the Canadian economy between \$4.6 to \$7.1 billion dollars on an annual basis (Public Health Agency of Canada, 2011).

Obesity rates have risen alongside increased consumption of processed and ultra-processed, low nutrient and energy dense food commodities and sweetened beverages that are typically mass-produced, heavily marketed and readily available (Moore & Rideout, 2007; Popkin, 2001). This has also contributed to increased away-from-home food intake and eating outside traditional meal structures (Warde, 1999). This shift, coined the "nutrition transition"

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(Popkin, 2001), has been facilitated by changing social roles and norms including more women working outside the home, time scarcity, decreased family meals, and fewer opportunities to learn basic food skills in school and at home (Pronovost, 2007; Slater, 2013; Slater, Sevenhuysen, Edginton, & O'Neil, 2012; Smith & de Zwart, 2010; Smith, 2009; Zayak-Reynolds, 2004). As a result, there is concern that people are becoming increasingly 'de-skilled' regarding fundamental food planning and preparation skills, and nutrition knowledge, in increasingly complex foodscapes (Jaffe & Gertler, 2006; Lang & Caraher, 2001; Scrinis, 2007).

At the same time, despite the poor state of the population's nutritional health and level of food skills there is unprecedented interest by the public in food and nutrition, including: vitamins, minerals and supplements; weight loss regimens; organics and local foods; celebrity doctors promoting weight loss schemes; cookbooks; celebrity chefs; and "food TV" (Adema, 2000). People are more likely to proactively pursue food and beverages that they perceive will support physical health for themselves and family members, and there is increased demand for "functional foods", "nutraceuticals", "natural", organic, and novel food products. These products are frequently branded and have questionable nutrition profiles. However, while Canadians exhibit high interest in the area of nutrition, this has not been translated into actions and behaviours that promote individual and population health and wellness (Canadian Medical Association, 2013).

Many of these trends have coincided with the rise of "nutrition science", a biological science "concerned with the interactions of food and nutrition with physiologic, metabolic and now also genomic systems, and the effects of these interactions with health and disease" (Beauman et al., 2005, p. 783), which has been the dominant response to the poor nutritional health of the population. Here, the primary focus is on the role of nutrients in disease prevention

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or control and traditional, culturally-relevant cuisines are rendered invisible (Nestle, 2013). Although this approach has produced a vast amount of knowledge its inherently reductive focus on nutrients has promised individualistic solutions to complex public health problems, on which it has not delivered (Nestle, 2013, Pollan, 2007; Scrinis, 2008).

Study Rationale

There is considerable evidence to support the notion that many people lack the necessary knowledge, skills, attitudes and values to adapt to and be well in current complex food environments. Although there is no clear way forward, researchers are looking to more fundamental ways of promoting engagement with food to regain health and well-being. These go beyond “health promotion” and “lifestyle education” to encompass the importance of cultural knowledge, environmental stewardship, and family connectedness. The concept of “food literacy” has recently emerged and is being explored as a possible framework and promising approach to “re-skill” people with necessary and relevant food related knowledge, skills, attitudes and values. Although definitions vary, Vidgen & Gallegos (2014) define food literacy as “a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake”, as well as, “the scaffolding that empowers individuals, households, communities or nations to protect diet quality through change and support dietary resilience over time” (p. 55). This definition is more comprehensive in scope and therefore served as an important lens when developing this study and analyzing the research data. Food literacy is increasingly being used in policy and practice without a common understanding of what it is and how it could relate to health and well-being (Association of Local Public Health Agencies, 2009; East Carolina University, 2014; Harvard University). Further, very little research directly links food literacy to the broader concept of

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emerging well-being frameworks and definitions. This gap has implications for youth/young adults in particular.

Young adults' dietary habits are among the poorest of all age groups, with high rates of fast-food and soft drink consumption and low rates of adherence to national recommendations for fruit and vegetable intake (Cook & Friday, 2004; Danyliw, Vatanparast, Nikpartow, & Whiting, 2012; Nelson, Story, Larson, Neumark-Sztainer, & Lytle, 2008; Nielsen & Popkin, 2004; Paeratakul, Ferdinand, Champagne, Ryan, & Bray, 2003; Pelletier & Laska, 2012; Rossiter, Evers, & Pender, 2012).

Additionally, some food habits developed by young adults are often associated with a poorer diet quality including: irregular meal patterns, meal skipping and frequent snacking (Al-Rethaiaa, Fahmy & Al-Shwaiyat, 2010; Kremmyda, Papadaki, Hondros, Kapsokefalou, & Scott, 2008; Šatalic, Colic Baric, & Keser, 2007), and frequent consumption of commercially prepared meals, such as takeaway food, pre-packaged or restaurant meals (Burns, Jackson, Gibbons, & Stoney, 2002; French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001; Nicklas, Myers, Reger, Beech, & Berenson, 1998). Furthermore, there is concern that these potentially negative behaviours developed in earlier life are likely to remain later in life, negatively contributing to the long-term health of individuals (Papadaki, Hondros, A Scott, & Kapsokefalou, 2007).

According to Thorpe and colleagues (2013) "young adulthood presents as an ideal period to explore dietary habits as it is an important period of transition from adolescence to adulthood where independent influences on food behaviours and greater responsibility for food choices become established" (p. 1). Despite this knowledge, there is little research that focuses on young adult populations (Thorpe, Kestin, Riddell, Keast, & McNaughton, 2013).

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To this author's knowledge, no Canadian based food literacy studies have been performed from the perspective of university students transitioning to independent living. This study will add to the existing body of literature by exploring the food experiences of young adults and the concept of food literacy from their perceptions, thereby strengthening theoretical foundations and developing practical recommendations moving forward.

Study Purpose

The purpose of this qualitative study was to explore the concept of food literacy as it relates to overall well-being from the perspective of young Canadian adults who recently transitioned to independent living. The aim was to develop a theoretical framework rooted in what the participants experienced and what they perceived (knowledge, skills, values and attitudes) as valuable to their health and well-being.

Research Objectives

This research addressed the following objectives in order to enhance the knowledge of food literacy from the perspective of young Canadian adults who have newly transitioned into independent living.

1. To determine the knowledge and skills young adults perceive they require with respect to food.
2. To understand how food literacy links to their understanding of what it means to live well.
3. To identify perceived enablers and barriers in relation to acquiring food related knowledge and skills.
4. To describe the food experiences of young adults as they transition to independent living.

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Organization of Thesis

This thesis is structured as a paper-based manuscript and includes the following chapters which follow the introductory chapter.

Chapter 2 presents a critical review of the literature pertaining to food literacy and well-being.

Part I of the literature review presents the rationale for a ‘new approach to food’ which includes: the “nutrition transition”, the “culinary transition” and changing social norms around food, eating and cooking. Part II of the literature review presents constructs of food literacy and well-being in the literature.

Chapter 3 includes a comprehensive explanation of the qualitative methods used for this research project. This chapter provides in-depth detail of the global methods used for the overall project, and abbreviated methods sections are included in each manuscript.

Chapters 4 and 5 are written as complete research papers. They include introduction, methods, results, and discussion sections. The methods are abbreviated versions of the overall methods section. The two papers are formatted such that they may be submitted as publishable manuscripts.

Chapter 4 titled, “*What is Food Literacy? Perceptions of Young Canadian Adults*”, includes the qualitative results pertaining to knowledge and skills young adults perceived they required with respect to food as they transitioned to independent living. This paper addresses Research Objectives #1 and #2 of the research project.

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Chapter 5 is titled “*Challenges to Acquiring & Utilizing Food Literacy: Perceptions of Young Canadian Adults*”. This paper summarizes the qualitative research pertaining to perceived enablers and barriers in relation to acquiring and utilizing food literacy. Young adults in this study experienced significant challenges with respect to healthy eating due to: food learning and experiences; competing priorities and interests; and complex food relationships. This paper primarily addresses Research Objective #3.

Chapters 4 and 5 were written in publishable format, as two related but independent research papers. Together, these two research studies provide an in-depth examination and rich understanding of the food experiences of young Canadian adults newly transitioning to independent living (Research Objective #4). The first paper advances the understanding of what food literacy is from the perceptions of young adults, contributing to the development of food literacy as a construct for use in research and policy. The second paper explored the challenges young adults experienced in relation to acquiring and utilizing food literacy. It is critical to understand the barriers to food literacy identified in paper two in order to move forward with program and policy development and ultimately improve health and well-being.

The final chapter in this thesis provides a general summary of the overall research findings and ties Chapters 4 and 5 together with a theoretical framework rooted in what the participants experienced and what they perceived as valuable to their health and well-being. This chapter also includes the limitations of this study, presents suggestions for future research, and a brief conclusion.

CHAPTER 2

Literature Review

Part I of this chapter presents the rationale that a new approach to food is necessary due to the poor nutritional health status of Canadians, including youth, and changes in food-related habits, environments and norms. In light of these concerns the concept of ‘food literacy’ has recently emerged in the literature as a potential new approach to food and a means to foster healthy food relationships and better health. Food literacy generally includes a range of knowledge, skills and attitudes required to foster health within a supportive context. However, food literacy is increasingly being used in policy and practice without a common understanding of its components and how it could relate to health but also the broader concept of well-being (Association of Local Public Health Agencies, 2009; East Carolina University, 2014; Harvard University). Therefore, Part II of this chapter will review current constructs of food literacy presented in the literature and identify ways in which food literacy could rectify issues raised with respect to population health trends, and current food related concerns and ideologies described in Part I. Part II of this chapter will also review emerging well-being frameworks in relation food literacy.

Part I: Rationale for a New Approach to Food

The “Nutrition Transition”

Our food and food systems have changed dramatically over the last 70-80 years, most intensely in recent decades. More specifically, there has been a shift from fundamental, raw food ingredients to processed and ultra-processed, low nutrient and energy dense food commodities and sweetened beverages (Moore & Rideout, 2007; Moubarac et al., 2013; Ustjanauskas, Harris,

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& Schwartz, 2013). This shift has been coined the “nutrition transition” and these changes have contributed substantially to the ways we eat and how food is viewed and recognized today (Popkin, Adair, & Ng, 2012).

The surplus of convenience and ultra-processed foods in contemporary food markets are typically mass-produced, “branded” and heavily marketed (Moore & Rideout, 2007; Moubarac et al., 2012; Ustjanauskas, Harris, & Schwartz, 2013). They are also readily available at supermarkets, restaurants, vending machines and other retail venues (Glanz, Basil, Maibach, Goldberg, & Snyder, 1998) contributing to increased away-from-home food intake and eating outside traditional meal structures (Warde, 1999). Although the nutrition transition can be viewed as a sign of progress and efficiency, including potential for reduced time spent in the kitchen, it also warrants greater scrutiny for its role in the health of people and the natural environment (Lang & Caraher, 2001). Countries undergoing the nutrition transition have uniformly experienced concurrent growth in obesity and diet-related chronic disease (Popkin, 2001; Popkin, 2002; Popkin & Gordon-Larsen, 2004; Popkin, Adair, Ng, 2012).

Population Health Status

Obesity and other diet related health issues are a major and growing public health concern globally, and Canada is no exception. A 2013 UNICEF report ranked Canada 27 out of 29 wealthy countries on a healthy weight index (UNICEF Office of Research, 2013). Recent statistics show that 67% of Canadian men and 54% of Canadian women are overweight or obese (Roberts, Shields, de Groh, Aziz & Gilbert, 2012). As well, close to one third of 5 to 17 year-old Canadians are classified as overweight (19.8%) or obese (11.7%) (Roberts et al., 2012). It is widely accepted that excess weight is a significant risk factor for type 2 diabetes, cardiovascular

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disease, hypertension, osteoarthritis, some cancers and gallbladder disease (The Conference Board of Canada, 2012).

Diabetes is considered a worldwide epidemic and currently affects more than 9 million Canadians who have either diabetes or pre-diabetes (Canadian Diabetes Association, 2012). In the past, type 2 diabetes was only seen in adults; however the disease is increasingly appearing in adolescents and children (Winnipeg Regional Health Authority, 2013). Overweight and obesity is the major risk factor for type 2 diabetes, which accounts for 90% of all cases of diabetes (Canadian Diabetes Association, 2012). Also of concern with regard to overweight and obesity are related functional limitations, disabilities and psycho-social problems, including: depression, social isolation and discrimination, low self-esteem, body-image dissatisfaction, and reduced quality of life (Hramiak, Leiter, Paul, & Ur, 2007; Schwimmer, Burwinkle, & Varni, 2003; Wang & Veugelers, 2008). When examining the rates of obesity and diet-related disease crucial parallels can be drawn between what people are currently eating and how these dietary habits have changed in recent decades.

Changing Dietary Habits

A growing body of evidence suggests that observed obesity and overweight trends are primarily due to increased energy consumption (Bleich, Cutler, Murray, & Adams, 2007; Slater et al., 2009; Swinburn, Jolley, Kremer, Salbe, & Ravussin, 2006) and modestly due to increased sedentary lifestyles. Slater and colleagues (2009) found that in Canada “between 1976 and 2003, per capita daily estimated energy availability increased by 18% (1744 kJ) and increased energy availability was the major driver of the increased energy gap” (p. 2217). Additionally, results from their study indicated that the food commodities driving the widening energy gap are major

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ingredients in many energy-dense convenience foods which are being consumed with increasing frequency in Canada. Further, Moubarac and colleagues (2013) identified that eighty percent of the Canadian population has diets that consist of more than fifty percent of ultra-processed products in terms of energy.

Results from the 2004 Canadian Community Health Survey (CCHS) also indicated several areas of concern within the average Canadian's diet: 70% of children aged 4 to 8 and 50% of adults do not consume a minimum of five daily servings of fruits and vegetables (current recommendations are a minimum of seven servings); more than 37% of children aged 4 to 9 are not consuming enough milk products; people are consuming too much fat; and "other foods" (nutritionally-poor, calorie dense snacks, candies and condiments) account for almost one quarter of total calories consumed by Canadians (Garriguet, 2007). Furthermore, 14-18 year old boys obtain on average one quarter of their calories from sugar, half of which is "added" primarily from soft drinks (Langlois & Garriguet, 2011). Also, a study from British Columbia found that 91% of children and youth consume too much sodium (Mulder, Zibrik, & Innis, 2011). These dietary findings are in part due to high consumption of convenience and fast food which accounts for up to one third of meals consumed by youth (French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001).

Young adults' dietary habits are among the poorest of all age groups, with high rates of fast-food and soft drink consumption and low rates of adherence to national recommendations for fruit and vegetable intake (Cook & Friday, 2005; Nelson et al., 2008; Nielson & Popkin, 2001; Paeratakul & Ferdinand, 2003; Pelletier & Laksa, 2012). Additionally, common food habits developed by young adults are often associated with a poorer diet quality including: irregular meal patterns, meal skipping, frequent snacking (Al-Rethaiaa et al., 2010; Kremmyda,

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Papadaki, Hondros, Kapsokefalou, & Scott, 2008; Satalic, Colic, & Keser, 2007), and frequent consumption of commercially prepared meals (takeaway food, pre-packaged or restaurant meals) (Burns, Jackson, Gibbons, & Stoney, 2002; French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001; Nicklas, Myers, Reger, Beech, & Berenson, 1998). These findings demonstrate that young adults in particular face significant challenges with regard to healthy eating and may benefit from increased food literacy. However, despite knowledge of poor dietary habits amongst this population, there appears to be little research that focuses on young adult populations (Thorpe, Kestin, Riddell, Keast, & McNaughton, 2013).

Population obesity and diet-related chronic disease rates and changes in dietary patterns, have been accompanied by a decline in time spent planning for and preparing food, as well as the skills required to perform these activities (Lang & Caraher, 2001).

The “Culinary Transition”

Lang and Caraher (2001) refer to the current state of food skills within our society as a “culinary transition”, which occurs when “cultures experience fundamental shifts in the pattern and kind of skills required to get food onto tables and down throats” (p. 2). Reasons they provide for this transition include: globalization; changes in production and processing methods; the growth of availability of processed/pre-prepared food; and the increase in takeout meals. The prepared and shelf-stable nature of ultra-processed convenience and fast foods frequently releases people from multi-step food preparation (in some cases requiring none at all). However, while heralded as time-saving commodities, the low-input and convenience aspect of these foods may be disfavoring the population on both nutritional and social fronts.

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“De-Skilling”

Some argue that due to the “culinary transition” and increased availability and use of processed convenience foods, people are being “de-skilled” regarding fundamental food planning and preparation skills (Caraher & Lang, 1999; Caraher, 2012; Jabs, Devine, Bisogni, Farrell, Jastran, & Wethington, 2007; Jaffe & Gertler, 2006; Lang & Caraher, 2001). There is concern that many people no longer possess the necessary skills to prepare food from raw ingredients as they are no longer required to, thus furthering reliance on pre-prepared items. Jaffe and Gertler (2006) state that “consumers do not have – and are systematically deprived of – the information, knowledge and analytical frameworks needed to make informed decisions that reflect their own ‘fully costed’ interests” (p. 143). Additionally, Meah and Watson (2011) claim that although cooking has been simplified and “de-skilled” through availability of convenience foods and innovations, it has also concurrently “become more complex in terms of the volume of information available about how to cook safely, healthily, tastily, on a budget, for a family, for guests, for oneself, *and* in terms of the range of knowledge and skills necessary to negotiate contemporary technologies of food provisioning, from use-by dates to microwave de-frost programs” (p. 5).

According to Rützler (2003), the ability to prepare traditional meals without using recipes is significantly declining in younger cohorts, where about 85-90% of forty-year-old women feel able to do so while in the case of those under forty, only 40-50% feel able. This reflects a shift from more tacit understandings of food and taste in favor of methods that require more precision and are more reliant on instruction and guidance, while employing less judgment from the individual, or based on experience (Meah & Watson, 2011). Results from a study conducted by Short (2003) indicated that “tacit skills (skills of judgement, timing, planning and so on), for

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example, are the ‘cooking skills’ that appear to increase the cook’s confidence, decrease the effort they associate with ‘cooking’ and in doing so can encourage them to ‘cook’ more frequently and use more ‘raw’ foods” (p. 177).

Bowen & colleagues (2014) caution against the emphasis on “cooking” to reform the food system, which they state “ignores the time pressures, financial constraints, and feeding challenges that shape the family meal” experienced primarily by mothers. In contrast, Jaffe and Gertler (2006) and Kornelson (2009) argue that intentional steps are needed to “re-skill” people as they become increasingly distanced (in time and space and experience) from the sites and processes of production. Selection of foods and particular products (i.e., informed shopping), food storage and preservation, and cooking and related activities of food preparation are all key gaps in food knowledge and skills (Jaffe & Gertler, 2006). There is concern that these gaps also have unfavorable social impacts on food consumption and reduce the aesthetic and cultural enjoyment of food.

As evidenced above, there are several areas of concern with the dietary habits of young adults, particularly frequent consumption of commercially prepared meals or fast food, and therefore may face challenges around “de-skilling”.

Food Skills and Health

There are limited studies that have directly examined food preparation skills and health; however, existing studies indicate that increased diet quality is associated with greater frequency of cooking and using more complex preparation steps (Larson, Perry, Story, & Neumark-Sztainer, 2006; Moubarac et al., 2013; Thorpe, Kestin, Riddell, Keast, & McNaughton, 2013). Laska and colleagues (2011) found that early in-home food experiences seem to have a positive

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impact on food skills, as study subjects who enjoyed cooking in their twenties were significantly more likely to have been engaged in food preparation activities as adolescents and emerging adults (ages 19 - 23 years). They were also more likely to cook meals with vegetables if they had engaged in food preparation as an adolescent (though regular vegetable consumption was low for the entire group: 24% of males and 41% of females incorporated vegetables more than twice per week) (Laska, Larson, Neumark-Sztainer, & Story, 2011).

Conversely, eating out more frequently is associated with obesity, and higher body fatness and eating more fast-food meals is linked to consuming more calories, fat, saturated fat, and sugary soft drinks and less fruits, vegetables, and milk (Larson, Perry, Story, & Neumark-Sztainer, 2006; Laska, Larson, Neumark-Sztainer, & Story, 2011). Reliance on highly processed foods can have serious health consequences. Studies show the rise in obesity and related chronic diseases can in part be attributed to the combined effect of insufficient vegetable and fruit consumption, increased occurrence of meals away from home, poor food preparation skills, and increased portion sizes (Rafioura, Sargent, Anderson, & Evans, 2002; Lino, Gerrior, Basiotis, & Anand, 1998).

It is important to analyze the food experiences of young adults in the context of changing dietary patterns, health status, and food environments in order to further explore food literacy. While more studies are required, there is compelling evidence that fundamental food and nutrition knowledge and skills (food literacy) can have a protective influence on health and well-being.

Changing Social Norms: Food, Eating and Cooking

Convenience Orientated

The shifts in our food environments described above are compounded by changes in societal values and norms, including the desire for speed and convenience. Carl Honoré (2004) states that speed has been the obsession of the modern world for the past century and that it governs every aspect of social organization and subsequently also regulates our meals. “Time scarcity” due to lifestyle obligations are a primary driver for the desire for convenience, which often regulates and determines food choices (Agriculture and Agri-Food Canada, 2010; Slater, Sevenhuysen, Edginton, & O’Neil, 2012). This is evidenced by lack of time being among the most commonly reported barriers to healthy eating amongst adults overall, including young adults (Greaney et al., 2009; Kearney & McElhone, 1999; Nelson, Kocos, Lytle, & Perry, 2009).

One survey revealed that 53% of Canadians spend their lunch break in isolation reading, surfing the internet, or not stopping for lunch at all and if they do break for lunch, they do so for only 16-30 minutes (Conagra Foods, 2009). Food corporations respond to and reinforce convenience orientated food habits by offering more and more and ultra-processed food products that require little to no time to prepare and eat (Mourabac et al., 2012). Although there are movements beginning to challenge this ideology of speed/convenience (“Slow Food Movement”, localism, organics, etc.), it still primarily governs how we engage with and eat food today.

Family Time and Meals

Shared meals were once the center of family life, and a primary vehicle for translating important cultural food knowledge. Some evidence suggests that there has been a decline in family meal frequency due to: increased extra-curricular activities of children and adolescents, extensive hours at work for parents, increased numbers of single-parent families, and more

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women working outside the home (Cinotto, 2006; Patrick & Nicklas, 2005; Story, Neumark-Sztainer, & French, 2002). Additionally, while more women are working outside the home they are still primarily responsible for food related activities (Flagg, Sen, Kilgore, & Locher, 2014; Zayak-Reynolds, 2004). In one Canadian study, 87% of food planning or preparation was done by the mother or stepmother (Woodruff & Kirby, 2013). This is coupled with an overall devaluing of “domestic foodwork”, affecting both the home and school environment (Slater, 2013; Smith & de Zwart, 2010).

Furthermore, there is concern that everyday work and chaotic family schedules provide less time for provision and preparation of meals, and limits the ability of children to visit grocery stores with parents or help with food preparation (Lichtenstein & Ludwig, 2010). These are missed opportunities for teaching and mentoring children about essential food skills, as well as key time that could be viewed as “family time”. Also, parents say they want to spend less time “cooking” and more “family time”, therefore the two are not seen as complementary (Agriculture and Agri-Food Canada, 2010; Pronovost, 2007).

Research on family meal frequency is ambiguous with respect to nutritional quality of shared meals, though some research points to a protective influence. It has been reported that frequency of family meals was positively associated with increased consumption of fruits and vegetables, whole grains, calcium-rich food, protein, and micronutrients from food and less consumption of fried food and sugar-sweetened beverages (Neumark-Sztainer et al., 2003; Woodruff and Kirby, 2013). They also found that participants with greater self-efficacy and more positive family meal attitudes and behaviours were more likely to have higher family dinner frequency. Morin and colleagues (2013) also highlight the importance of perceived self-

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efficacy related to meal management and food coping strategies among working parents. Furthermore, frequency of recalled childhood family meals appears to influence the frequency of current commensality in the eating habits of students (De Backer, 2013; Murcott, 1997).

In relation to this study's Research Objectives, it was important to develop an understanding of participants' food experiences growing up with their families as evidence suggests that it may have important implications for their current food habits and related knowledge, skills, attitudes and values.

School-Based Food and Nutrition Education

Schools have been highlighted as a potential vehicle of change in light of current health trends, concerns around “de-skilling” and societal changes; however issues within the school system exist. There have been increased initiatives to change the school environment, such as introducing “school nutrition guidelines”, which focus on improving the nutritional quality of foods available to students through vending machines, cafeterias and fundraising (Healthy Child Manitoba, 2006). Although this attempt at changing school food environments is important, it does not address the deficit of key food skills amongst this population that would equip students to make healthy choices in the outside world and home (Lichtenstein & Ludwig, 2010).

Home economics-food and nutrition (HEFN) education in the school system is traditionally where students (primarily girls) gain knowledge and applied experience in cooking and related activities. There has been a decline in home economics education in North America, and HEFN programming faces significant challenges (Slater, 2013). Food and nutrition education is often undervalued in the schools while “core” subjects, like math and science, take precedence (Lichtenstein & Ludwig, 2010; Slater, 2013). As well, there are significant

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challenges presented by the wider food and nutrition environments, which undermine attempts at HEFN education. These include the widespread availability of highly processed foods and high frequency of eating away from home (Slater, 2013). Students are also entering HEFN classes with less food knowledge and fewer skills than in the past, presenting challenges for teachers. In one Canadian province, less than half of students take HEFN, though enrollment has increased over the last ten years and more males are enrolled (Slater, 2013). Additionally, there is a projected teacher shortage, as training programs close, eliciting concern over HEFN teacher competence (Smith & De Zwart, 2010).

Lichtenstein and Ludwig (2010) argue that while food and nutrition education must be re-introduced into schools, traditional, gender specific home economics education is no longer relevant in today's food environment and needs to be changed to meet current demands. Fordyce-Voorham (2011) has identified "essential skills required for a skill-based healthful eating program" (p. 117), which includes: knowledge (experiential learning at supermarkets, awareness around environmental sustainability, understanding various cooking methods and kitchen equipment, exposure to enjoyable taste experiences, meal planning, and nutrition knowledge in the context of enjoying a wide variety of food); information (food literacy relating to food labels and proper use of kitchen equipment); skills (planning, shopping, and preparation); resources (energy, motivation, time, cooking equipment and transport).

The concerns raised above with regard to food and nutrition mentoring and education in the home and school environments may have affected the young adults in this research project and potentially acted as key barriers to acquiring food literacy.

Food and Nutrition Trends

Paradoxically, despite the somewhat dismal state of the population’s nutritional health and food skills there is unprecedented interest by the public in food and nutrition, including vitamins, minerals and supplements; weight loss regimens; organics and local foods; celebrity doctors promoting weight loss schemes; cookbooks; celebrity chefs; and “food TV” (Adema, 2000). A “food as medicine” philosophy has also started to gain popularity and credibility (Adema, 2000). People are likely to proactively pursue food and beverages that they perceive will support physical health for themselves and family members, and there is increased demand for “functional foods”, “nutraceuticals”, “natural”, organic, and novel food products. Current cookery culture is also paradoxical in that we now have multiple channels dedicated to food preparation, yet people spend less time cooking than ever before (O’Sullivan, Hocking, & Wright-St. Clair, 2008). However, while Canadians exhibit high interest in the area of nutrition, this has not been translated into actions and behaviours that promote individual and population health and wellness (Canadian Medical Association, 2013).

Many of these trends have coincided with the rise of “nutrition science”, a biological science “concerned with the interactions of food and nutrition with physiologic, metabolic and now also genomic systems, and the effects of these interactions with health and disease” (Beauman et al., 2005, p. 783), which has been the dominant response to the poor nutritional health of the population. Here, the primary focus is on the role of nutrients in disease prevention or control and traditional, culturally-relevant cuisines are rendered invisible (Nestle, 2013). This way of thinking about and engaging with food has been coined “nutritionism” (Scrinis, 2008). Although this approach has produced a vast amount of knowledge its inherently reductive focus

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on nutrients has promised individualistic solutions to complex public health problems, on which it has not delivered (Nestle, 2013, Pollan, 2007; Scrinis, 2008).

As evidenced above young adults may lack necessary food related knowledge, skills, attitudes and values, to live well within current food and social environments, in part due to “nutrition” and “culinary” transitions as well as societal changes. In order to explore the concept of food literacy from the perceptions of young adults it is imperative to take these changes into account when analyzing and interpreting the research data and exploring recommendations for moving forward.

The Future of Food

The 2005 Agriculture and Agri-Food Canada report “Canadian Food Trends to 2020: A Long Range Consumer Outlook”, foreshadowed trends which, beneficial for food producers and marketers, signal concerns for the future of the health and well-being of future generations (Agriculture and Agri-Food Canada, 2007). The report predicted that: “Consumers will become even more disconnected from food preparation. Shopping and eating habits will be sporadic; meal planning cycles will be shorter, snacking will replace courses, as well as whole meals, and food will become even more portable” (1, p. i). This report was developed nine years ago, and we can see that our current food trends are on par with these predictions.

Although the exact balance of what constitutes a sustainable diet from a biological or an environmental perspective is still emerging, there is common agreement that if current food trends continue, it will be at the expense of both human population health and the natural environment (Nestle, 2013). Some have articulated a goal of a healthy balance between consumer demand for health/wellness, convenience, pleasure and values to support future health

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(Zayak-Reynolds, 2004). Belasco (2006) argues that we have a “complex food culture that aspires to convenience and authenticity, efficiency and artisanship, mass distribution and class distinction”. This myriad of contradictions will have to be considered when exploring food literacy from the perceptions of young adults and, when investigating policies and interventions to improve food literacy.

The literature reviewed here indicates that there is substantial concern about the nutritional health of young Canadians. Further, this can be attributed to poor dietary intakes stemming in part from being disconnected from food nutritionally, socially and physically.

Part II: Food Literacy: A New Approach to Food

Conceptualizing Food Literacy: A Review

As described in Part I of this chapter, there is considerable evidence to support the notion that a new approach to food is needed and that many people, including youth, lack the necessary knowledge, skills, attitudes and values to facilitate an overall healthy relationship with food. The concept of “food literacy” has emerged as a possible framework and promising approach to define what people need to know and be able to do with respect to food for individuals, families and communities to be healthy and live well within our current food world and preserve it for future generations. However, food literacy is increasingly being used in policy and practice as a means of addressing poor population health, without a common understanding of what it is (Association of Local Public Health Agencies, 2009; East Carolina University, 2014; Harvard University). This section reviews current food literacy constructs and links them to notions of well-being that include, but go beyond physical health. Table 1 below illustrates current definitions of food literacy found in the literature.

Table 1. Food literacy definitions & programs

<i>Author/Program</i>	<i>Definition</i>
Vidgen & Gallegos (2014)	“A collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake”, as well as, “the scaffolding that empowers individuals, households, communities or nations to protect diet quality through change and support dietary resilience over time” (p. 54).
European Food Literacy Project (Schnögl et al., 2006)	Food Literacy is defined as “the ability to organize one’s everyday nutrition in a self-determined, responsible and enjoyable way” (p. 10). The objective is to develop food literacy as a personal core competence.
Slater (2013)	Functional food literacy: basic communication of credible, evidence-based food and nutrition information, involving assessing, understanding and evaluating information; Interactive food literacy: development of personal skills regarding food and nutrition issues, involving decision making, goal setting and practices to enhance nutritional health and well-being; Critical food literacy: respecting different cultural, family and religious beliefs in respect to food and nutrition (including nutritional health), understanding the wider context of food production and nutritional health, and advocating for personal, family and community changes enhance nutritional health.
Desjardins (2013)	A set of skills and attributes that help people sustain the daily preparation of healthy, tasty, affordable meals for themselves and their families. Food literacy builds resilience, because it includes food skills (techniques, knowledge and planning ability), the confidence to improvise and problem solve, and the ability to access and share information. Food literacy is made possible through external support with healthy food access and living conditions, broad learning opportunities, and positive socio-cultural environments.
Association of Local Public Health Agencies (2009)	The ability to cook healthy meals from scratch, grow food, read food labels correctly, as well as knowing where one’s food comes from.
East Carolina University: Food Literacy Program (2014)	Focus is on food and nutritional well-being. Topics include: weight management, dietary supplements and information about diseases often associated with obesity.
Harvard University Dining Service: The Food Literacy Project	Aim is to cultivate an understanding of food from the ground up. The focus is on four areas of food and society: agriculture, nutrition, food preparation and community. The goal is to promote enduring knowledge, enabling consumers to make informed food choices.

The first four definitions above are more comprehensive in scope, and will be used to explore food literacy as a means to address and ameliorate the issues raised in Part I of this chapter (Rationale for a New Approach to Food).

Vidgen and Gallegos (2011; 2012) developed a conceptual framework that consisted of four descriptors/capabilities of a food literate person (Table 2). They purport that food literacy serves to improve nutritional outcomes due to its ability to make food intake more certain (predictable), more pleasurable, and provides more informed choice. The extent that this will improve diet quality is mediated by social determinants of health (i.e., social exclusion, poverty, social support, geography and transport).

Table 2. Components of individual food literacy (Vidgen & Gallegos, 2011; 2012)

<p>Planning and Management</p>	<ul style="list-style-type: none"> • Prioritizes money and time for food • Can access food through some source on a regular basis irrespective of changes in circumstances or environment by planning (formally and informally) their food intake • Makes feasible food decisions which balance food needs (eg nutrition, taste, hunger) with available resources (eg time, money, skills, equipment)
<p>Selection</p>	<ul style="list-style-type: none"> • Knows that food can be accessed through multiple sources and the advantages and disadvantages of these sources • Knows how to determine what is in a food product, where it came from, how to store it and use it • Can judge the quality of food
<p>Eating</p>	<ul style="list-style-type: none"> • Understands food has an impact on personal well-being • Demonstrates self-awareness of the need to personally balance food intake. This includes knowing foods to include for good health, foods to restrict for good health and appropriate portion size and frequency • Can join in and eat in a social way
<p>Preparation</p>	<ul style="list-style-type: none"> • Can make a good tasting meal from whatever food is available. This includes being able to prepare commonly available foods, efficiently use common pieces of kitchen equipment and having a sufficient repertoire of skills to adapt recipes (written or unwritten) to experiment with food and ingredients • Knows the basic principles of safe food hygiene and handling

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Each dimension of food literacy in this framework encompasses a wide spectrum of food related activities which can potentially rectify knowledge deficits and de-skilling issues. For example: adequate management and prioritization of money and time around food is essential for moving away from “convenience” orientated food decisions, which can also facilitate less reliance on processed, nutrient-poor and energy-dense food options. This could improve overall diet quality and improve health outcomes. Their definition of food literacy, while still primarily focused on individual physical health outcomes, does not focus on nutrient acquisition/avoidance and extends to understanding where food comes from and the impact food has on personal well-being (i.e., social connectedness, food security, and ethical and sustainable food choice).

Schnögl and colleagues (2006) perceive food literacy as contributing toward the sustainable, democratic development of citizenship. Table 3 elaborates on their definition: “the ability to organize one’s everyday nutrition in a self-determined, responsible and enjoyable way” (p. 10).

Table 3. European food literacy definition (Schnögl et al., 2006)

<p>A person organizes their everyday nutrition in a self-determined way:</p>	<ul style="list-style-type: none"> • Is aware of his/her nutritional behaviour and understands it in connection with his/her biography, • Knows about the social, cultural and historic influences on eating habits and understands their respective effects, • Shows sufficient knowledge of nutrition and food in order to be able to critically question statements given in the media and made by experts, • Knows his/her personal needs in nutrition and • Is able to organize nutrition in a way that has a good effect on him/her.
<p>A person organizes their everyday nutrition in a responsible way:</p>	<ul style="list-style-type: none"> • Understands the effect of nutrition on his/her health condition, the environment and society as a whole and understands the respective connections between them, • Knows about food production, processing, transport and disposal, • Is informed about the composition of food and can judge its quality, • Is able to select appropriate products within the framework of his/her personal budget, • Makes decisions as a consumer that are quality-oriented and effectively develop his/her style of living.
<p>A person organizes their everyday nutrition in an enjoyable way:</p>	<ul style="list-style-type: none"> • Can feel for himself/herself what is good and what provides personal pleasure, • Realizes that conscious perception using all the senses and a varied experience of taste is a condition of enjoyment, • Appreciates cooking and eating as an aspect enriching everyday life, • Regards dealing with food as an elementary part of human culture and • Is open to other culinary cultures.

Their concept revolves around the notion that cultural, social, emotional, personal and practical factors must be integral to nutrition communication and education. Facilitating food literacy education based on these principles would address several concerns around changing values and norms around food, such as loss of food cultures and pervasive isolated eating practices. As well, by educating people to “critically question statements given by the media and made by experts” (p. 12), this will allow consumers more control over their food choices and

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minimize misunderstanding around nutrition. A key and distinguishing feature of their conceptualization of food literacy is their emphasis on the enjoyment or pleasures around cooking, eating and experiencing food as something that enriches everyday life. Schnögl and colleagues (2006) point out that food literacy is much more than recommending nutritional guidelines; rather they seek to empower individuals and communities to make decisions in complex food environments, and provide essential basic competencies around food and nutrition.

Slater (2013) argues that in light of current obesity and diet-related chronic disease rates, complex foodscapes, citizen “de-skilling” and changing social norms, re-evaluation of educational practices in public school systems is required. This is underscored by concern that theoretical and applied food and nutrition related learning opportunities are under threat, particularly through the decline in home economics courses. In response, Slater has proposed a food literacy framework that identifies three aspects of food literacy:

Table 4. Aspects of food literacy (Slater, 2013)

Functional food literacy	Communication of credible, evidence-based food and nutrition information, involving assessing, understanding and evaluating information
Interactive food literacy	Development of personal skills regarding food and nutrition issues, involving decision making, goal setting and practices to enhance nutritional health and well-being
Critical food literacy	Respecting different cultural, family and spiritual beliefs in respect to food and nutrition (including nutritional health), understanding the wider context of food production and nutritional health, and advocating for personal, family and community changes enhance nutritional health.

This framework needs to be matured conceptually to examine and propose methods and tools for building food literacy capacity and translating food literacy to individuals.

Desjardins (2013) has conducted a study that examined food literacy from the perspective of disadvantaged young adults. In comparison to the other definitions presented in this chapter, this study explicitly discusses food literacy as food preparation skills, which are defined as: “food skills that are necessary to provide regular, healthy meals for one’s household and/or one’s self comprise a combination of techniques (ability to use cooking implements and appliances, handle food ingredients); knowledge (nutrition for good health, interpreting food labels, following/understanding instructions, ingredients and recipes; food safety; awareness of food origins and characteristics, and growing foods if possible); and planning ability (organizing meals, food budgeting, shopping and storage)” (Desjardins, 2013, p. 70). Table 5 below describes the measurable outcomes of food literacy determined from results of this study.

Table 5. Measurable components of food literacy (Desjardins, 2013)

Personal skills and attributes related to food preparation	External determinants	Potential outcomes (as expressed by young people)
<ul style="list-style-type: none"> • Food skills (techniques, knowledge, planning) • Self-efficacy and confidence • Ability to improvise and problem-solve • Ability to find and use social & other supports 	<ul style="list-style-type: none"> • Socio-cultural environment • Learning environment • Food access, cooking facilities • Living conditions (income, employment, housing) 	<ul style="list-style-type: none"> • Preparation of healthier meals and greater likelihood of consuming a healthier diet • Feeling better, physically & mentally • Greater connectedness to others with respect to food and eating • Improved response to change • Feelings of satisfaction in preparing food for themselves and others • Attraction to culinary training and job opportunities (for some) • Improved household food security

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Both Desjardins (2013) and Vidgen & Gallegos (2012) examined food literacy from the perspective of disadvantaged young adults, a population that will benefit from enhanced food literacy. This author suggests that food literacy is also critical for the health and well-being of all members of society, regardless of their age and socio-economic position.

Benn (2014) recently conducted a comprehensive review of food literacy in the literature and developed the following table illustrating broad understandings of food literacy.

Table 6. Broad understandings of food literacy (Benn, 2014).

Aspects	Broad understandings
Aims	Empowerment, self-decision, co-decision and critical understanding concerning food, meals and wellbeing
Content	Food from production to eating, Aspects of nutrition, food, meals, diets in a critical view concerning both the individual, the group and society Exemplary, student oriented themes
Actions/skills	Knowing, doing, experiencing, exploring, sensing Cultural skills in a broad sense
Setting	From micro to macro – both individual and social oriented
Learning	As an individual, active, complex process but facilitated by the teacher and the environment, foods, texts and artifacts – learning through

Several authors reviewed recognize “food literacy as an opportunity for self-efficacy, empowerment, and acquiring a sense of coherence and competencies regarding sensory, practical, theoretical and ethical fields” (Benn, 2014, p. 31). After reviewing the literature, Benn (2014) argues that food education and food literacy must be taken seriously in schools, society and homes.

While existing food literacy definitions vary in their content and scope, they do have common elements and provide an important foundation for the development of this research project and served as a key lens for analyzing the data of this research project. The definitions of

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food literacy developed by Vidgen and Gallegos (2014), Schnogl and colleagues (2006), and Slater (2013) were important guiding frameworks used in this study.

Food Literacy & Well-being

It is being argued in this research project that being food literate is a vital aspect to living well, beyond individual physical health. Just as food literacy is emerging as a promising way to re-establish our connection and relationship to food, new well-being frameworks are being developed to re-evaluate how to measure the quality of one's life. These emerging well-being frameworks are worth examining for their potential to include dimensions of food literacy.

Although the definitions of well-being vary, the Canadian Index of Well-Being (CIW) (Canadian Index of Well-Being, 2012) currently defines it as: "The presence of the highest possible quality of life in its full breadth of expression focused on but not necessarily exclusive to: good living standards, robust health, a sustainable environment, vital communities, an educated populace, balanced time use, high levels of democratic participation, and access to and participation in leisure and culture". The CIW has created a comprehensive composite index of indicators to measure social progress and quality of life as opposed to the current system which uses Gross Domestic Product (GDP) as the measure of prosperity. These include living standards, community vitality, education, health, time use, environment, democratic engagement, and leisure and culture.

Each component of the CIW is interconnected with food literacy. For example, "time use", which measures the use of time, how people experience time, what controls its use, and how it affects well-being directly effects what people choose to eat. This is just one example of why a

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new approach to food based on food literacy should be seen within the larger context of new well-being frameworks.

Another organization, the New Economics Foundation (New Economics Foundation, 2013), aims to improve quality of life by promoting innovative solutions that challenge mainstream thinking on economic, environmental, and social issues. They seek to answer the question: what would politics look like if promoting people's well-being was one of government's main aims? NEF has created a "well-being manifesto" that urges the government to redefine policy to shape the culture and society in which we live to support well-being through eight key areas (Aked, Marks, Cordon, & Thompson, 2009):

1. Measure what matters: produce a set of national well-being accounts;
2. Create a well-being economy: employment, meaningful work and environmental taxation;
3. Reclaim our time: improve work-life balance;
4. Create an education system that promotes flourishing;
5. Refocus the health system to promote complete health;
6. Invest in the very early years and parenting;
7. Discourage materialism and promote authentic advertising;
8. Strengthen civil society, social well-being and active citizenship.

Food literacy resonates with many aspects of this well-being framework. For example, creating an education system that promotes flourishing and a health system that promotes complete health would necessitate the development of food literate citizens. Food literacy education could strengthen the other pieces of this framework, for example: invest in the very

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early years and parenting; improve work-life balance; and refocus the health system to promote complete health. Additionally, not only does food literacy compliment the social environment reflected in this well-being definition, it extends to the natural environment. To be “well” society needs to exist within a healthy social and natural environment.

While food literacy is not explicitly embedded within the frameworks discussed, they provide an important heuristic device for thinking about the role of food literacy in well-being, moving beyond physical health outcomes. And while empirical work is required to examine the linkages between food literacy and well-being more closely, it is argued that food literacy can be seen as an integral “thread” running through conceptualizations of well-being, profoundly influencing the quality of individual and community life.

Emerging well-being definitions and frameworks provided an important lens when analyzing the research project data and as well as to understand how food literacy linked to the study participants’ understanding of what it means to live well.

Research Gaps

As previously mentioned, food literacy has recently emerged in the literature and is increasingly being used in policy and practice without a common understanding of what it is and how it could relate to health and well-being (Association of Local Public Health Agencies, 2009; East Carolina University, 2014; Harvard University). There appears to be little research, with regard to food literacy, that focuses on young adult populations despite knowledge of poor dietary habits amongst this population (Thorpe, Kestin, Riddell, Keast, & McNaughton, 2013). To this author’s knowledge, no Canadian based food literacy studies have been performed with university students transitioning to independent living. In particular, research gaps exist with

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respect to their perspectives on knowledge, skills, attitudes and contexts required to facilitate a positive relationship with food to promote well-being, as well as barriers to acquiring these food literacy attributes. Lastly, there is limited research that explicitly links food literacy to well-being.

CHAPTER 3

Methods

Food literacy is an emerging concept in the literature and lacks strong theoretical foundations. This qualitative study used grounded theory methods, rooted in the constructivist worldview, to develop an understanding of food literacy, and the contextual factors that influence the development of food literacy, from the perspective and experiences of young Canadian adults who have recently transitioned to independent living. To this author's knowledge, no Canadian based food literacy studies have been performed from the perspective of university students transitioning to independent living.

Study Design

Qualitative Approach

Food literacy is a complex, emerging concept in health and social science literature which seeks to re-establish sensual, cultural, and ecological connections to food and thereby improve population health and well-being. The dominant response to the poor nutritional health of the population has been the rise of "nutrition science", a biological science "concerned with the interactions of food and nutrition with physiologic, metabolic and now also genomic systems, and the effects of these interactions with health and disease" (Beauman et al., 2005, p 783). While this approach has produced a vast amount of knowledge through predominately quantitative research, its inherently reductive focus on nutrients has promised individualistic solutions to complex public health problems, on which it has not delivered. In order to address the research objectives, qualitative methods were deemed most suitable for a number of reasons.

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Qualitative research is inductive and focused on the quality or nature of human experiences and seeks to explain phenomena (actions, decisions, beliefs, values) from the perspective of individuals (Draper, 2004). It is naturalistic and interpretive as the researcher tries to understand the meanings people connect to phenomena (in this case, food literacy and well-being) within their social worlds or the context they occur (Ritchie & Lewis, 2013). This approach enabled the collection of rich, in-depth information on and understanding of participants' food experiences; what they perceived as valuable with regard to food related knowledge, skills, and attitudes; challenges to acquiring and utilizing these; and underlying connections and complexities between food literacy and well-being, which served to develop a theoretical framework based on the interpretation of the study findings.

Draper (2004) identifies the following reasons for the value of qualitative methods in health and nutrition research today, which are: (1) to understand patterns of behaviour and how these patterns may influence and interact with health and nutritional status and health-seeking behaviours, including patterns of food consumption; (2) on this basis, to identify priorities and needs relevant to particular social and cultural contexts and/or groups of individuals; (3) to design and implement interventions that are appropriate to these contexts and/or groups of individuals. These reasons are aligned with the broad goals of this study, which were to understand the food experiences of young adults as they transition into independent living. These findings will have significant implications in developing useful policies, school curriculum and community based or public health programs that can successfully address food related issues.

Grounded Theory: Constructivism

This study adopted grounded theory methodology because it is suitable for the investigation of complex multifaceted phenomena, such as food literacy and its relationship to well-being. This methodology seeks to construct theory about issues of importance in peoples' lives (Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 2009). It does this through a process of data collection that is often described as inductive in nature in that the researcher has no preconceived ideas to prove or disprove (Morse, 2012). Rather, issues of significance to participants emerge from the stories they tell about an area of interest that they have in common with the researcher (Mills, Bonner, & Francis, 2006). This approach fits with the aim of this study which was to develop a food literacy and well-being theoretical framework rooted in what the participants experience and perceive as valuable to their health and well-being.

Several variations of grounded theory have evolved over time, reflective of differing ontological and epistemological underpinnings (Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 2009; MacDonald & Schreiber, 2001; Wuest & Merritt-Gray, 2001). The constructivist grounded theory approach was chosen for this study due the researchers' assumptions about the nature of reality and the researchers' role (Charmaz, 2000). Constructivism is a research paradigm that denies the existence of an objective reality, "asserting instead that realities are social constructions of the mind, and that there exists as many constructions as there are individuals (although clearly many constructions will be shared)" (Guba & Lincoln, 1989, p. 43). As well, constructivism emphasizes the importance of the subjective interrelationship between the researcher and participant, and the co-construction of meaning (Hayes & Oppenheim, 1997; Pidgeon & Henwood, 1997). The author of this study concurs with these assumptions and believes that we are part of the world that we study and the data that we collect, thus we

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construct our realities and meanings as a result of past and present involvements and interactions with people, perspectives and research practices. This viewpoint was recognized as critical for the understanding of food literacy as it is deeply interconnected with personal, cultural and structural/social contexts, which will undoubtedly shape unique and individual food experiences for each participant.

Charmaz (2000) advocates the use of the following strategies when employing a constructivist (interpretive) approach in grounded theory: (a) data collection and analysis occur at the same time, (b) data coding is a two-step process, (c) comparative methods, (d) memo writing aimed at the construction of conceptual analyses, (e) sampling to refine the researcher's emerging theoretical ideas, and (f) integration of the theoretical framework. These strategies were followed in this study and are elaborated on in the following section.

The following sections outline the details of the proposed study, in regard to population of interest, participant recruitment, data collection and analysis procedures, rigour and ethics.

Population of Interest

The population of interest for this study was students from two universities in a mid-sized Canadian city. Seventeen individual in-depth interviews were conducted; eight participants were female and nine were males. This sector of the population, young adults newly transitioned into independent living, was viewed as rich sources of data at this key transitional stage of their lives. According to Thorpe and colleagues (2013) "young adulthood presents as an ideal period to explore dietary habits as it is an important period of transition from adolescence to adulthood where independent influences on food behaviours and greater responsibility for food choices become established" (p. 1). It was important for the researcher to understand how young adults

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cope with the management of their food after leaving their family of origin homes, which provides valuable insight into the degree of food literacy acquired prior to independent living, as well as potential challenges experienced. Also of significance, this groups' food knowledge and abilities have the potential to influence future generations if they enter into parenthood and mentor their own children with regard to food and nutrition.

To be eligible to participate in the study, participants had to meet the following criteria:

Table 7. Inclusion & Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none">• Between 18-25 years old• Responsible for feeding themselves• Have transitioned to independent living within the last two years• Are Canadian citizens	<ul style="list-style-type: none">• From the department of Human Nutritional Sciences in Human Ecology• Live at home with parents or caregivers• Married• Have dependent children

Participant Recruitment

Participants were purposively selected based on inclusion and exclusion criteria identified above (refer to Table 1). Purposive sampling selects members of a sample with a 'purpose' to represent a location or type in relation to key criterion (Ritchie & Lewis, 2013). There are two principle aims of purposive sampling: (1) to ensure that all of the key constituencies of relevance to the subject matter are covered and (2) to ensure that within each key criterion some diversity is included so that the impact of the characteristics of concern can be explored. In other words, participants are purposefully selected in order to help the researcher best understand the research problem and objectives (Ritchie & Lewis, 2013). Participants were primarily recruited via posters advertising the study in various buildings at the university (see Appendix A for a sample of the recruitment poster).

Additional participants were recruited using theoretical sampling, a form of purposive sampling, which occurred after the initial sample was selected and the initial data collection and

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analysis began (Charmaz, 2006). Theoretical sampling is used to develop categories or theory and seeks people, events, or information to illuminate and define the boundaries and relevance of categories. In this study, theoretical sampling sought out participants in order to fill identified gaps in the existing data collected. For example, participants with differing levels of food literacy and interest in food and nutrition were recruited. This process continued until no new themes emerged and theoretical saturation was reached. Theoretical saturation refers to the point at which gathering more data about a theoretical category reveals no new properties nor yields any further theoretical insights about the emerging grounded theory (Charmaz, 2006).

Data Collection

Participants were interviewed individually in person in a private room. A semi-structured interview guide was used that was pilot tested on two individuals from the population of interest. Prior to the interviews, participants completed a brief questionnaire. The purpose of the questionnaire was to collect demographic information and to ensure all inclusion/exclusion criteria were adhered to. Interviews conducted took approximately 30-45 minutes.

Sample questions are shown in Table 2.

Table 8. Sample Semi-Structured Interview Questions

Sample Semi-Structured Interview Questions
Can you describe what you ate yesterday?
Where did you learn about food, such as certain skills or eating habits?
Do you eat differently now that you have the main responsibility for your own food?
What feelings do you associate with food?

All interviews were conducted by the primary author and digitally recorded. Interviews were transcribed verbatim and replayed whilst re-reading the transcribed interviews for accuracy.

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Immediately after each interview was conducted, the primary researcher took detailed field notes (electronically) regarding general thoughts, assumptions and behaviour throughout the interview.

Data Analysis

Memo-Writing

Data analysis began during the transcription of interviews in accordance with grounded theory methods in which data collection and analysis occur simultaneously. Analysis during this stage was primarily through memo writing which was also utilized until the completion of the analysis process. Memo writing is a critical aspect of grounded theory methods and is a key transitional step between data collection and the drafting of the theory (Charmaz, 2006). As well, memo writing prompts the researcher to analyse data and codes early in the research process (Strauss & Corbin, 2008; Charmaz, 2006). Memos were kept as notes and organized/stored in NVivo9 QSR International Software (2009). The researcher documented thoughts and ideas around each participant, emergent codes and categories and the interaction of the categories as the study progressed. Additionally, memos expanded on processes, assumptions and actions taken throughout the research process. The date and time of each memo were also documented.

Coding & Diagramming

Coding is the “pivotal link between collecting data and developing an emergent theory to explain these data. Through coding you *define* what is happening in the data and begin to grapple with what it means” (Charmaz, 2006, p. 6). This study used the constant comparative method to analyze the data which involves (a) comparing different people based on views, situations, actions, accounts and experiences, (b) comparing data from the same individuals with themselves at different points in time, (c) comparing incident with incident, (d) comparing data with

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category, and (e) comparing a category with other categories (Charmaz, 2006; Glaser, 1978).

Through the use of constant comparative analysis, data earned its way into the study when the process revealed repeated patterns in the data (Chiovitti & Piran, 2003).

To begin the coding process, the researcher conducted open coding, which is the process of assigning labels, or codes, to data for the purpose of identifying categories (Charmaz, 2006). NVivo9 QSR International Software (2009) was used during this coding process which began during line by line reading of the interview transcripts. These initial codes/categories guided subsequent interviews and analysis. First level codes were ranked to reveal those coded most frequently, and those coded for the majority of participants. These were used to construct more theoretical categories of focus. Focused coding which is directive, selective and conceptual, was used to synthesize and understand the main themes (Charmaz, 2006). Throughout this process, new cases were compared with existing cases, as well as comparison across categories and themes.

Throughout the coding process, concept maps or diagrams were developed for each participant. Individual diagrams facilitated the constant comparison method by clearly being able to compare participant by participant based on similarities and differences. For example, it enabled the researcher to compare participants based on defining and influential characteristics, such as “interest in cooking”. This allowed the researcher to see what other factors were associated with this characteristic and how it shaped food choices and relationships. Furthermore, these initial concept maps served as the backbone for the development of the final food literacy and well-being theoretical framework.

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Rigour

Rigour refers to the correct use of research methods and is an important aspect of the quality of research processes and outcomes (Ezzy, 2002). As Charmaz's approach to grounded theory was utilised in this study, the criteria posed by Charmaz to meet "interpretive sufficiency" was used (Charmaz, 2005; p. 528). The vital elements of a grounded theory study are the use of memo writing, constant comparative analysis, and continuous cycle of theoretical sampling, data collection and analysis, identification of a core category and development of a theory (Strauss & Corbin, 2008). Each of these key components was followed and is discussed in detail above.

The researcher maintained constant self-reflection through memo-writing, which reduced researcher biases. The researcher of this study acknowledged themselves and their values as an unavoidable part of the outcome. This is very important as qualitative research is an interpretive investigation, which requires researchers to make interpretations of what they see, hear, and understand (Creswell, 2009). For this study, the researcher is a Canadian female, who completed her undergraduate Human Nutritional Sciences degree at the University of Manitoba. Therefore she shares a level of common experience as a student with the participants and is generally familiar with the population under study as well as the study setting. Her educational background and personal interest in the topic will also play a role in the research process.

The researcher took several steps to ensure validity. Firstly, the researcher included "thick" description through writing extensive field notes of observations and compiling detailed narratives from transcribed interviews (Geertz, 1973). This is critical for gathering rich data which is necessary for building a significant analysis and to eventually generate a strong grounded theory (Charmaz, 2006). Additionally, an external auditor with qualitative expertise

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reviewed a sample of the coding, the analytical procedures and results. In the end stages of the study, the researcher returned to the literature and compared the study findings with the literature, which contextualized, grounded, and provided validation of the findings. Lastly, to further augment the validity of the study's findings the participants' own words have been used in the results sections (Backman & Kyngäs, 1999).

Study Ethics & Logistics

All participants signed a consent form prior to the commencement of their interview (see Appendix B for a copy of consent form).

Participants' confidentiality was maintained through the use of numeric codes assigned to each participant, which were randomly generated. At no point were participants' names or identifying information disclosed to other persons or on any documentation. All data collected, including consent forms, questionnaires, interview transcripts and audio recordings were stored in a locked cabinet in a locked room (418 Human Ecology Building) that was accessible to the researcher only. The audio tapes and all paper documents will be destroyed within five years or one year after initial publication, whichever comes first. All electronic data and documents were encrypted and password protected and accessible by the researcher only.

Each participant received a \$20.00 gift certificate for the University of Manitoba bookstore as a token of appreciation for their time and participation. As well, the study results will be emailed to participants that requested a copy on their consent form. Ethics permission was obtained from the Joint Human Research Ethics Board at the University of Manitoba to protect the rights of human participants. Appendix C contains documents pertaining to ethics approval, including approval certificates for amendments.

CHAPTER 4

What is Food Literacy? Perceptions of Young Canadian Adults

INTRODUCTION

Our food and food systems have changed dramatically over the last century, most intensely in recent decades. More specifically, there has been a shift from fundamental, whole food ingredients to processed and ultra-processed, low nutrient and energy dense food commodities and sweetened beverages that are typically mass-produced, heavily marketed and readily available (Moore & Rideout, 2007; Moubarac et al., 2013; Ustjanauskas, Harris, & Schwartz, 2013). This has contributed to increased away-from-home food intake and eating outside traditional meal structures (Warde, 1999). Obesity rates and nutrition-related diseases have risen alongside increased availability and consumption of these foods (Moore & Rideout, 2007; Popkin, 2001; Slater, 2009). This shift has been facilitated by changing social roles and norms including more women working outside the home, time scarcity, decreased family meals, and fewer opportunities to learn basic food skills in school and at home (Pronovost, 2007; Slater, 2013; Slater et al., 2012; Smith & de Zwart, 2010; Smith, 2009; Zayak-Reynolds, 2004).

As a result, there is concern that people are becoming increasingly “de-skilled” regarding fundamental food planning and preparation skills, and nutrition knowledge, in increasingly complex food environments (Jaffe & Gertler, 2006; Lang & Caraher, 2001; Scrinis, 2007). Food literacy is an emerging concept being examined for its potential role in equipping people with the necessary and relevant food related knowledge, skills, attitudes & values to adapt to and be well in current foodscapes. Although definitions vary, Vidgen & Gallegos (2014) define food literacy as “a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake”, as well as, “the

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scaffolding that empowers individuals, households, communities or nations to protect diet quality through change and support dietary resilience over time” (p. 54). In order to develop educational programs to effectively address these multi-faceted issues highlighted above, it is essential to understand how young adults navigate their food environments.

Using a qualitative, grounded theory methodology, this study explored the food experiences of young Canadian adults who recently transitioned to independent living and what they perceive as valuable with regard to food and health. The concept of food literacy was examined in relation to well-being. It is argued that being food literate is a vital aspect to living well, beyond individual physical health. Just as food literacy is emerging as a promising way to think about our connection and relationship to food, new well-being frameworks are being developed to re-evaluate how to measure the quality of one’s life. Although the definitions of well-being vary, the Canadian Index of Well-Being (CIW) (2012) currently defines it as: “The presence of the highest possible quality of life in its full breadth of expression focused on but not necessarily exclusive to: good living standards, robust health, a sustainable environment, vital communities, an educated populace, balanced time use, high levels of democratic participation, and access to and participation in leisure and culture”.

The results of this study will be used to advance our understanding of food literacy from perceptions of young Canadian adults and thereby identify how food and nutrition education can be better developed in order to effectively equip young people to manage their food and promote health and well-being.

METHODS

Study Design

This qualitative study used grounded theory methods to explore the concept of food literacy as it relates to overall well-being from the perspective and experiences of Canadian university students who recently transitioned to independent living. Qualitative research is inductive and focused on the quality or nature of human experiences and seeks to explain phenomena (actions, decisions, beliefs, values) from the perspective of individuals (Draper, 2004). Grounded theory seeks to construct theory about issues of importance in peoples' lives (Glaser, 1978; Glaser & Strauss, 2009; Strauss & Corbin, 2008) and is suitable for the investigation of complex multifaceted phenomena, such as food literacy and its relationship to well-being.

Participants

The population of interest for this study was students from two universities in a mid-sized Canadian city. Participants had to meet the following inclusion criteria: (a) between 18-25 years old; (b) responsible for feeding themselves; (c) have transitioned to independent living within the last two years and (d) be Canadian citizens. Exclusion criteria included: (a) from the department of Human Nutritional Sciences in Human Ecology; (b) live at home with parents or caregivers; (c) be married or (d) have dependent children.

Purposive and theoretical sampling techniques were used to recruit eligible participants (Ritchie & Lewis, 2013; Chamaz, 2006). Participants were primarily recruited via posters advertising the study. Each participant received a \$20.00 gift certificate for the University of Manitoba bookstore as a token of appreciation for their time and participation.

Data Collection

Participants were interviewed individually in person in a private room. A semi-structured interview guide was used that was pilot tested on two individuals from the population of interest. Prior to the interviews, participants completed a brief questionnaire. The purpose of the questionnaire was to collect demographic information and to ensure all inclusion/exclusion criteria were adhered to. Interviews conducted took approximately 30-45 minutes. Sample interview questions are as follows: (a) Can you describe what you ate yesterday? (b) What do you consider “healthy eating” to be? (c) When buying food, what’s important for you to know?

All interviews were conducted by the primary author and digitally recorded. Interviews were transcribed verbatim and replayed whilst re-reading the transcribed interviews for accuracy. Immediately after each interview was conducted, the primary researcher took detailed field notes (electronically) regarding general thoughts, assumptions and behaviour throughout the interview.

Data Analysis

Data analysis began during the transcription of interviews in accordance with grounded theory methods in which data collection and analysis occur simultaneously. This study used the constant comparative method to analyze the data which involves (a) comparing different people based on views, situations, actions, accounts and experiences, (b) comparing data from the same individuals with themselves at different points in time, (c) comparing incident with incident, (d) comparing data with category, and (e) comparing a category with other categories (Charmaz, 1983, 1985; Glaser, 1978, 1992).

To begin the coding process, the researcher conducted open coding, which is the process of assigning labels, or codes, to data for the purpose of identifying categories (Charmaz, 2006).

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NVivo9 QSR International Software (2009) was used during this coding process which began during line by line reading of the interview transcripts. These initial codes/categories guided subsequent interviews and analysis. First level codes were ranked to reveal those coded most frequently, and those coded for the majority of participants. These were used to construct more theoretical categories of focus. Focused coding which is directive, selective and conceptual, was used to synthesize and understand the main themes (Charmaz, 2006). Throughout this process, new cases were compared with existing cases, as well as comparison across categories and themes.

Throughout the coding process, concept maps or diagrams were developed for each participant. Individual diagrams facilitated the constant comparison method by clearly being able to compare participant by participant based on similarities and differences. For example, it enabled the researcher to compare participants based on defining and influential characteristics, such as “interest in cooking”. This allowed the researcher to see what other factors were associated with this characteristic and how it shaped food choices and relationships. Furthermore, these initial concept maps served as the backbone for the development of the final food literacy and well-being theoretical framework.

Ethics

This research study was approved by the Joint-Faculty Research Board of Ethical Review at the University of Manitoba. Informed voluntary consent was obtained from all participants prior to their involvement in the study.

RESULTS

The following major themes emerged which reflect participants' perceptions of various aspects of food literacy and demonstrate the complex food environments inhabited by young adults as they transition to independent living.

- I. Food Preparation: Knowledge, Skills, Attitudes & Values
- II. Nutrition: Knowledge, Skills, Attitudes & Values
- III. Natural Environment: Knowledge, Skills, Attitudes & Values
- IV. Food & Nutrition Confusion
- V. Food & Nutrition Contradictions

Food Preparation: Knowledge, Skills, Attitudes & Values

Participation in Food Preparation

Participation in food preparation was evenly distributed between participants who prepared the majority of their meals at home from whole food ingredients requiring multiple steps; participants who used a combination of convenience/fast foods and multi-step, home prepared meals; and participants who predominately chose convenience/fast foods.

About one third of participants stated that they prepared the majority of their meals from raw ingredients at home. One participant explained that she utilized convenience foods such as frozen fruits and vegetables, however avoided other types of processed foods/meals, while preparing most of her meals from whole food ingredients.

“Yeah, like the frozen vegetables and stuff and frozen fruit I think that’s a really good idea because it’s still fresh, and it’s really easy to have on hand; you don’t have to worry about it spoiling in your fridge if it’s fresh. But in terms of other pre-packaged foods, like on occasion but it’s not something I generally go for.”

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However, a few of the participants who were currently preparing most of their meals from fresh ingredients indicated that when they initially moved out of their parents' homes they relied more frequently on convenience and processed foods/meals, due to a lack of interest in cooking or food skills.

"... when I first moved to the city because I had this new found freedom and I was, I didn't want to cook, I didn't want to waste my time cooking...at first I just bought a lot of prepared stuff but then I started to go back to making all my meals myself."

A combination of self-prepared meals from whole ingredients and convenience and/or fast foods was reported by a third of participants. One young woman explained how she prepared meals from whole food ingredients as well as utilized convenience foods items, thereby satisfying her desire for "healthy" and "convenience".

"I'm just like I'll take a little bit of both, convenience and healthy."

Additionally, about one third of participants predominately chose convenience and/or fast foods. One participant described eating most of his meals at fast food chains because these restaurants were close to his home. This participant explained that he made his food selections based mainly on convenience, and was not concerned about or interested in health.

"I cook maybe like once a week. Just like spaghetti and a canned sauce. Sometimes I throw in ground beef and make lasagna with like lots of cheese on it. A lot of time when I'm not cooking I will go to McDonald's or Burger King. They're really close to my house."

The majority of participants described low involvement in food preparation and high reliance on convenience and fast foods among their friends. Participants attributed this behaviour either to a lack of interest in cooking and health or a lack of food preparation skills, which was sometimes related to the habits of their friends' parents.

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“A lot of my friends do know how to cook and just don’t. Like I know a lot of them work in restaurants, like I’ve seen them cook like really good stuff and then at home they eat like ramen noodles or just don’t eat. I think a lot of it is just laziness, just convenience factor.”

“The friends I have that are like that, they grew up with parents that didn’t care about that I guess or they didn’t know themselves. When I would go there for supper I remember hating it because it was always like pre-cooked meals and prepared in a package. So I think that’s how they were raised, they didn’t really know any better.”

Confidence & Competence

Confidence and competencies around food preparation skills varied from high to low across participants; however all participants felt they had adequate food preparation skills that would allow them to “feed themselves”. This perception was independent of individual participation in food preparation at the time of their interview. One participant, who currently participates in minimal food preparation, stated that her food skills are sufficient to adequately feed herself.

“I think they’re quite sufficient to feed myself in a good way I think. I could definitely improve like learn to make new things. But it gets me by.”

Some participants self-reported having confidence and competence with regard to food preparation skills. Most commonly these participants learned these skills from their parents, mainly mothers, prior to transitioning to independent living. Additionally, these participants engaged more frequently in food preparation and related activities. A young woman with a high self-reported confidence and competence in food preparation explained that she enjoyed the challenge of preparing everything from scratch.

“I like the challenge of doing everything from scratch but I think overall if you can do things yourself it’s usually better for you. It’s good practice, good to know.”

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One participant explicitly stated that she lacked confidence and competence regarding food preparation.

“I’d just like to know how to prepare meals and be more confident in the kitchen because when I do work in the kitchen I’m very down on myself because I think I’m going to just screw it up.”

Several participants perceived themselves to have cooking skills, sometimes of a high level, but chose not to prepare food on a regular basis, despite having participated in the past. Typically this practice was due to a lack of interest in cooking or health and/or perceived time-constraints. For example, a young man who used to work in the kitchen of a restaurant explained that he knows how to cook but chooses not to due to a lack of interest. In response to whether or not he cooks at home, he stated:

“No, God no. I used to work in restaurants as my first job until I was like 20. I’m 24 now. I worked exclusively in bars and restaurants and I would cook, I was a kitchen manager and stuff. And then the last thing I wanted to do when I got home was cook food and spend time in a kitchen and that just kind of transferred over now. I just don’t like, I’ll do potlucks and stuff when I’m cooking for my friends but if I’m home I’m just going to try and make something really quick so I can spend more time working on anything else.”

A few students in this study indicated that they *could* cook but did not describe ever participating in food preparation. This behaviour was different from participants who self-identified that they had cooking experience/skills but chose not to, as in the young man described above, who illustrated cooking experience at a previous job as a kitchen manager. In contrast, a participant who was “pretty confident” regarding cooking, indicated that she could make a homemade soup; however, she was not sure if it would taste good, illustrating that she had not done this before but feels she *could*.

“I am pretty confident that I think I can do it myself. I don’t know how tasty it would be but I am pretty sure I could just boil the vegetables and stuff..Well it seems like a lot, like if I wanted to cook, well yeah, I would know how to put a

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frozen pizza in the oven but I wouldn't know how to make it from scratch. Not really, I can't make anything gourmet, that would be nice. I just seem to not be able to have the time right now from school and stuff."

Participants' perceptions of "basic" food skills varied quite significantly, in part due to a wide range of food preparation abilities among participants. For example, some students described preparation of noodles, potatoes, asparagus or sandwiches as cooking accomplishments:

"Oh yeah I definitely could. Like I've cooked chicken breasts, I've actually cooked asparagus too, it's not that hard but I don't know I thought that was kind of interesting to do."

Some participants described preparing meals that required more steps and skills, such as making bread or pizza from scratch. One participant, who self-identified a high confidence and competence in cooking explained that prior to moving out it would have been helpful to have learned more about baking bread, which requires a higher skill level compared to cooking noodles or asparagus.

"...baking bread because I seem to have a few mishaps with that and it's something that I tried a few times and haven't really felt like I got confident in it and now I've totally, not given up on it, but I haven't taken the time to practice it."

Interest in Cooking

Five participants identified that they had an interest in cooking. Participants interested in cooking were more likely to utilize their food preparation skills as well as prioritize time to do so. Some participants explicitly attributed the prioritization of food and health in their lives to their enjoyment of cooking. One participant explained that he liked cooking, which is why he tries to eat healthy.

"I think I like cooking so that's why I try."

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Another participant explained that he developed an interest in cooking while traveling.

Previously, this participant ate mostly convenience meals, which has changed to mostly home prepared foods from raw ingredients since he learned how to cook.

“Honestly, in the last year since I’ve just learned how to cook, just cause I’ve gone travelling I’ve had to learn all myself and everything now is basically just ingredients. I just buy raw meat and then vegetables and then make my food...When I first moved out I was eating that type of stuff, like just microwaved food. Like that type like Michelina’s, like microwaved pasta, and like Costco they sell those things that you put in the oven they’re like chicken pot pies or something like that. I would make stuff like that. But now I’m pretty away from that stuff and I just make my own food now.”

This same participant went on to say:

“So I actually have a high interest in it now, in cooking.”

Participants who enjoyed cooking were more likely to engage with food in social ways or eat with others. This habit took shape in numerous forms, such as potlucks or cooking with roommates or friends. A young woman who identified food as a “social thing” in her life explained that she enjoyed cooking with other people.

“But also the process of cooking is also fun when you cook with someone else.”

A participant who lacked interest in food and cooking stated that his roommates had a high interest in food and cooking. He commented on how he perceived their interest to shape how they spent their time and money, as well as formed relationships.

“I had two roommates in a row, one moved out and another replaced her in our house. They always had jars of kefir water on the go. They made homemade kombucha. One of them was part of a lunch club. So on Sunday’s groups of people would come over like do a ton a cooking at the house. I sort of saw it as health nuts in air quotations. I think I was really sort of judgmental towards it. It was after awhile I sort of came to the realization that it was as much a hobby or like an interest as it was food. Like it was just, we had totally different views on it

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the same way people have hobbies, you know some people are into cycling or some people are into video games. These people were into food. Like that's how they sort of made their friends, they maintained relationships; it's how they got together with friends like during the week or on the weekend. It's sort of I think how they spent a lot of their discretionary income rather than spending the bare minimum they would spend their extra money and really enjoy and get something out of this”.

Alternatively, some students did not find enjoyment in cooking for themselves but liked to cook for other people. This young woman did not have an interest in cooking for herself but enjoyed cooking for her boyfriend.

“I really enjoy preparing meals for my boyfriend as well because it just makes me feel like I'm doing something more important than just feeding myself, like I'm making something good for someone else as well.”

Food Preparation & Health

All participants perceived basic food preparation skills as valuable to facilitate healthy food choices. These perceptions were independent of participants' current food preparation frequency and abilities. Most commonly, participants described the value of preparing meals from whole food/fresh ingredients in relation to processed, convenience and fast foods. The majority of participants identified that the absence of food preparation skills could contribute to increased reliance on meals that required minimal skills, such as convenience meals like Kraft Dinner, which were generally perceived to be unhealthy by participants.

“Well, if all you can do is boil water, you're going to be eating a lot of Kraft Dinner”.

Several participants expressed concern in relation to food habits they observed in their friends who lacked cooking skills and in turn regularly chose convenience or fast food.

“...my friends they never cooked and they never wanted to try even. So, if you don't have those skills, you are kind of reluctant to try and you turn to crappy things...”

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“I have seen some of my friends that don’t know how to cook and they move out and it’s a disaster. I don’t even understand how they do it. Ugh, it’s disgusting... First of all you go there and there’s pretty much nothing in fridge, but it’s all in the freezer and it’s pre-cooked or just like rice all prepared in a little pouch and ugh I don’t know they just eat that all the time and then when they come over to my place and I’m like ‘k, what do you want to cook?’ and they’re so excited, ‘like a meal, wow!’. So, I don’t know, I don’t think I would be happy with that kind of...”

Participants perceived home prepared meals from whole food ingredients as healthier compared to processed, convenience and fast food. Commonly, participants preferred home prepared foods because they could control what was in their meal, it facilitated a more nutritionally balanced/varied diet, and they knew where their food came from, as opposed to convenience or processed foods that participants associated with chemicals, preservatives, salt, sugar and fat. The following quotations were common responses given by participants.

“I just think it’s more healthier to be able to make it yourself from scratch than to have all types of chemicals put into it that you don’t know.”

“Just throwing something in the oven? Yeah definitely, like I said before, eating anything that’s processed or canned or put in a box, like I don’t really, you don’t really know where the food is coming from. So you don’t really know what you’re eating so I prefer fresh ingredients. I just feel it’s a healthier alternative cause there’s a lot of preservatives or other ingredients added to those products just to have a good shelf life and sit on the grocery aisles.”

The majority of participants thought it would still be possible to eat healthy while relying on only processed foods, but it would take a lot of effort as this method of acquiring healthy food would require planning to get a balance of food groups/nutrients and skills required to read nutrition labels and ingredient lists, indicating that these skills were perceived as important to have when choosing convenience foods or meals.

“I do but I think it would like, it takes a lot more effort because I mean you can buy healthy prepared foods but then you have to, I mean if you are a health nut, then you’d be like constantly checking what’s in the food like if you buy a new

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product then you'd have to check and see what all the ingredients are and additives and if you don't care then I don't think it would really matter. But I think you can still be healthy just would have to watch what you're buying."

Despite participants perceiving home prepared foods as healthier, six participants chose processed, convenience or fast foods the majority of the time. Additionally, two other participants indicated that they used to choose mostly processed convenience foods; however, they have recently made changes to their diets and currently prepare the majority of their meals from whole ingredients. The following participant, who perceived home cooked meals as healthier, also stated that he chose his meals based on what is convenient and cheap, not based on health.

"I mean, like I eat processed food most of the time but I can cook so I can definitely tell that you would be healthier if you cooked instead of eating processed foods all the time."

Another participant explained that people do not have enough time to cook meals from scratch despite this being perceived as healthier. As a result of time constraints, he perceived convenience foods to be a necessity.

"I know why processed food is bad and I know why the idea of it but I also understand why it exists too, to feed more people I suppose...I know that people don't have the time to make burgers at home or soup from scratch because I know how much time it takes to make a broth or care that much. But Campbell's tomato soup, like I don't think that's good for me or anyone really. I understand the need for it."

Food Planning & Time Management Skills

The majority of study participants perceived food planning and interrelated time management skills as valuable and necessary, especially to utilize food preparation abilities.

Food planning typically included planning in advance for grocery shopping trips and meals.

However, overall, participation in food planning was low among participants as most struggled

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to effectively manage their time. It was common for participants to identify both food planning and time management skills as something they would have liked to have learned more of, as some form of food planning was often an important precursor or facilitator to participation in preparing meals from whole food ingredients.

“Well, maybe just better strategies to plan out your meals. Like now I have kind of learned that it’s good to kind of prep a few meals in advance and keep them in the fridge. So, that would have been helpful, I didn’t really think of that.”

“Probably just the meal planning itself, like I have no idea what I’m going to eat for supper tonight... for the most part I have no idea what I’m going to make every night...It’s just thinking of variety and planning ahead of what to make because then I don’t just want to like ‘oh, I don’t have any time, I didn’t think of anything, so I’ll just have pasta’. I don’t just want to have Kraft Dinner every night.”

Although most participants did minimal food planning, the five participants who allocated time to plan meals in advance found this to be a helpful strategy to facilitate healthy eating. Most commonly these participants would plan a few or several meals in advance as well as cook food in large batches to facilitate leftovers. A young woman described the difference in her eating habits when she did not plan her meals for the week compared to when she did.

“...when I moved and was on my own in my own apartment I still at the beginning was kind of just buying lots of prepared stuff because I didn’t want to waste the time cooking because I mean it takes time to prepare a meal and so I didn’t, at first I just bought a lot of prepared stuff but then I started to go back to making all my meals myself...On Sunday I usually plan my entire week and I’ll cook it all on Sunday. And then I package it all and I’ll freeze half of it and then the other half is in the fridge and then I’ll just grab it as I go. I never used to though. I used to eat a lot more and I would be constantly be eating cause I wouldn’t have the structure. So and I would grab anything that was around the house to like eat I guess. When I didn’t plan I used to end up buying a lot more from campus and stuff.”

Part of the planning process for some participants was having their kitchens stocked with basic ingredients that allowed them to make a meal from scratch.

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“When I can I usually make three meals a week maybe I’ll kind of have an idea what I want for the week and the rest is kind of using up leftovers or whatever was on sale at Superstore type of thing so I try to plan out as best I can. It’s not a huge priority because...I always have the basic ingredients in my house to whip together something if need be.”

Conversely, one participant who had food skills and pre-planned their meals for periods of time did not find this to be beneficial.

“There have been points in my life where I’ve like spent maybe 2, 3 weeks and I’m like yeah I’m going to eat really healthy and I’ve done a bunch of grocery shopping and planned my meals in advance and packed lunches. I don’t ever stick with it though... I found it was kind of annoying having to shop ahead, like I had stuff going bad on me in the fridge before I had reached that day of the week. I didn’t find I was saving a lot of money by preparing healthy lunches at home and taking them as compared to like buying from the cafeteria or Stella’s at school.”

Nutrition: Knowledge, Skills, Attitudes & Values

Perceptions of Healthy Eating

All participants were fairly confident they knew, in general, what it meant to eat healthy. Definitions provided by participants were quite similar and based around common nutritional recommendations given by health professionals, the food industry and media, which included: eating according to Canada’s Food Guide (balance of four food groups and nutrients); proper portion sizes; regularity or frequency of meals; adequate consumption of fruits and vegetables and avoidance of nutrients perceived to be unhealthy (white foods/starches, sugar, sodium, fat, carbohydrates, calories, gluten, and food additives/preservatives) as well as ratio of fats, carbohydrates, and protein. The following quotation is an example of a common definition of healthy eating provided by participants:

“I guess eating a balanced diet, listening to your inner hunger cues, knowing when you are full. Making sure you get all the food groups and try to eat a lot of fruits and vegetables because they have a lot of vitamins and minerals and just eating when you are hungry and stopping when you are full. I guess you can have the occasional treat of course.”

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Two participants included eating with people or in social ways as part of their definitions of healthy eating.

“Not over eating, recognizing when your body is hungry, when your body is full. I would say colours because the more colourful your plate is the healthier it probably is; natural colours that are not artificial colours. Try to avoid white foods or white starches, a variety. Those are kind of ideas, and yeah, eating with people.”

One participant did not provide the common healthy eating definition identified by other participants. His definition of healthy eating was primarily centered on consumption of enough calories and vitamins. This participant did not consider vegetables and “actual chicken” an important part of eating healthy.

“I guess that’s kind of changed since I started living on my own. Like I used to think it’d be like eating lots of vegetables, eating actual chicken and things like that. But now it’s more, I just think about as long as your diet has enough calories and all your vitamins, just all your essentials in it, then that’s healthy enough.”

Students commonly identified that they currently did not meet their definitions of healthy eating for varying reasons; typically due to perceived time-constraints or an absence of health concerns. The following quotation is from a participant who described herself as “really busy” throughout her interview.

“Currently, I think I’m a little bit lacking according to my standard of healthy food I think. Like I could definitely do more to eat healthier...”

Although less common, three participants struggled to meet their standard of healthy eating due to self-identified disordered eating patterns. One participant explained her challenges around food and eating in the following way, which she perceived as barriers to eating healthy.

“I guess, I’m scared of like if I get too focused on it again I’m going to get obsessed with it just because of my past I guess and I have a hard time following my hunger cues because I used to be a yo-yo dieter so much like I have a hard time following my true hunger cues when I am actually hungry and full. It’s like I barely have it any more so I have to kind of regulate myself but then again I don’t

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want to be counting every calorie I eat so I am just kind, like at one point I do hope to be able to match my definition of healthy eating.”

While the majority of participants’ definitions of healthy eating were similar, this did not reflect the wide spectrum of healthfulness of participants’ diets or self-identified confidence regarding healthy eating and nutrition. Additionally, there was an underlying uncertainty in participants’ confidence regarding nutrition and healthy eating.

“I wouldn’t say I’m completely confident cause I’m still like learning a lot of stuff but I’m somewhat confident.”

“Not really, like by no means do I know a lot about healthy eating. I’ve never learned about it, just from what I think looks healthy pretty much. I know a salad with, like I know certain salad dressings aren’t that healthy, but I know if I were to go home and have spinach with chicken breast and nuts and just a vinaigrette dressing I know that’s a pretty healthy meal considering I see my friends going out and eating a Pizza Pizza or Little Caesars or McDonalds, I mean any fast food is a whole other level of disgusting in my opinion, I don’t know how bad it is for you, but after Super Size Me, I’m completely done with fast food.”

Interest in Nutrition & Diet Trends

Several participants were interested in learning about nutrition, vitamins and minerals, and improving the nutritional quality of their diets. Some of these participants identified self-learning around nutrition and popular/mainstream nutrition and diet trends.

“...this past summer I worked as a cook for little bit. And we had a couple vegans at our camp and I guess you just start to explore the fact, you know they say people shouldn’t be drinking milk, or people shouldn’t be eating as much wheat as they do. So, I like to look into that stuff and see what the claims are behind that.”

“I had to take a nutrition course for one of my pre-requisites and I think that was like a little boost to my learning about nutrition or wanting to learn about nutrition. So I was just trying to learn about foods that are really healthy for you that are high in vitamins and stuff that your body needs. So I think after that class I just went looking around and searching for information on my own on what kinds of foods are good for your body.”

The majority of participants tried to chose foods, in part, based on their perceived

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healthfulness and nutrient composition. More specifically, participants were concerned with avoidance of nutrients perceived to be unhealthy, most commonly sodium, sugar, fat and carbohydrates; as well as food additives such as preservatives.

“I try not to buy anything with too much salt or sugar...I always go for stuff that doesn't have preservatives.”

“I try not to buy too many foods with carbohydrates. I try to buy everything but carbohydrates... anything with enriched wheat flour, like simple carbs, stuff like that.”

“I hear a lot of like preservatives are bad for you and I try not to eat from cans that much as there's BPA or something in it.”

“...when I'm picking out a Caesar salad dressing like I'll go with the calorie-wise or the fat free...”

Some participants chose less healthy food products for a certain nutrient perceived to be healthy. In this case, the participant chose chocolate milk, which is high in sugar, for the purpose of getting the nutrient calcium.

“I try to have chocolate milk to get calcium.”

Several participants described a high level of interest in nutrition but consumed nutritionally poor diets. The following quotes exemplify this behaviour in two individuals who prepared minimal food at home and consumed a diet high in convenience type foods/meals and low in fruits and vegetables.

“I read a lot of books about health and stuff like that and so I find it really intriguing like all the different nutrients and stuff that are in everything so I try to have a balance and eat stuff like that.”

Another participant with similar diet habits as described above also identified being interested in aspects of nutrition such as calories and the four food groups. Additionally, this participant identified herself as a “yo-yo dieter” and explained emotional struggles around food and eating in other parts of her interview.

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“I have always been really interested in calories and stuff and I’ve always been really interested in like the four food groups and health and stuff.”

Some participants discussed observing “diets” that their friends followed. This was most commonly expressed by female participants in reference to other female friends.

“...oh that’s the big thing too! All my friends they’re on these shakes and I’m thinking like how, you’re on shakes, are you just going to drink shakes for the next 50 years? Like you need to learn how to eat to maintain your weight and be comfortable with what you’re eating. Like you can’t just have shakes for breakfast, lunch and supper, like you need to learn how to eat real food.”

“I have some friends who are like ‘k, I’m going to go on a fruit diet’. No, that’s not good, you need a balanced diet.”

Health & Body Weight

Participants strongly associated health with a healthy body weight. One participant, despite being raised with healthy eating norms, didn’t know certain foods would cause weight gain until she experienced this after she left her family home and lived in a new country. This young woman didn’t realize she was eating high calorie foods until she experienced weight gain, which indicated to her there were concerns regarding these new eating habits.

“... we’ve been raised in a super healthy family, like no chips, no chocolate bars, whatever like that’s just how it is right, if you eat your fruits, veggies, and milk and whatever. So, I would consider most of my food knowledge comes from my parents but other than that I’ve never had to worry about weight or health you know what I mean. I know that once when I lived in Europe on my own I gained a lot of weight and it was because I was eating a lot of carbs and noodles and bread and beer and I didn’t know that was fattening. That’s also when I learned a lot.”

Some participants indicated that due to an absence of weight gain they did not make healthy food choices. One participant, whose diet consisted primarily of fast food and very low fruits and vegetables, acknowledged that his eating habits were not healthy or sustainable, yet due to an absence of disease or weight gain he was not motivated to make healthy food choices.

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“I’m fully aware that I cannot eat like this forever, it’s just not sustainable at all. So it does have to change at some point but I think it’s until there’s something really negative in front of me like some health concern or some rapid weight gain. Something bad would have to happen right now for me to drastically change; which is not a good approach.”

Two other young men explained that despite their understanding of healthy eating they don’t eat according to these standards because they are physically active and therefore burn off the calories from unhealthy foods.

“I probably don’t eat quite as healthy as I should because, I play football right, so we’re in the gym a lot so it’s easier to eat more when you know that you’re burning some of that. So I probably don’t eat as healthy as I should. But I think overall I have a pretty good idea of what healthy meals are.”

Several participants expressed fear with regard to gaining weight. One participant stated that she avoided sugary snacks to avoid weight gain. However, this participant consumed several beverages and snacks high in added sugar, such as hot chocolate and “fruit to go” bars.

“I don’t really like to get sugary snacks or anything because I’m trying to watch my weight.”

Another young woman described her relationship with food and her fear of getting fat:

“Right around when my eating disorder started and food was like the enemy. Like I couldn’t eat it or if I ate something it was going to make me fat or this was bad and that was bad.”

In contrast, two participants who identified themselves as healthy eaters, demonstrated high food knowledge and skills, and illustrated healthy/balanced food choices, did not discuss their interest in health, food and nutrition in relation to achieving a certain body weight. One participant expressed her preference for homemade cookies over store bought cookies, when she chooses to “indulge”. Although homemade and store bought cookies are likely to be similar in calories, she perceives homemade cookies to be of a higher quality and therefore healthier.

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“I do indulge, like I love making sweets and stuff like that, but I wouldn’t eat a bought cookie, I would eat a homemade cookie, I’d eat 5 homemade cookies, you know.”

Natural Environment: Skills, Knowledge, Attitudes & Values

Overall, the majority of participants lacked understanding of connections between food and the natural environment and therefore did not think about these connections when making food choices. For example, a young woman explained that she doesn’t consider the natural environment when grocery shopping due to a lack of information on the subject.

“I don’t think so but I think that’s just because I don’t quite understand right now. Like I guess I don’t have much information on the subject so I’m not really sure.”

Although most participants stated they did not consider the environment when selecting foods, they were concerned about “where food came from”. However, there wasn’t a clear indication that the concept of “where food came from” was fully understood by participants or that it translated into altered food choices. Additionally, it wasn’t clear why this concept of “where food came from” was important to participants. One participant pondered this concept, which he appeared to have not given significant thought to prior to the interview. However, he elaborated on what “where food comes from” means to him, which only a few other participants did.

“What about, you sort of talked about where food comes from. I think that might be a little bit important or really important to I guess understanding nutrition. I guess we don’t feel like we know enough. Like we can look at the labels but often times we don’t know like what was this chicken fed specifically. And I guess the organic movement has been trying to sort of insert that transparency but I guess overall even as children we’re not sort of, we sort of take it for granted because we don’t really think about it too much...What’s in that food? Where does it come from? How is it made?”

Another participant expanded on the concept of “where food comes from” in relation to different types of meat production as well as organic and local foods.

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“K, the where it came from and cost kind of tie to each other because if it came from within Canada it’s usually cheaper. And then like where it came from like whether or not it came from, I’m kind of a health nut, if it came from like forced growth farming where they pump it full of hormones and stuff like that so I guess that’s kind of my where it came from...I try to buy organic stuff and also I like to buy local too, for sure, so if it’s from Canada or Manitoba I will definitely take that even though it’s more expensive.”

Two participants who had a more comprehensive understanding of food and the natural environment had experience or university educational backgrounds regarding these concepts. For example, one participant who grew up on a farm articulated her perceptions on food production and often emphasized the importance of the quality of food in addition to the nutritional properties.

“I grew up on a farm also so we always had a big garden in the summer. My dad raises beef and sheep. So, I had a lot of education I guess. We used grass fed meat and beef so it was kind of always in my house education on quality food and healthy food, just coming from an agricultural background. I learned a lot from my mom, I cooked a lot at home when we were younger because we were four of us. So, we all kind of helped out with stuff like that.”

A few participants tried to choose organic foods, however most participants were not interested in purchasing organic foods due to perceived additional costs or skepticism with regard to the actual quality of organic foods.

“Yeah, I always walk by the organic section and its like should I be buying the organic bananas or the regular ones? You think of like herbicides, pesticides that farmers put on the produce while they’re harvesting it. I mean then it comes back to the financial aspect. It’s like are you going to pay 25 cents more a pound for all your produce, like whatever that looks like on a bill for a week, like it kind of comes back to that and at this point I’m just a student, I’m not really making a whole lot of money and I’m not working a whole lot of hours because I’m in school full time. So at this time I just can’t really afford to do that.”

“I did want to mention to you my view on organic food. Like they say how great it is but it’s like, if you’re not growing it yourself, you really don’t know what it is.”

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Food & Nutrition Confusion

Despite most participants feeling comfortable providing a definition of healthy eating, several participants explicitly stated confusion with regard to nutrition and healthy eating. Most commonly, participants expressed confusion around nutrition messages delivered from varying sources (health professionals, media, and food industry). The following participant explained her frustration and confusion surrounding conflicting nutrition messages.

“Actually, I would like to learn more about herbs and stuff to use instead of salts, cause I don’t know I just heard a lot about it on Dr. Oz and stuff and I am like yeah I am just trying to. I’m getting so confused about what to use and what not. You always hear like this is good this isn’t good. You hear the opposite from almost everything it seems. I wish we could have got more facts on what’s right and stuff especially like herbs and stuff they say like they are really good in antioxidants you always hear about those. I wonder like what’s true and what’s not true.”

One participant expressed misunderstanding regarding the relationship between nutrition and diseases, in this case high cholesterol.

“I’m pretty healthy. But I’m health conscious. And I want to make sure that I don’t have high cholesterol or anything like that as I grow older because I see people with it all the time. And I don’t know what causes it but I know healthy eating definitely won’t hurt it.”

Several participants described confusion in relation to different aspects of nutrition. For example, some participants identified that “calories” are not well understood and do not carry significance.

“Like I don’t know what a calorie is in perspective to anything else. Like as a measurement to what, like I don’t even know what those words usually mean. I just know the higher the number the worse.”

Another participant, despite learning basic food and nutrition knowledge from her parents, did not feel she understood nutrition well.

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“It definitely would have been helpful to know more just in general like I said I don’t really know what a calorie is, I don’t know that stuff, my parents just gave me the basic knowledge of fruits are good, milk is good, you know, but like I said my cousin, she is pretty much vegan and she has a lot of knowledge, like this is good, this is bad, this is what you should get.”

Some participants were skeptical with regard to nutrition marketing through media or various health claims. A young woman described the capital interests of food companies that may not be in the best interest of the public.

“And how the media influences so much of the stuff we do. Like the Biggest Loser it’s like they’re advertising Subway all the time. It’s like okay I’m pretty sure if I ate Subway all the time it wouldn’t be like that because I just don’t get the veggie sub so I mean the media tries to be good but at the same time it’s like they’re just setting you up to fail because you still have McDonalds, like that’s obviously raining all the territory. It’s all about money. They’re like eat fast food and get fat and then the same company will sell you a weight loss pill under a different name. I think media’s just consuming people and they’re not actually paying attention to the little rainbow chart of what you should eat. Like just back to basic.”

Some participants described their perceptions around nutrition labels and health claims.

The following participant explained that he is now “jaded” with regard to food products claiming to be healthy.

“...I’m kind of jaded when it comes to labels, when it says sugar-free, I’m used to being like ‘oh what else is in there that makes it bad’ if it’s sugar-free. There’s something replacing that sugar to get that taste or that kind of thing. So a lot of stuff throws me. And I’m just jaded when it comes to that.”

“Some of the cereal I was buying, when it’s marked with that green check mark saying that it’s healthy for you, it’s not healthy for you. I don’t know how it got that green check mark.”

One participant, who understood nutrition well, described confusion around healthy eating amongst her friends.

“I do think that the emphasis on healthy food needs to be pushed a little more because I know a lot of people or most of my friends have a lot of trouble even knowing what’s healthy or what they should be eating or they’re eating something and you tell them what’s in it and they’re like ‘oh I had no idea that it’s that bad

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for me'. So I think there's a lack of education around healthy food and how to do it and how easy it is."

Food & Nutrition Contradictions

Contradictions were also common in regard to what participants thought they were eating compared to what they were actually eating. Often, this was in relation to the perceived healthfulness of their diet compared to the actual quality of their food choices. For example, the following quotation is from a student who explained that she tried to avoid added sugar. Within this same statement, she explains that she chooses chocolate milk, which is high in added sugar. Additionally, this participant described eating other foods typically high in added sugar, including hot chocolate, "fruit to go" bars and slim fast milkshakes.

"I look for stuff with not too many ingredients like I try to buy fresh things without added sugar or fat but I want to make sure like I don't want to buy just all fruits and vegetables obviously...Yeah and I try to drink milk when I can, chocolate milk."

Participants commonly reported avoiding processed or convenience foods; however other parts of their interview revealed consumption of these foods, which contradicted other statements. For example, a participant who reported avoiding processed foods in the initial part of his interview later stated:

"I'm bad for eating either cookies or some other dessert or pudding like that's usually after supper I'll have some of that."

Another participant explained that he tries to avoid pre-prepared meals due to the sodium content; however he often eats out at restaurants which typically have foods high in sodium. The following quotation is in response to whether or not he perceives foods skills as valuable to have.

"I think it's probably way more healthy than buying frozen stuff that's packed with sodium. Yeah, pre-prepared meals, not a big fan of them, I usually eat at a restaurant or cook."

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Another participant contradicted himself when he explained that he will not go to restaurants that serve chicken wings as the main meal. However, prior to the statement above, this participant described eating chicken wings at home for dinner the day before his interview.

“I love going for suppers and stuff with friends. Like dinners. But it’s just if I know they don’t cook food that I’ll eat I won’t bother going. But for the most part I like the homey meals, like potatoes and gravy and chicken or like turkey and stuff like that I’ll go but if I know they’re going to make [chicken] wings or chicken fingers as the main meal or nachos for supper, no.”

One participant contradicted herself regarding the price of healthy foods compared to unhealthy foods. At one point in the interview this participant explained that she perceived healthy foods such as vegetables to be more expensive than items such as chips:

“Obviously to eat healthy, it’s a lot more expensive and we’ve learned that cause yeah it’s cheap to buy chips but it’s also not as good if you buy vegetables.”

This same participant, at a different point in her interview, stated that fresh vegetables are cheap compared to eating out for meals, which is why she prepared most of her meals at home.

“But pretty much all the time, one because to me it seems so expensive and a waste of money to go out and buy your meal every night and it’s so much cheaper to have fresh vegetables.”

DISCUSSION

Study results demonstrated various aspects of food literacy that young adults perceived as valuable to their health and well-being, which primarily centered on food preparation skills and nutrition knowledge in relation to body weight and disease prevention. While cultural food knowledge, understanding of or concern for food impacts on natural environment, and social considerations were minimal. This is consistent with the “nutritionism” paradigm that dominates the medical-nutrition discourse in medicine, science and industry (Scrines, 2008). Additionally,

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results illustrated the complex food environments inhabited by young adults as they transitioned to independent living; this was in part demonstrated through observed food and nutrition contradictions and confusion experienced by participants.

Food Preparation: Skills, Health & Participation

Food Skills & Health

Overall, participants in this study perceived food preparation skills as important for acquiring and maintaining health. The benefits of food skills were frequently discussed in relation to processed convenience foods and/or fast food, which were perceived as nutritionally inferior compared to home cooked meals prepared from whole/raw ingredients. Thus, participants recognized basic food preparation skills as important to decreasing reliance on pre-packaged processed convenience foods and facilitating greater “control” in their food intake.

Participant perceptions with regard to food skills and health are aligned with existing literature indicating that increased diet quality is associated with greater frequency of cooking and using more complex preparation steps (Larson, Perry, Story, & Neumark-Sztainer, 2006; Thorpe, Kestin, Riddell, Keast & McNaughton, 2012). Conversely, eating out more frequently is associated with obesity, and higher body fatness and eating more fast-food meals is linked to consuming more calories, fat, saturated fat, and sugary soft drinks and less fruits, vegetables, and milk (Larson et al., 2006; Laska, Larson, Neumark-Sztainer, & Story, 2011). Furthermore, a growing body of evidence attributes the rise in obesity and related chronic diseases in part to the combined effect of insufficient vegetable and fruit consumption, increased occurrence of meals away from home, poor food preparation skills, and increased portion sizes (Lino, Gerrior, Bastiotis & Anand, 1998; Rafioura, Sargent, Anderson, & Evans, 2002).

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Despite participant perceptions around the healthfulness of “home cooked” meals prepared from raw/fresh ingredients, the majority of study participants chose processed convenience foods in varying frequencies. About one third of participants predominately chose processed convenience foods and rarely prepared meals from whole ingredients. Conversely, about one third of participants stated that they prepared the majority of their meals at home from whole ingredients. Reasons for participants’ degree of participation are elaborated on in the following section (‘Participation in Food Preparation’).

Participation in Food Preparation

The degree of participation in food preparation ranged from low to high in participants and was dependent on individual factors, including: confidence and competencies around food skills, interest in cooking and health, and perceived time constraints, which is consistent with findings from Larson and colleagues (2006) and Thorpe and colleagues (2012).

Competence & Confidence

Food related skills/knowledge and confidence ranged from low to high across participants; the majority of participants perceived themselves to have at least basic food skills. Study results were consistent with recent statistics which demonstrated that 31 per cent of 18 to 29 year olds feel confident in the kitchen in comparison to 48 per cent of those 50 and older (Sobeys Inc., 2014).

Some participants self-identified a high level of food preparation skills yet chose processed convenience or fast foods the majority of the time either due to a lack of interest in cooking or health, perceived time constraints and/or absence of weight gain/health concerns. On the other hand, some participants believed they *could* cook but did not describe participation in

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food preparation in past or current food choices and experiences. This finding was possibly due to the perception by participants that they *should* have cooking skills which were recognized as important for a healthy diet. This attitude is possibly reflective of the social desirability of “healthy eating” which may have created greater tendency of participants to provide socially favourable responses (Strahan & Gerbasi, 1972).

Additionally, participants may have *believed* they could cook regardless of having the food skills to do so. Perceptions of “cooking” have drastically changed as more often a combination of processed foods assembled together can constitute a home cooked meal (Engler-Stringer, 2010). This was evident where some participants described “cooking” processed convenience meals. As well, there is a great deal of interest by the public in cookbooks, celebrity chefs, and “food TV”, which can provide people with a false sense of confidence with regard to cooking due to what they view frequently on TV (Adema, 2000; O’Sullivan et al., 2008). In reality, people spend less time cooking than ever before. Eighteen per cent of Canadians prepare at least one meal per day made from scratch or with basic ingredients and are consuming increasing amounts of processed or prepared foods (Sobeys Inc., 2014). Furthermore, one third of Canadians’ food choices come from “other foods” (nutritionally-poor, calorie dense snacks, candies and condiments) than from the four basic food groups (Garriguet, 2007).

Interest in Cooking

It was observed in this study that participants who had an interest in cooking coupled with food and nutrition knowledge/skills were more likely to participate in food preparation. An interest in cooking was a defining and significant characteristic in certain participants which translated into a variety of healthy food behaviours and habits including: increased frequency of food planning and preparation using whole ingredients, consumption of fruits and vegetables and

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eating in social ways, and less consumption of processed convenience and fast foods. However, cooking experiences and resultant skills typically preceded interest in cooking. Therefore, creating food learning opportunities prior to transitioning to independent living may be critical to pique interest in cooking, which was associated with a variety of healthy food behaviours.

Food Preparation Experiences & Learning

Literature suggests that foundational food learning opportunities are under threat for various and complex reasons (Caraher and Lang, 1999, Jabs et al., 2007; Slater et al., 2012; Slater, 2013). Reasons include: everyday work and chaotic family schedules (Lichtenstein & Ludwig, 2010); more women working outside the home (Flagg, Sen, Kilgore & Locher, 2014; Woodruff & Kirby, 2013; Zayak- Reynolds, 2004); and challenges with regard to Home Economics Food and Nutrition programming within the school system (Lichtenstein & Ludwig, 2010; Slater, 2013). This decline in and lack of food and nutrition learning opportunities raises concern that current and subsequent generations are being increasingly “de-skilled” regarding fundamental food planning and preparation skills (Beagan, Chapman, D’Sylva, & Bassett, 2008; Höijer, Hjalmskog, & Fjellström, 2011; Larson et al., 2006).

Natural & Social Environments and Food Culture

Despite interest in ‘healthy eating’, overall participants lacked cultural food knowledge, and had minimal understanding of or concern for food impacts on natural environment; further, social considerations given to food in participants’ lives were minimal. Therefore, these aspects of food typically were not considered when making food choices on a day to day basis. This is concerning because to be “well” society must exist within healthy natural and social environments (Pollan, 2007). Rather, participants’ primary understanding of and/or interest in

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food were specific to nutrients and its relation to body weight or disease prevention. Participants who had more comprehensive understandings of food and well-being had unique learning experiences from family environments or higher education. These findings are consistent with the “nutritionism” paradigm that dominates the medical-nutrition discourse in medicine, science and industry (Scrinis, 2008).

“Nutritionism”

The dominant response to the poor nutritional health of the population has been the rise of “nutrition science”, a biological science “concerned with the interactions of food and nutrition with physiologic, metabolic and now also genomic systems, and the effects of these interactions with health and disease” (Beauman et al., 2005, p. 783). “Nutritionism” is an emerging concept in the literature which describes this response as being reductively focused on nutrients and disease prevention, decontextualized from individual biologies, rendering traditional, culturally relevant cuisines invisible (Nestle 2000; Pollan, 2007; Scrinis, 2008). Aspects of “nutritionism” were a common thread that ran through several themes that emerged in this study which are explored below.

Nutrient & Weight Focus

The majority of young adults in this study expressed an interest in nutrition and were confident in defining “healthy eating”, focused largely on common nutrition and healthy eating recommendations given by the nutrition industry (nutrition scientists, dietitians, public health authorities, purveyors of diet products and books). In particular, participants were concerned with avoidance of foods and nutrients perceived to be unhealthy, including: white foods/starches, sugar, sodium, fat, carbohydrates, calories, gluten, and food additives and preservatives. This

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finding was possibly observed due the pervasiveness of recommendations for citizens to consume “nutritionally balanced” diets, by eating less of certain nutrients (saturated fats, sugar, salt) rather than less of the actual foods that contain high levels of these nutrients such as processed meat or sweets (candies, baked goods) (Scrinis, 2008).

Interest in nutrition was often coupled with a desire to achieve a certain body weight or a fear of gaining weight. Young adults in this study commonly identified weight loss “diets” that they or their friends followed, currently or in the past, and several indicated that weight was the most significant indicator of health. Some participants indicated that due to the absence of weight gain or health concerns they did not make food choices perceived to be healthy. In some cases participants did not realize their food choices were unhealthy or high in calories until they experienced weight gain. These results are consistent with current models of health which tend to focus on nutrients and disease prevention (Block et al., 2011; Nestle 2000; Pollan, 2007; Scrinis, 2008). Block and colleagues (2011) argue that the current food as health model focuses on functional and medicinal, paternalistic and normative, restraint and restriction, and body mass index. Therefore, they propose a paradigm shift to food as well-being, which is holistic and integrative, consumer oriented, has a positive approach and is directed to attitudes and behaviour.

Furthermore, interest in nutrition and body weight is observed in the wider population. There is unprecedented interest by the public in food and nutrition, including vitamins, minerals and supplements; weight loss regimens; and organics and local foods (Adema, 2000). Health and wellness is also a concern for consumers, in part due to the high prevalence of public health obesity-prevention advertising campaigns (Boero, 2013; Kornfield, Szczypka, Powell, & Emery, 2014). People are more likely to proactively pursue food and beverages, provided by a multi-billion dollar food industry, that they perceive will support physical health for themselves and

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their family members, and there is increased demand for “functional foods”, “nutraceuticals”, “natural”, organic, and novel food products (Zayak- Reynolds, 2004). However, while Canadians exhibit high interest in the area of nutrition this has not been translated into actions and behaviours that promote individual and population health and wellness (Canadian Medical Association, 2013).

Food & Nutrition Behaviours, Contradictions, and Confusion

Participants’ interest in nutrition and general knowledge of healthy eating did not necessarily translate into healthy eating behaviours and actions. Participants displayed an awareness of this as the majority of them identified that they did not currently meet their definition of healthy eating. However, participants also described contradictions between the perceived healthfulness of their diets compared to their actual food choices expressed during interviews. This finding raised several questions. Firstly, do young adults have the skills and/or motivation to put internalized healthy eating knowledge into action? Secondly, do young adults *believe* they are making healthier food choices than they actually are or do they feel they *should* be eating healthy and therefore described contradictory food choices and beliefs during their interviews? Although these questions cannot be answered definitively from this study, they must be considered when examining the observed disconnect between perceived food and nutrition knowledge and actual food choices and behaviours.

Perhaps these contradictions were in part due to “nutrition confusion” evident in the study participants. Nestle (2013) exemplifies this finding when she states: “On the one hand, our advice about the health benefits of diets based largely on food plants - fruits, vegetables, and grains - has not changed in more than 50 years and is consistently supported by ongoing research. On the other hand, people seem increasingly confused about what they are supposed to

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eat to stay healthy” (Scrinis, 2008, p. 39). Some participants implied distrust and skepticism toward the nutrition industry.

Results from this study indicate that current methods of translating healthy eating messages may not be effective in creating behavioural change at the consumer level. The confusion expressed by participants with regard to healthy eating and nutrition added to their discrepancies between desires to make healthy food choices and actual food behaviours. Some researchers argue that this is due to current North American dietary guidelines being misguided, nutrient focused, and food industry friendly (Sichieri, Chiuve, Pereira, Lopes, & Willett, 2010). In comparison, Brazil has recently issued a new guide that attempts to convey “food-based” healthy eating messages to the public. Similar to the North American guidelines, the Brazil Dietary Guideline (BDG) is designed to prevent malnutrition, and to prevent and control overweight and obesity, and chronic diseases; however the BDG go further to encourage good health and well-being. In particular the BDG examines the central role of different types of processing on the quality of diets. This guide takes a broad and comprehensive view of health, including the social, cultural, economic and environmental dimensions of food systems and supplies.

Time Constraints & Convenience Orientated Food Environments

Study results must be examined within the context of current food environments and social norms, particularly the fast paced and busy nature of day to day life. Today, consumers often feel overwhelmed by their lifestyle obligations, which are a primary driver for the desire for convenience, and often regulates and determines food choices (Agriculture and Agri-Food Canada, 2010; Slater, Sevenhuysen, Edginton, & O'Neil, 2012). Lack of time is the most

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commonly reported barrier to healthy eating among adults overall, including young adults (Greaney et al., 2009; Kearney & McElhone, 1999; Nelson, Kocos, Lytle, & Perry, 2009).

Therefore, it was not surprising that participants' general desire to make healthy food choices often conflicted with their perceived time-constrained lives and resultant need for ease and convenience with regard to eating. These time-constraints were compounded with a lack of time management skills which appeared to result in an increased frequency of eating processed convenience foods or fast foods, skipping meals, and/or eating on the run. These results are consistent with Pelletier & Laska (2012) and these food habits/behaviours are associated with less healthful dietary intake and excess weight gain (Duffey, Gordon-Larsen, Jacobs, Williams, & Popkin, 2007; Larson, Nelson, Neumark-Sztainer, Story & Hannan, 2009).

Food corporations respond to, and reinforce these values and norms by offering more and more convenience and ultra-processed food products (Moubarac et al., 2013). Market trend analyses have shown that the two categories experiencing some of the largest growth in the food sector are snack foods, including hot snacks, and frozen prepared meal entrees (Pierce, 2005; Research and Markets, 2007). As well, snack foods now account for one quarter of calories consumed by Canadians (Garriguet, 2007). These foods tend to have less than optimal nutritional content and are frequently high in salt, fat and sugar and low in fibre and other essential nutrients. A dietary pattern high in salt, fat and sugar and low in fruits and vegetables is associated with a higher risk of overweight/obesity and related conditions (Bowman & Vinyard, 2004). The vast availability of these foods that comprise our current complex food environments allow for quick and easy eating, however, they reinforce consumption of too many processed convenience foods, and a decreased frequency of preparation of meals from whole/fresh ingredients.

Research Implications

The results of this study suggest that while young adults may value “healthy” eating, they are at risk of leaving their family homes lacking the necessary food literacy required to make healthy food choices, sustain healthy food relationships and live well within current complex food environments. Results of this study, supported by other literature, argue that re-evaluation of food and nutrition educational practices in the school systems are required. More specifically, that implementing mandatory Home Economics Food and Nutrition education, reflective of current food and nutrition knowledge, issues and contemporary lifestyles, would be a valuable and worthwhile undertaking to “re-skill” and prepare people to effectively navigate the increasingly complex modern foodscapes in a healthy way; thereby creating food literate future generations. In addition to “re-skilling” youth with regard to food and eating, this education is paramount in changing values and attitudes around food, cooking, and health, which must be a defining aim of food literacy. It is critical to challenge and shift what is valued in our society, and deemed worthy of our time. Perhaps the goals of our education system should be to educate young people to be well, first and foremost, which appear to be inextricably inter-connected with food literacy.

A significant finding from this study which serves to advance the understanding and implications of food literacy is that young adults have a narrow/reductionistic view of food, health and well-being, primarily centred on nutrients and physical health outcomes while lacking environmental and social understandings/considerations of food. This study proposes that being food literate is a vital aspect to living well, beyond individual physical health. These findings indicate that food literacy should be examined within a larger context of well-being and young adults could potentially benefit from expanding their views on food to encompass cultural

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knowledge, environmental stewardship, and family connectedness. While empirical work is required to examine the linkages between food literacy and well-being more closely, this study advocates that food literacy can be seen as an integral “thread” running through conceptualizations of well-being, profoundly influencing the quality of individual and community life.

Limitations

This study has several limitations that should be taken into consideration when interpreting the results. First, the study used a small sample size of Canadian university students who may not be representative of views and experiences of young adults from other backgrounds. As such, participants in this study may have shared more similar food experiences and challenges in the context of being a university student. However, a wide range of food literacy was demonstrated across participants as well as quite unique food experiences were described.

Secondly, the study did not quantitatively examine the food and dietary intake of study participants. Furthermore, the study did not have a quantitative measure for determining food literacy among participants. This limits the ability to draw conclusions about implications for the relationship between food literacy and health/well-being outcomes. However, the qualitative methods applied here revealed a rich understanding of food literacy levels among participants and the healthfulness of their overall dietary patterns.

Lastly, the study likely did not capture the full breadth of influences on the development and utilization of food literacy, which is highly complex due to individual (biological and psychological) and contextual factors. These influences will undoubtedly impact food learning,

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choices and relationships. All of these points were taken into consideration when interpreting study results and drawing final implications/conclusions.

Despite these limitations this study served to advance our understanding of food literacy from the perceptions of young Canadian adults and put forth practical strategies to possibly improve health and well-being. Future research is required to further explore the scope and boundaries of food literacy and to empirically measure the linkages and pathways between food literacy and well-being. Finally, further work is needed to examine how to best translate food literacy through family, cultural, educational and private sector institutions.

CONCLUSION

This study has explored the concept of food literacy from the perceptions of young Canadian adults in the context of loss of foundational food knowledge, skills and culture, poor health, and growing concern over current food systems. It appears from this study that young adults may not be equipped with the necessary food literacy to navigate complex food environments. However, food literacy may prospectively develop the necessary scaffolding to create healthy food relationships that are sustainable as opposed to merely applying “food rules” focused on nutrient avoidance/acquisition and physical health and thereby broaden views on food and well-being. A recent report, “Health care in Canada – what makes us sick?” (Canadian Medical Association, 2013), identified nutrition and food security as one of four major threats to health and well-being in Canada, underscoring the importance of connecting food literacy and well-being. Food literacy for well-being is an important concept that can help researchers, practitioners, planners and educators create new ways of thinking and educating about food and nutrition. Food literacy can provide a foundation for creating policies and programs to prevent

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disease, promote complete health and flourishing, and sustain cultures and the natural environment.

CHAPTER 5

Challenges to Acquiring & Utilizing Food Literacy: Perceptions of Young Canadian Adults

INTRODUCTION

There is a growing body of evidence demonstrating a reduction in food and nutrition knowledge and skills in the general population, which has contributed to serious public health concerns including obesity and other nutrition-related chronic diseases (Caraher & Lang, 1999; Cutler, Glaeser, & Shapiro, 2003; Jaffe & Gertler, 2006). Obesity rates have risen alongside increased consumption of processed and ultra-processed, low nutrient and energy dense food commodities and sweetened beverages that are typically mass-produced, heavily marketed and readily available (Moore & Rideout 2007; Popkin, 2001; Ustjanauskas, Harris, & Schwartz 2013). This has also contributed to increased away-from-home food intake and eating outside traditional meal structures (Warde, 1999). This shift, which has been coined the “nutrition transition” (Popkin, 2001), has been facilitated by changing social roles and norms including more women working outside the home, time scarcity, decreased family meals, and fewer opportunities to learn basic food skills in school and at home (Agriculture and Agri-Food Canada, 2007; Slater, 2012; 2013; Smith, 2009; Smith, & De Zwart, 2010; Pronovost, 2007; Zayak-Reynolds, 2004). As a result, there is concern that people are becoming increasingly “de-skilled” regarding fundamental food planning and preparation skills, and nutrition knowledge, in increasingly complex foodscapes (Lang & Caraher, 2001; Jaffe & Gertler, 2006; Scrinis, 2007).

The concept of “food literacy” has emerged as a possible framework and promising approach to “re-skill” people with necessary and relevant food related knowledge, skills,

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attitudes and values. Although definitions vary, Vidgen & Gallegos (2014) define food literacy as “a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake”, as well as, “the scaffolding that empowers individuals, households, communities or nations to protect diet quality through change and support dietary resilience over time” (p. 54).

In order to effectively address these multi-faceted issues highlighted above, it is essential to understand how young adults navigate their food environments and cope with corresponding challenges. Young adults’ dietary habits are among the poorest of all age groups, with high rates of fast-food and soft drink consumption and low rates of adherence to national recommendations for fruit and vegetable intake (Cook & Friday, 2005; Nelson et al., 2008; Nielson & Popkin, 2001; Paeratakul & Ferdinand, 2003; Pelletier & Laksa, 2012). Additionally, some food habits developed by young adults are often associated with a poorer diet quality including: irregular meal patterns, meal skipping and frequent snacking (Al-Rethaiaa et al., 2010; Kremmyda et al., 2008; Satalic et al., 2007), and frequent consumption of commercially prepared meals, such as takeaway food, pre-packaged or restaurant meals (Burns et al., 2002; French et al., 2001; Nicklas et al., 1998).

Using a qualitative, grounded theory methodology, this study explored the complexities of acquiring and utilizing food literacy, from the perspective of young Canadian adults who have recently transitioned to independent living. The results of this study will be used to identify how food and nutrition education can be better developed in order to effectively equip young people to manage their food and promote health and well-being.

METHODS

Study Design

This qualitative study used grounded theory methods to explore the concept of food literacy as it relates to overall well-being from the perspective and experiences of young Canadian adults who recently transitioned to independent living. Qualitative research is inductive and focused on the quality or nature of human experiences and seeks to explain phenomena (actions, decisions, beliefs, values) from the perspective of individuals (Draper, 2004). Grounded theory seeks to construct theory about issues of importance in peoples' lives (Glaser, 1978; Glaser & Strauss, 1976; Strauss & Corbin, 1998) and is suitable for the investigation of complex multifaceted phenomena, such as food literacy and its relationship to well-being.

Participants

The population of interest for this study was students from two universities in a mid-sized Canadian city. Potential participants had to meet the following inclusion criteria: (a) between 18-25 years old; (b) responsible for feeding themselves; (c) have transitioned to independent living within the last two years and (d) be Canadian citizens. Exclusion criteria included: (a) from the department of Human Nutritional Sciences in Human Ecology; (b) live at home with parents or caregivers; (c) be married or (d) have dependent children.

Purposive and theoretical sampling techniques were used to recruit eligible participants (Ritchie & Lewis, 2013; Chamaz, 2006). Participants were primarily recruited via posters advertising the study in various buildings at the University of Manitoba.

Data Collection

Participants were interviewed individually in person in a private room. A semi-structured interview guide was used that was pilot tested on two individuals from the population of interest. Prior to the interviews, participants completed a brief questionnaire. The purpose of the questionnaire was to collect demographic information and to ensure all inclusion/exclusion criteria were adhered to. Interviews conducted took approximately 30-45 minutes. Sample interview questions are as follows: (a) Where did you learn about food from, such as certain skills or eating habits? (b) Do you eat differently now that you have the main responsibility for your own food? (c) What feelings do you associate with food?

All interviews were conducted by the primary author and digitally recorded. Interviews were transcribed verbatim and replayed whilst re-reading the transcribed interviews for accuracy. Immediately after each interview was conducted, the primary researcher took detailed field notes (electronically) regarding general thoughts, assumptions and behaviour throughout the interview.

Data Analysis

Data analysis began during the transcription of interviews in accordance with grounded theory methods in which data collection and analysis occur simultaneously. This study used the constant comparative method to analyze the data which involves (a) comparing different people based on views, situations, actions, accounts and experiences, (b) comparing data from the same individuals with themselves at different points in time, (c) comparing incident with incident, (d) comparing data with category, and (e) comparing a category with other categories (Charmaz, 1983, 1985; Glaser, 1978, 1992).

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To begin the coding process, the researcher conducted open coding, which is the process of assigning labels, or codes, to data for the purpose of identifying categories (Charmaz, 2006). NVivo9 software was used during this coding process which began during line by line reading of the interview transcripts. These initial codes/categories guided subsequent interviews and analysis. First level codes were ranked to reveal those coded most frequently, and those coded for the majority of participants. These were used to construct more theoretical categories of focus. Focused coding which is directive, selective and conceptual, was used to synthesize and understand the main themes (Charmaz, 2006). Throughout this process, new cases were compared with existing cases, as well as comparison across categories and themes.

Throughout the coding process, concept maps or diagrams were developed for each participant. Individual diagrams facilitated the constant comparison method by clearly being able to compare participant by participant based on similarities and differences. For example, it enabled the researcher to compare participants based on defining and influential characteristics, such as “interest in cooking”. This allowed the researcher to see what other factors were associated with this characteristic and how it shaped food choices and relationships.

Ethics

This research study was approved by the Joint-Faculty Research Board of Ethical Review at the University of Manitoba. Informed voluntary consent was obtained from all participants prior to their involvement in the study.

RESULTS

The following major themes emerged which reflect challenges and opportunities participants experienced while transitioning to independent living, in regard to acquiring and utilizing food literacy. Study participants were asked questions regarding food and nutrition which are further theorized in the discussion section in order to further conceptualize food literacy. These themes illustrate the complex nature of the development and utilization of food related knowledge and skills. These were inter-twined with associated values, attitudes and relationships with food:

- I. Food Learning & Experiences
- II. Competing Priorities & Interests
- III. Complex Food Relationships

Early stages of food learning and experiences, primarily from parents, were influential in shaping individuals' food related knowledge, skills, attitudes and values. Additionally, participants' knowledge of food and nutrition and desire for health and well-being conflicted with the realities of their perceived time constrained lives as students and individual interests surrounding food and nutrition. Finally, interconnections between levels/aspects of food literacy, complex food environments, and competing priorities and interests, in turn impacted and shaped complex food relationships.

Food Learning & Experiences

The primary precursor to the development of food literacy was food-related learning and experiences. Prior to transitioning to independent living, food learning and experiences occurred primarily through the home environment and school environment (formal education). Life experiences (paid employment, media, self-learning, and travel) were also a source of learning for some but to a lesser degree, and typically occurred after participants had transitioned to

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independent living. Therefore, for the purpose of this paper the themes of home and school environment will be discussed in greater detail.

Home Environment

Participation in Food Related Activities

Overall, the majority of participants described having minimal hands on participation in food preparation, meal planning, grocery shopping, and other food related activities when growing up. Rather, food-related learning they obtained occurred primarily through *observation* of their parents' food habits. Although participants did not provide explanations for this, possible reasons for this are elaborated on in the following section: "Parents' Influences".

"Like my mom would always cook so I'd see it but I never would do it on my own."

"Once in awhile I helped with grocery shopping, I didn't really help with the meals too often. Like once in awhile I made them dinner like French omelettes or something or I'd help my Dad flip steaks or whatever when he was barbequing them, but not really."

Three participants described having greater hands on participation in the process of preparing meals, and were given more significant responsibilities by their parents.

"I learned a lot from my mom, I cooked a lot at home when we were younger because we were four of us. So, we all kind of helped out with stuff like that."

This participant had acquired a high level of food literacy while in her parents' home and continued to utilize these skills when she lived independently. This young woman explained that she continued with similar food habits, regarding preparation of meals, after transitioning to independent living. Additionally, she implied that this is not standard practice for her peers.

"...me and my sister lived together our first year in university and every once in awhile you'd have your friends over for dinner and they'd come over and they'd

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be like 'oh my god, you cook like this everyday!?' And we're like 'oh this is how we grew up having a good solid dinner with your meat and your vegetables and your potatoes or rice'."

In contrast, two students who actively participated in food activities at home described not utilizing these skills once they transitioned to independent living. One of these participants explained that he is aware of the poor nutritional quality of his current food choices, primarily fast food and very low fruits and vegetables, but chooses not to use the food and nutrition skills and knowledge acquired from his parents. This was due to a lack of interest in food and eating, as well as the absence of health concerns or weight gain.

"As a kid we used to have to plan one meal a week for the family. So we had to plan a starch, a vegetable, a protein and then we would usually help cook that meal as well... I know how to cook. I think I'm pretty good at it. I just don't... I know how to, I know what is good for me, I just don't care a lot of the time."

The other student described cooking entire meals from whole ingredients for her family from the age of eight years old. When this young woman initially transitioned to independent living she chose processed convenience food products, which she attributed to a lack of interest in cooking at this time. However, she eventually began planning and preparing her meals from scratch for health and economical reasons.

"...when I first moved to the city because I had this new found freedom and I was, I didn't want to cook, I didn't want to waste my time cooking... I guess I like obviously bought a lot of prepared stuff and then when I moved and was on my own in my own apartment I still at the beginning was kind of just buying lots of prepared stuff because I didn't want to waste the time cooking because I mean it takes time to prepare a meal and so I didn't, at first. I just bought a lot of prepared stuff but then I started to go back to making all my meals myself."

Parents' Influences

Prior to independent living, participants identified the home environment as the main domain in which they learned about food and nutrition. Parents, mainly mothers, were the

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primary source of food and nutrition education. One participant identified her grandparents as a source of learning and one participant identified her grandmother as a significant source of learning. It was common for participants to compare and relate their current food practices and choices to how they were raised.

“...my mom’s super healthy, that’s kind of just how I’ve been raised so it’s normal for me.”

“...I think it has a lot to do with your family environment and how you’re raised so you actually have supper, you know, meat and potatoes. My grandparents are very traditional like that too and I always spent my summers with them so you kind of just grow up ‘okay, so you don’t have Kraft Dinner every night’.”

Seven participants explicitly stated that their parents made food choices they considered to be unhealthy. Participants identified that this was primarily due to: poor food skills, busy family schedules, and/or negative attitudes around cooking. As a result of their parental food and nutrition knowledge, skills, and attitudes, these participants described increased consumption of processed convenience and takeout foods. Some of these participants were interested in healthy eating after transitioning to independent living and did not equate their current food skills, knowledge and practices to what they learned from their parents while living at home. A participant explained that he did not learn about nutrition and healthy food habits from his parents due to their lack of nutritious food choices.

“No. My family cooks really bad so, well not bad, less healthy.”

Another young adult explained that he was eager to gain independence with regard to food choices once he moved out of his parents’ home due to unhealthy food habits of his parents.

“I was actually pretty excited to get out of the house and stop eating the food that my parents were buying. It’s like okay, I’m going grocery shopping, this is my list, this is what I’m going to eat in a week and I actually remember like that first year,

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kind of just jumped right into it, like this is awesome, I actually get to cook my own food and eat what I want to eat.”

Food and nutrition knowledge and skills that were taught by parents varied in depth and were unique for each participant. Overall, participants most commonly described learning basic skills related to food preparation, meal planning, and grocery shopping, as well as basic nutrition information such as healthy foods and portions, and the four food groups. Again, for the majority of participants food learning occurred through observation of parents rather than through hands on participation.

“...my mom is a nurse and she, I guess by having kids, she was probably aware of it more, but once she had us kids she totally picked up on healthy eating and that’s important to her and she taught us the Canada Food Guide and tried to plan meals based on that so as we were growing up we were very aware of the different food groups. So I guess that’s kind of the knowledge of thinking about eating healthy and a tool to use to eating healthy that she taught us.”

The types of food learning that occurred frequently related to parent or mothers’ food and nutrition knowledge and skills. A student, whose parents own a farm, demonstrated a high level of food skills and knowledge themselves and described learning about agriculture in addition to basic food and nutrition knowledge and skills. Education on agriculture from parents was unique to this participant.

“I grew up on a farm also so we always had a big garden in the summer. My dad raises beef and sheep. So, I had a lot of education I guess. We used grass fed meat and beef so it was kind of always in my house, education on quality food and healthy food, just coming from an agricultural background.”

Participants’ food learning extended beyond specific skills and knowledge and encompassed various values and attitudes. Again, these were primarily transferred from mothers and affected participants in varying ways prior to and after transitioning to independent living. A young woman attributed her current attitudes around cooking in relation to her mother’s. In this

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case the participants' mother perceived cooking to be a lot of work and stressful, and thereby chose processed convenience foods frequently.

"I guess I feel like, cause my mom always complained how much work, like for me thinking of cooking I automatically think that's a lot of work but really I don't think it is. It's just cause of how I was raised."

This participant, who currently does not participate in multi-step food preparation from whole ingredients, elaborated on why her mother did not cook for the family.

"...she was working and taking care of three kids. She felt too stressed to be able to cook because all of us didn't agree on what we liked to eat. So, she would try to cook and then someone wouldn't like it so she would have to make something else. So she decided that everyone kind of make their own thing after a while. So, ya we had a lot of quick stuff."

Parent relationships influenced food habits and patterns while participants were living in their family home. One participant explained that her parents fought a lot and therefore it was better if they didn't have family meals together.

"Well, cause at the time when my parents were together; it was like they would just be fighting all the time. So, it was probably best that we didn't eat together".

This same participant also attributed her disordered eating habits (obsession around calories and weight) in part to her relationship with her parents.

"I think it was I wanted control of my life and my parents were fighting all the time. It was that and that was the only thing that made me feel good kind of thing."

Food & Nurturing

Several participants implicitly described their mothers nurturing them through food by feeding them, which was independent of whether the food was considered healthy or not. One participant described the homemade pasta sauce he ate the day before his interview.

"Yeah it was some homemade stuff that I got from my mom cause I went out for the weekend and brought some back."

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However, in several cases, participants expressed their mothers nurturing or providing acts of love with foods considered to be unhealthy. For example, a participant described the “home cooked” meals his mother made for him growing up, which are still his preferred meals today, despite the lack of his mothers’ complex, multi-step food preparation skills or traditionally recognized “cooking”.

“My mom is like a grilled cheese, rice crispie square kind of person. Like it wasn’t elaborate home cooked meals it was just chicken fingers and honey dill which now those are my favorite things. Still like you get those home cooked meals, to me its chicken fingers and tator tots. So it’s just kind of the way I operate now.”

A young woman implied the significance of preparing meals as an act of love and nurturing when she defended her parents for using takeout and convenience foods as a way to cope with busy schedules or time constraints.

“Well we ate good meals and everything it was just that my parents didn’t have the greatest eating habits. They would get home at 9 o’clock and ‘oh what are we going to have for supper’, ‘well let’s just order in a pizza’.”

In this case, the participant implied that the act of feeding is separate from the act of “healthy cooking”. In response to whether or not her parents cooked, she said:

“They cooked all the time. I mean I’m giving them a really bad image here. It’s not like they didn’t cook for us but it’s just like they kind of took the easy route when they could. But they would make us meals all the time.”

Another participant explained that he eats healthier now that he lives on his own because his mother gave him snack foods considered to be unhealthy.

“I ate lot more junk food when I was living with my mom because she bought it for me. Like I enjoy it but if it was my choice I wouldn’t have bought it. So, I kind of ate a lot more candy and chips because she liked to give me snacks and chocolaty granola bars and stuff and yeah pop like we usually had a drawer full of pop in the fridge.”

School Environment: Home Economics Food and Nutrition Education

The majority of participants took at least one Home Economics Food and Nutrition (HEFN) class through their formal (K-12) education. Overall, participants did not value this education and did not feel it prepared them to manage food-related activities once they transitioned to independent living. In response to the question of whether or not the HEFN education received facilitated management of food, a young woman stated:

“It taught me how to make a few dishes but other than that I wouldn’t say so.”

Reasons for discontentment with HEFN education varied and were dependent on the individual. Most commonly, participants expressed issues with the curriculum; in particular participants explained that HEFN education was *only* about cooking and included limited to no nutrition education. When participants discussed learning about food preparation or cooking in school they implied that this education was not valuable. However, this contradicted agreement amongst participants that food preparation skills were important to have for independent living and health, which was declared in other parts of their interviews.

“...they didn’t offer home ec...until you were in grade 10 and then we didn’t really learn much nutrition or anything. We just learned how to cook recipes.”

“...there was cooking in class but you don’t learn a lot about what you need to know. It’s more like a general food experiment class and it’s not geared towards healthy eating. It’s just geared toward making food that tastes good.”

Although less common, other aspects of the curriculum that participants addressed as inadequate included: limited to no education on food systems, grocery planning and shopping, portion control, and strategies to avoid food wastage.

“It was more about making food I guess, I don’t recall too much on nutrition or like getting food, like didn’t learn anything like how farmers grew potatoes, or anything like that. So not really I guess.”

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“...they don’t teach you enough about when you first move out. Grocery shopping’s really hard to plan what you want to buy. They don’t teach you enough about that. Like portion control, like what am I going to eat for the next few days so you’re not wasting stuff.”

Some students stated that the curriculum was too basic and therefore did not appear to effectively engage students who perceived their food skills to be above what was being taught.

“To be honest, I found a lot of it common sense because I can read recipes really easily.”

“I did take some in high school but I remember I thought it was stupid because I knew everything already; like you’re going to show me how to cook noodles?”

In contrast, one student chose not to take HEFN due to a lack of confidence in her cooking abilities.

“I chose not to just because I burn a lot of stuff.”

Some participants explicitly stated that at this stage of their lives they lacked interest in food and nutrition related education.

“I did take cooking but it was just for eating the food. I didn’t really think about the health outcomes or anything, strictly for the eating and health yeah but I did not pay attention.”

“When you’re in high school it’s like ‘yeah, free lunch before lunch.’”

However, in hindsight three participants stated that they could see the importance and value of acquiring food preparation skills during their formal education years.

“I think if there’s a little more transparency, sort of acknowledging that kids might not be that interested but having that option there might help with I guess forming a self-competency later on.”

Competing Priorities & Interests

Participants perceived that their desire to eat healthy often collided with the reality of time constraints. Competing priorities and interests, such as school and work commitments, often

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acted as a barrier to healthy eating by increasing reliance on convenience foods/meals and decreasing time spent cooking meals from whole ingredients.

Time Constrained Lives

The majority of participants perceived their lives to be time constrained, and struggled to balance school work, paid employment and other food-related activities. In relation to time constraints, participants commonly expressed lack of time management and planning skills to facilitate activities such as grocery shopping, planning meals in advance and cooking.

“... a few months ago I just switched living arrangements and also my work and my school schedule was kind of complex so I didn't have much time to prepare meals. I'd have to leave in the morning and be in school all day and then I have an hour and then I'd have to go to work till like after 7. So, and then it takes like an hour to make the meals. So, I was really burnt out, so that was the difficulty, just the time. I didn't really plan it out very well.”

Another participant, despite having cooking skills, identified meal planning as her most significant challenge, which contributed to increased consumption of foods requiring little preparation and decreased variety of foods. These foods included convenience items such as Kraft Dinner.

“Probably just the meal planning itself, like I have no idea what I'm going to eat for supper tonight...It's just thinking of variety and planning ahead of what to make because then I don't just want to like 'oh, I don't have any time, I didn't think of anything, so I'll just have pasta'. I don't just want to have Kraft Dinner every night. I guess that's the biggest part.”

Several participants expressed a desire to have learned more of these particular planning and time management skills.

“I wish I learned more about time management and how to deal with work and school and cooking and stuff and just how to plan. But I just kind of went with the flow.”

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One young man described his diet as consisting primarily of fast food and very low fruits and vegetables. He explicitly attributed his poor eating habits to being a student and the associated time demands. In the process of explaining this, he acknowledged that there will always be time constraints and perhaps this mode of rationalizing his current eating patterns is not justified.

“I think that’s kind of how I viewed it up until now is that this is temporary and I’ll change it at some point. Once I’m done school I think is sort of the obstacle that’s in my mind like ‘oh once I’m done school maybe I’ll have extra time’. But when you put it like that that kind of sounds foolish. Cause there’s always going to be something. There’s always some reason not to.”

Food & Meal Habits

Perceived time constraints impacted participants’ food choices and meal patterns in several ways. The majority of participants coped with their busy lives by utilizing convenience foods due to their time efficient and easy nature.

“Finding the time to cook meals because we both had to work full time jobs and whatever is fast and easy to cook that’s what we usually did...Kraft dinner, noodles, anything like that.”

“For lunch, it’s usually whatever I can make really fast because I’m really busy so sometimes I’ll make like Sidekicks or something, like microwave vegetables or if I’ve gone grocery shopping I’ll make a salad or soup [canned].”

In turn, this also contributed to decreased frequency of preparation of meals from whole and fresh ingredients, as well as a desire to do so.

“My life is pretty fast paced so sometimes you just want to stop in for 20 minutes, eat and then leave as opposed to making sure you have all the stuff, cooking half an hour or 40 minutes, and then eating it.”

“I know that people don’t have the time to make burgers at home or soup from scratch because I know how much time it takes to make a broth or care that much. But Campbell’s tomato soup, like I don’t think that’s good for me or anyone really.”

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Several participants coped with time constraints by skipping meals altogether. The following quotations are from two students who self-identified high levels of food preparation skills, however other priorities took precedence over eating and food related activities.

“My schedule is kind of all over the place so some days I have breakfast, some days I don’t. Same thing with dinner, some days I do, some days I don’t.”

“No, because we hadn’t done groceries in a while and I’ve been super busy with my thesis, I kind of put off eating, so it’s like 10 at night and I will realize that ‘Oh, I didn’t eat today’.”

In some cases, meals were replaced by portable snack foods that could be eaten on the go. One young woman who perceived her schedule to be very busy described eating on the go, typically convenience snack foods, as she went from one responsibility to the next. Although this participant perceived these foods to be unhealthy, they facilitated eating within her busy schedule.

“I think I’m eating a lot of sweets actually. Like cookies and granola bars and things like that. Like they’re more like packaged and they’re just easy snacks. And I know it’s not healthy but it’s just something quick to grab and go.”

Some participants identified the negative effects of time constraints on their ability to sit down and have meals with other people.

“...my family we always got around the dinner table and you always spent time with your family. But that never like, like we didn’t sit down, we didn’t talk, we would just eat and then go because we were always trying to get stuff done and so just the transition from not spending time with family during family meal time to just rushing around was not really a good transformation.”

Although less common, some participants prioritized food in their lives and were able to maintain healthy food habits in the midst of work/school/life balance. Most commonly, these were participants who enjoyed the process of cooking and preparing meals. Several participants attributed their interest in food and health to their enjoyment of cooking.

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“The whole me liking cooking I felt, I don’t know, it’s nice to make it healthy instead of just sugar fat filled and salty dinner.”

“Yes, I like to cook so I do a lot of cooking at home.”

Additionally, participants who prioritized preparing food from whole ingredients coped with time constraints by utilizing their ability to make large batches of soups or stews to facilitate leftovers. For these participants, leftovers allowed for convenience and time efficiency without the reliance on processed convenience foods or meals.

“When I can I usually plan like three meals a week maybe I’ll kind of have an idea what I want for the week and the rest is kind of using up leftovers.”

“I usually make a big pot of whatever it is. Like lentils with chilli and then I just throw it in the freezer.”

Complex Food Relationships

Participants’ relationships with food were highly variable and complex and fell along a wide spectrum from positive to negative. In this context, “food relationships” refers to emotional connections and feelings participants had toward food and eating. Participants self-identified different aspects of food in their lives as having positive or negative emotions/effects.

Positive Relationships

Overall, most participants described food in their lives or their relationships with food as being positive. Most commonly, this was due to their enjoyment of eating.

“I like to eat so it makes me happy when I’m eating for sure. So that’s definitely a pick me up. I guess I just like to eat, so that’s pretty much it.”

Participants who enjoyed cooking were more likely to have healthy and positive food relationships compared to those who did not enjoy cooking. These participants positively associated cooking with health, connectedness, pleasure, and self-satisfaction.

“Just feeling good, feeling healthy too like when you cook that stuff you feel like

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you're doing good for yourself and happier than eating something processed and bad for you, so positive."

"Well, I love food. I love eating, I love cooking. For me it's something that is almost meditative. But just a way I can think about my day and think about the food I'm going to eat and think about the people that I'm going to eat with. Things like that. So for me it's an important part of my day. When I think of food... Yeah it's exciting, there's so many possibilities, there's so many different foods and different ways and different cultures. So it really interests me, learning different ways of cooking and things like that."

Two participants who did not enjoy cooking for themselves, found pleasure and enjoyment in cooking for others.

"...if I go home for a weekend and I have to cook for my boyfriend and the billets and I know, if I'm going to make a lasagna, I get excited because I know what I'm going to make and it's good and when they're eating I'm like is it good?! Do you like it?! Did I do good!?! Okay good. So I do get excited to prepare meals and everything and provide for my little family but eating food, you gotta do it, but I like it."

Three participants enjoyed sharing food with others in social situations and believed this to be a healthy way of eating as well as contributing positively to their relationship with food. Additionally, participants who enjoyed the social aspects of food and eating were more likely to participate in and enjoy cooking.

"...well food, it's always positive to me I think and because I don't live alone and because I go out with friends and everything, so food is definitely a social thing. And I like that because it brings people together; it's good. But also the process of cooking is also fun when you cook with someone else."

Negative Relationships

Four participants described disordered eating habits or self-identified eating disorders, which not only impacted food choices but also created feelings of fear, guilt, and obsession around food. Binge eating was an issue for these participants. One young woman attributed her

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binge eating to her low emotional state after moving to a new country where the food culture was much different to her home environment.

“I think what mostly played a role in there is that I moved there, and it was really hard the first few months, I had a really hard time. So, I had a lot of binge eating episodes. I was so down so I would just go and get some junk food and eat it all, so much.”

This young woman was raised in a family home where healthy food was the norm and highly valued by her parents.

Another participant who experienced regular binge eating episodes described his relationship with food as an addiction. This participant would often not eat until 6:00 pm and then would eat processed convenience foods and meals until he would be physically sick and have to purge.

“When I’m food sick, like in the morning, I’ll always say, it’s like a hangover, ‘oh I’m never gonna do that again’, ‘why do I do this to myself?’ ‘why did I eat three toquitos?’ for some reason and you say you’re never going to do it again but then later you’re in Sev and it’s 2:30 and you’re not gonna get, hey what else are you going to eat, you feel hungry, you have that taste in your mouth already but you don’t think about the consequences. It’s like an addiction, like any other.”

This same participant further explained his perceived dependency on convenience foods, high in cheese and sugar, as both a burden and necessity. Additionally, he felt that due to his limited income he could not enjoy food like other members of society who have greater financial resources and therefore can afford perceived higher quality food that is superior in taste.

“I feel like it causes more problems to me than helping, it’s more of a burden to eat to me right now. Like I’m not going to the Keg and tasting this buttery steak that’s making my heart melt. I’m just eating the lowest common denominator of foods. So I’m not in the position where I can enjoy food like other members of society can. Like at Segovia you have food that you’re just like ‘oh, this tastes so good’, like I’m just eating because I’m used to that taste of cheese or sugar or cinnamon or whatever. It’s more a necessity and a burden than it is a past time or a joy or a hobby.”

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Another participant attributed her self-identified eating disorder (bulimia) and binge eating to perceived pressure to be perfect, which was coupled with a fear of gaining weight.

“...there were lots of outside issues I guess, there was pressure to be perfect and fear of gaining weight and fear of not like looking good or just I don’t know, there was lots of mixed, like it’s kind of confusing.”

When this young woman lived in her family home she would frequently prepare meals for her family from a very young age. However, due to a lack of interest in cooking when she first moved out of her parents’ home she consumed mostly pre-prepared processed convenience meals which negatively impacted her pre-existing eating disorder.

“When I moved out on my own and when I was getting all the prepared food, before I started getting the healthy food, I had left home with an eating disorder and it had been sort of okay like it had stopped for awhile and then when I moved out on my own, I had a really bad I guess relationship with food, like my eating disorder blew way out of proportion when I was eating all the prepared stuff.”

For one participant, her disordered eating patterns stemmed from an obsession around calories and nutrient avoidance in order to lose weight. Although this participant was highly interested in nutrition and calories, she lacked basic food and nutrition knowledge and skills (from researcher’s perspective).

“I kind of got obsessed with it like before. I kind of have a love, hate relationship with food. Ya, it’s kind of bad. I am trying to eat for energy you know. Not try to, I don’t like measuring, I used to measure everything and kind of like, kind of made me a bit sick.”

A few participants associated the act of eating alone, as opposed to eating with others, with negative feelings. One participant perceived his behaviour of eating alone to be unhealthy because no one is there to “judge” his food choices. This participant also explained that it would affect him negatively if someone was to judge his eating habits, which are typically nutrient poor.

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“I think people like me that eat alone probably eat worse because I don’t know there’s nobody to judge you. You don’t really reflect anybody else’s habits or choices in what you’re eating.”

Some students described negative feelings such as laziness and dissatisfaction when they eat convenience foods. A young man explained the difference in how he felt when he made a “microwaved” meal compared to a home cooked meal from whole ingredients.

“Whenever I microwaved anything and ate it I feel like it just wasn’t the best for me most likely and also, makes you feel kind of lazy and there’s no satisfaction out of it. When you make your own meal and it tastes good and looks nice it just, there’s a little bit of self satisfaction for sure.”

Another area of distress for some participants was making food choices in the vast array of food products and trying to keep up with the latest “superfood” trends. Feelings of frustration, confusion, and overwhelm were associated with deciphering the often conflicting and numerous nutrition messages given by the food industry and health professionals.

“...it’s really confusing like you hear foods that help you combat depression and like you know different, or reduce your risk of heart disease and stuff. It’s like so much information especially for someone like who doesn’t know much about it. It would be nice to have it simple and stuff and like on food packages a lot of them say like this is like health tech or something like on orange juice. Then like people say orange juice is really bad, because it has so much sugar. Yeah it’s just confusing.”

Two participants who strived to maintain healthy eating habits described facing healthy eating stigmas and stereotypes from their peers in social settings. In these situations they felt pressure to make perceived unhealthy food choices.

“I hate when there’s peer pressure. It sounds ridiculous but it does happen. Say you go to a pub or something after work or after a night out and everyone is drinking and having nachos and you’re sitting there with your water because you don’t really want to drink alcohol and ‘why aren’t you ordering anything?’. You may be hungry but you know you’re not going to, kind of stigmatizes you.”

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Neutral Relationships

Although less common, a few participants took a “neutral” stance and did not express positive or negative feelings toward food and eating. One participant self-identified his relationship with food as neutral while acknowledging differing views and relationships people have with food.

“Well I don’t know, I’m kind of neutral because you know there’s one side of it, food as fuel and that’s it and then the other side I guess can be sensual, or whatever, like trying new things out and experiencing the world differently. You know like Folklorama, you know, ‘try different cultures’ and stuff like that. But I guess overall, I’m neutral.”

Some participants stated that the main role of food and eating in their lives was to survive.

“Well it’s just you got to eat to live so it’s whatever.”

Another participant explained that he chose foods that “fill” him up as opposed to selecting foods based on health or enjoyment.

“...usually because again for the whole breakfast scenario instead of spending unnecessary money on food that won’t fill me up it’s just easier to plan ahead and eat that.”

DISCUSSION

Study results were complex but some dominant trends emerged. Results demonstrated the complexities and challenges that exist in the development and utilization of food literacy. Young adults in this study experienced significant challenges with respect to healthy eating. The main reasons for these challenges were due to a lack of food and nutrition education prior to independent living through home and school environments, time constrained lives, lack of interest in food and health, and complex food relationships.

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In this section food literacy refers to the range of food related knowledge, skills, attitudes and values identified by participants, which were further conceptualized by the researcher of this study. This valuable contribution to food and nutrition literature provides a rich understanding of the food experiences of young adults newly transitioning to independence.

Developing Food Literacy

Food learning and experiences were the primary precursor to the development of food literacy. Overall, the food learning experienced by participants while growing up was influential in shaping food literacy and food relationships after transitioning to independent living. The degree of food literacy developed by participants prior to living independently ranged from low to high and commonly correlated to their parents' food knowledge, skills, attitudes and values. Home Economics Food and Nutrition education was a lesser source of food learning for participants prior to transitioning to independent living but impacted food literacy very minimally.

Learning about Food and Nutrition: Parents & Mothers

The majority of participants in this study identified parents, mainly mothers, as the central way in which they learned about food prior to transitioning to independent living and strongly related current food practices of themselves and of their peers to how they were raised. Overall, there were limited hands on participation in food preparation, meal planning, grocery shopping, and other food related activities when growing up. Limited home-based food and nutrition education is not unexpected as everyday work and chaotic family schedules provide less time for provision and preparation of meals, and in turn limits the ability of children to visit grocery stores with parents or help with food preparation (Lichtenstein & Ludwig, 2010). This

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was the case for the majority of study participants as most food learning occurred through observation of parents' food habits.

These results are consistent with the existing body of literature which raises concern that there is less home-based food and nutrition mentoring occurring, causing current and subsequent generations to become increasingly “deskilled” regarding fundamental food preparation and planning skills, and dependent on mass-produced convenience and fast foods (Beagan, Chapman, D’Sylva, & Bassett., 2008; Höijer, Hjalmskog, & Fjellström, 2011; Larson, Perry, Story, & Neumark-Sztainer, 2006; Vidgen & Gallegos, 2011, 2012). Almost half of participants explicitly stated that their parents made food choices considered to be unhealthy (processed convenience meals and snack foods, and take-out) due to poor cooking skills, busy family schedules, and/or negative attitudes around cooking.

Participants primarily identified their mothers as translating food and nutrition education to them. It is well established that despite increased participation in domestic food work by men (Turcotte, 2007), women are still responsible for the majority of food related tasks such as shopping and cooking (Beardsworth, Bryman & Keil, 2007; Cohen, 2004; Flagg, Sen, Kilgore, & Locher, 2014; Marshall, 2006), while often balancing paid employment. Seventy percent of women worked at paid employment in 1986, which rose to 81% by 2005 (Marshall, 2006). This is not to blame women or deem them responsible for all food related work within their families, but to shed light on why these results were possibly found.

Food and feeding create strong emotional ties between family members, especially love, and in particular maternal and wifely love (Lupton, 1996; Mennell, 1996). This was evident in the results of this study; however the foods used to prepare family meals are considerably

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different than in past generations. In several cases, participants described their mothers feeding and nurturing them using foods considered to be unhealthy, such as sugary snack foods, processed convenience items and/or takeout food. Unfortunately, these foods are typically nutrient poor, energy dense, and heavily marketed and readily provided by a corporate food system that strategically advertises and brands to mothers (Nestle, 2002; Warde, 1999).

In essence, modern food environments have re-defined the meaning of “home cooking” and have enabled women to feed their families efficiently while balancing paid employment and other responsibilities. The concept of cooking has changed, as more often a combination of processed foods assembled and heated together can constitute as a home cooked meal (Engler-Stringer, 2010). On some fronts this may be viewed as a sign of progression of the industrial food system; however, there is also cause for health concerns due to the poor nutritional quality of these processed convenience foods, which are described in more detail later on in this section.

Conversely, some participants described acquiring a high level of food literacy and more frequent hands-on participation in food/meal planning and preparation. Laska and colleagues (2011) found that early in-home food experiences seemed to have a positive impact on food skills, as study subjects who enjoyed cooking in their twenties were significantly more likely to have been engaged in food preparation activities as adolescents and emerging adults (ages 19–23 years). They were also more likely to cook meals with vegetables if they had engaged in food preparation as an adolescent. Similar findings and patterns were observed in some participants who had acquired high food literacy from their parents; however, some of these participants still predominately chose processed convenience and/or takeout foods while living independently. Reasons for this are elaborated further later on in the discussion section, but include, lack of interest in cooking and health and perceived time constraints.

Learning about Food and Nutrition: Home Economics Food and Nutrition

Schools have been highlighted as potential vehicles of change in light of current overweight and obesity rates and societal changes. As results from this study and other literature indicate, children are not necessarily being taught fundamental food skills and knowledge at home for various and complex reasons (Caraher and Lang, 1999; Jabs, et al., 2007; Slater et al., 2012; Slater, 2013). Recent statistics demonstrated that only 31 per cent of 18 to 29 year olds feel confident in the kitchen in comparison to 48 per cent of those 50 and older (Sobeys Inc., 2014). Additionally, Canadians are consuming increasing amounts of processed or prepared foods with only 18 per cent preparing at least one meal per day made from scratch or with basic ingredients (Sobeys Inc., 2014).

Home Economics Food & Nutrition (HEFN) education is traditionally where students (primarily girls) gain knowledge and applied experience in cooking and related activities. The majority of study participants took at least one term of HEFN class during their formal education years. Overall, students did not perceive this education received to be helpful with regard to preparing them for independent living and related food responsibilities. This may be partly due to outdated HEFN curriculum, which has not been updated in more than 20 years (Slater, 2013; Smith & de Zwart, 2010). Therefore, the curriculum may not reflect changes in nutrition knowledge and societal trends, as well as the learning needs of diverse students (Slater, 2013). Furthermore, if students are only taking HEFN education once during their formal education, this may not be enough exposure to be truly effective in developing food literate young adults. Although study participants acknowledged that they were disinterested in this subject at this stage of their lives, several students looking back could see the importance and value of

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acquiring these food skills during their formal education years. Also, participants felt that food preparation skills were important to have for health, indicating that this education is valuable to them now that they have had the experience of being on their own and dealing with food related challenges.

Significant challenges exist with regard to HEFN programming, including: HEFN education is undervalued; curriculum is outdated; wider food and nutrition landscape undermines HEFN education; and there has been a reduction in food and nutrition knowledge and skills in students over the past two decades (Lichtenstein & Ludwig, 2010; Slater, 2013). Several authors argue that if children and adolescents are not being taught fundamental food skills at home, because parents are too busy or lack skills themselves, that HEFN education should fill this gap (Lichtenstein & Ludwig, 2010; Fordyce-Voorham, 2011; Slater, 2013). It appears from this study and other literature that implementing mandatory HEFN education reflective of current food and nutrition knowledge, issues and contemporary lifestyles, would be a valuable and worthwhile undertaking to re-skill and prepare youth to effectively navigate the increasingly complex modern foodscape in a healthy way.

Utilizing Food Literacy

As previously stated, study participants transitioned to independent living with a wide range of food related knowledge, skills, attitudes and values. However, independent of participants perceived competencies around food, the majority of participants struggled at some point in their time of being independent with making healthy food choices. This observed disconnect between perceived food literacy and ability to utilize these skills and knowledge to

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make healthy food choices was due to a variety of complex reasons, including: time constraints, and complex food environments and relationships.

Time Constraints & Time Management Skills

Lack of time is the most commonly reported barrier to healthy eating among adults overall, including young adults (Greaney et al., 2009; Kearny & McElhone, 1999; Nelson, Kocos, Lytle & Perry, 2009). Therefore, it is not surprising that the majority of study participants identified that they have restricted time for preparing healthy, nutritious meals with few processed ingredients primarily due to busy schedules, balancing school and paid employment commitments. In order to cope with time constraints, participants typically utilized processed convenience foods at home or on the run, fast food, or skipped meals all together. In effect, perceived time constraints decreased the frequency and desire to prepare meals with multiple steps from fresh ingredients and reinforced their need and desire for foods/meals that are quick and easy to prepare and eat. This is consistent with current Canadian research which shows that the prevailing trend is the demand for products that take little or no time to prepare (Zafiriou, Pomboza, Landry, & Gould, 2005). Perceived time-constraints were compounded with an overall lack of time management skills commonly identified by participants.

These results are consistent with Pelletier & Laska (2012) and these food habits/behaviours are associated with less healthful dietary intake and excess weight gain (Larson, Nelson, Neumark-Sztainer, Story & Hannan, 2009; Duffy, Gordon-Larsen, Jacobs, Williams & Popkin, 2007). Further, time constrained trends are observed across the Canadian population in part due to increased workplace participation and increased workload, which has led to a shortage of time for daily activities (Turcotte, 2007). Canadians work on average 8.9

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hours per day at paid employment, an increase of one half hour per day from 1986 (Turcotte, 2007). This has led to fewer meals eaten at home and less time spent preparing meals (Turcotte, 2007). Therefore, time constraints experienced by students due to busy schedules is likely to persist into later adulthood and potentially increase once they enter into the workforce fulltime and possibly have family responsibilities with associated food tasks.

Some participants in this study, who reported having foundational food knowledge and skills, prioritized healthy food planning and preparation amongst their busy schedules. A high interest in and enjoyment of cooking and health seemed to facilitate prioritization of healthy food planning and preparation for these participants. Existing studies indicate that increased diet quality is associated with greater frequency of cooking and using more complex preparation steps (Larson, Perry, Story, & Neumark-Sztainer, 2006; Thorpe, Kestin, Riddell, Keast & McNaughton, 2013). As well, these participants were more likely to describe positive food relationships. This finding is a key distinction between participants who self-identified competency with regard to food skills but predominately chose processed convenience foods and/or takeout. This also illustrates that having basic food skills and knowledge may not be sufficient in current complex food environments.

However, cooking experiences and resultant skills typically preceded interest in cooking. Therefore, it is inferred that creating food learning opportunities prior to transitioning to independent living is critical to potentially pique interest in cooking which was associated with a variety of healthy food behaviours.

Food Environments & Health

Food practices described by participants are conflicting, reflecting desires for health and home prepared fresh foods as well as ease and convenience. The majority of participants described choosing processed convenience foods, perceived by them to be less healthy than multi-step food preparation from whole ingredients, in varying frequencies. Often these meals or snacks were eaten on the go or quickly as participants transitioned from one commitment to the next.

The food industry responds to the demands of consumers for quick and convenient food products through a large amount of food retail spaces with processed and ultra-processed, low nutrient and energy dense food commodities and sweetened beverages that are typically mass-produced and shelf-stable for long periods of time (Montiero, 2013). This surplus of convenience and ultra-processed foods is readily available at supermarkets, restaurants, vending machines and other retail venues (Glanz, Basil, Maibach, Goldberg, & Snyder, 1998) contributing to increased away-from-home food intake and eating outside traditional meal structures (Warde, 1999). A growing body of evidence suggests that observed obesity and overweight trends are primarily due to increased energy consumption from these types of food (Bleich, Cutler, Murray, & Adams, 2007; Slater et al., 2009; Swinburn, Jolley, Kremer, Salbe, & Ravussin, 2006). The shift from fundamental, whole food ingredients to processed and ultra-processed foods, coined the “nutrition transition” (Popkin, Adair, & Ng, 2012), has contributed substantially to the ways we eat and how food is viewed and recognized today. Countries undergoing the “nutrition transition” have uniformly experienced concurrent growth in obesity and diet-related chronic disease (Popkin, 2001; Popkin, 2002; Popkin & Gordon-Larsen, 2004; Popkin, Adair, & Ng, 2012).

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Market trend analyses have shown that the two categories experiencing some of the largest growth in the food sector are snack foods, including hot snacks, and frozen prepared meal entrees (Pierce, 2005; Research and Markets, 2007). Eighty percent of the Canadian population has diets that include more than 50% of ultra-processed products in terms of energy (Moubarac et al., 2013). These products tend to be energy-dense, high in refined starches, sugars, fats or salt, low in fibre and other essential nutrients, and have a heavy glycemic load, as well as are typically sold in large portions, formulated to be extremely palatable and habit-forming, and aggressively advertised and marketed (Monteiro, 2010; 2011; Moubarac, 2013). A dietary pattern high in salt, fat and sugar and low in fruits and vegetables is associated with a higher risk of overweight/obesity and related conditions (Bowman & Vinyard, 2004). The vast availability of these foods comprise our complex food environments which allow for quick and easy eating, however, they reinforce consumption of too many processed and ultra-processed convenience foods, and a decreased frequency of sit-down meals.

Evidence of how the availability of convenience foods affected the habits of several participants was illustrated by their self-identified or described disordered eating habits. Most commonly, these participants described “binge eating” various processed convenience foods and snacks, which appeared to negatively affect their physical (weight gain) and emotional (fear, guilt, obsession) health. Reasons for disordered food habits experienced by some participants were not due to a lack of food skills and knowledge, rather emotional causes. Furthermore, some participants identified the wide array of food products and conflicting nutrition/health messaging delivered through various sources (health professionals, media, etc.) to be a source of distress.

Research Implications

The results of this study suggest that significant challenges exist with regard to acquiring and utilizing food literacy, which appear to influence food choices and potentially health and well-being. As illustrated in this study, parents may not be transferring foundational food knowledge and skills to their children for various and complex reasons, which add to the existing concern that people are increasingly being “deskilled”.

These findings have significant implications for education interventions aimed at improving food literacy and reducing diet-related health concerns (obesity, disordered eating), in particular for children, adolescents and young adults. School-based food and nutrition education may be a logical area to enhance food literacy, through Home Economics Food and Nutrition education, but also social studies, sciences, etc. to address a wider notion of food literacy (environment, society, culture). This education is critical to challenging what is valued in our society, and deemed worthy of our time. Perhaps this education is also paramount in changing skills and attitudes around food preparation and cooking which appears to be a crucial aspect of food literacy and inter-connected with healthy food behaviours and relationships. Development of an agreed upon “food literacy curriculum” should be considered by experts in the related field.

Given the complex foodscapes inhabited by young adults in this study (and likely most Canadians), consideration must also be given to improving the healthfulness of food environments. It is clear that this is not an easy feat, but people are regularly subjected to food environments which by and large contradict healthy food choices and favour ease and convenience. To improve the food behaviours of young adults, audacious new strategies need to be explored; conceivably at the government level targeting food industry policies and practices.

Limitations

This study has several limitations that should be taken into consideration when interpreting the results. First, the study used a small sample size of Canadian university students who may not be representative of the wider population of young adults who are of different socio-economic, educational and cultural backgrounds. As such, participants in this study may have shared more similar food experiences and challenges in the context of being a university student. However, a wide range of food literacy was demonstrated across participants. As well various unique food experiences were described.

Secondly, the study did not quantitatively examine the food and dietary intake of study participants. Furthermore, the study did not have a quantitative measure for determining food literacy among participants. This limits the ability to draw conclusions about implications for the relationship between food literacy and health/well-being outcomes. However, the qualitative methods applied here revealed a rich understanding of food literacy levels among participants and the healthfulness of their overall dietary patterns.

Lastly, the study likely did not capture the full breadth of influences on the development and utilization of food literacy, which is highly complex due to individual (biological and psychological) and contextual factors. These influences will undoubtedly impact food learning, choices and relationships. All of which were taken into consideration when interpreting study results and drawing final conclusions/implications.

Despite these limitations this study served to advance the understanding of opportunities and challenges to acquiring/developing food literacy from the perceptions of young Canadian adults and put forth practical recommendations to possibly improve health and well-being.

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Future research is required to further explore the scope and boundaries of food literacy and to empirically measure components of food literacy. Finally, further work is needed to examine how to best translate food literacy through family, cultural, educational and private sector institutions.

CONCLUSION

There is “profound complexity of the ways in which individuals’ (*food*) practices are socially and culturally embedded, and emergent from a range of factors which include exposure to external influences, time and space, and a range of life-course transitions which might temporarily, or permanently, rupture existing patterns and behaviours” (Meah & Watson, 2011, p. 21). This was evident in the results of this study which illuminated the challenges that participants experienced with regard to acquiring and utilizing food literacy from the perceptions of Canadian young adults recently transitioning to independent living. It appears from this study that young adults may not be equipped with necessary food literacy, due to various complex reasons, to navigate current food environments in a healthy way. Possible solutions to these barriers are diverse and multifaceted, but perhaps food literacy can develop the necessary scaffolding for “self-efficacy, empowerment, and acquiring a sense of coherence and competencies regarding sensory, practical, theoretical and ethical fields” (Benn, 2014, p. 31) required for improving health and well-being in modern foodscapes.

CHAPTER 6

General Discussion

Summary

The objectives of this study were to (1) determine the knowledge and skills young adults perceive they require with respect to food, (2) understand how food literacy links to their understanding of what it means to live well (3) identify perceived enablers and barriers in relation to acquiring food related knowledge and skills, and (4) describe the food experiences of young adults as they transition to independent living. A qualitative, grounded theory approach was used to explore the concept of food literacy with 17 Canadian young adults attending university in Manitoba and who recently transitioned to independent living.

The results of this study have been presented as two related but independent research papers. The first paper (Chapter 4) addresses the first and second research objectives. This paper focuses on the results pertaining to knowledge and skills young adults perceived they required with respect to food as they transitioned to independent living. Broad components of food literacy identified by participants included knowledge and skills related to: food preparation and eating; food and nutrition knowledge; and planning and time management skills.

Overall, participants perceived basic food preparation skills as valuable to facilitate healthy food choices; however, these perceptions were independent of participants' food preparation frequency and abilities, which ranged from low to high. Participation in food preparation was dependent on a variety of factors, including: competencies, interest in cooking, time constraints and planning and time management skills. It was observed in this study that participants who had an interest in cooking coupled with food and nutrition knowledge/skills made healthier food choices and had overall healthier relationships with food. Some participants

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self-identified moderate to high levels of food skills but chose mostly processed or fast foods due to a lack of interest in food and health and/or a lack of health concerns (i.e., weight gain, disease).

In general, the young adults in this study expressed an interest in healthy eating and nutrition and participants were fairly confident in defining “healthy eating”; however this centred primarily on avoiding food and nutrients considered to be ‘unhealthy’. However, interest in nutrition and general healthy eating knowledge did not necessarily translate into healthy eating behaviours or avoidance of nutrients perceived to be unhealthy. This was in part due to competing priorities and interests and lack of food knowledge and skills (i.e., planning and time management); as well as demonstrated through food and nutrition confusion and contradictions expressed by participants. Commonly, participants described contradictions between perceived healthfulness of their diets compared to actual food choices articulated throughout their interviews. Also, participants expressed confusion around aspects of nutrition, including: calories, nutritional health claims, and conflicting nutrition messages from health professionals and media.

Despite interest in ‘healthy eating’, participants lacked cultural food knowledge, and had minimal understanding of or concern for food impacts on natural environment; further, social considerations given to food in participants’ lives were minimal. Rather, participants’ primary understanding of and/or interest in food were specific to nutrients and its relation to body weight or disease prevention. This is consistent with the “nutritionism” paradigm that dominates the medical-nutrition discourse in medicine, science and industry (Scrini, 2008). Participants who had more comprehensive understandings of food and well-being had unique learning experiences

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from family environments or higher education. Although other food skills and knowledge were acknowledged by participants, these were the dominant identified components.

The second paper (Chapter 5) primarily addresses the third research objective. This paper focuses on results pertaining to perceived enablers and barriers in relation to acquiring and utilizing food literacy. Young adults in this study experienced significant challenges with respect to healthy eating. Additionally, results from this study suggest that young adults may not be equipped with the necessary food and nutrition knowledge and skills to be well in current food environments. The main reasons for these challenges were due to a lack of food and nutrition education prior to independent living through home and school environments, competing priorities and interests, and complex food relationships.

Overall, early stages of food learning and experiences, primarily from mothers, were influential in shaping participants' food literacy. Some participants described more significant food related responsibilities while growing up; however, in general participants described minimal hands on participation in food preparation, meal planning, grocery shopping, and other food related activities. Rather, food-related learning occurred predominately through *observation* of their parents' food habits. Formal education (k-12) was a very minimal source of food and nutrition learning for participants and did not facilitate healthy management of food after participants transitioned to independent living.

Overall, study participants identified that they have restricted time for preparing healthy, nutritious meals with few processed ingredients primarily due to busy schedules, balancing school and paid employment commitments. In order to cope with time constraints, participants typically utilized processed convenience foods at home or on the run, fast food, or skipped meals all together. In effect, perceived time constraints decreased the frequency and desire to prepare

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meals with multiple steps from fresh ingredients and reinforced their need and desire for foods/meals that are quick and easy to prepare and eat. Although less common, some participants prioritized food in their lives and were able to maintain healthy food habits in the midst of work/school/life balance. Most commonly, these were participants who enjoyed the process of cooking and preparing meals. Participants who prioritized preparing food from whole ingredients coped with time constraints by utilizing their ability to make large batches of soups or stews to facilitate leftovers.

Finally, interconnections between participants' levels of food literacy, competing priorities and interests, and complex food environments, in turn impacted and shaped quite complex and emotional relationships with food. While most participants related positive emotions with food due to an enjoyment of eating, several participants described quite turbulent and worrisome relationships with food. It was discovered that these relationships were influenced by a variety of individual and contextual factors, which appeared to impact participants' physical and emotional health and well-being.

Together, these two research studies provide an in-depth examination and rich understanding of the food experiences of young Canadian adults newly transitioning to independent living. The first paper advances the understanding of what food literacy is from the perceptions of young adults, contributing to the development of food literacy as a construct for use in research and policy. The second paper explored the challenges young adults experienced in relation to acquiring and utilizing food literacy. It is critical to understand the barriers to food literacy identified in paper two in order to move forward with program and policy development and ultimately improve health and well-being.

Together, these papers demonstrate that while young adults in general value healthy eating and have basic food and nutrition knowledge and skills, they face significant challenges with regard to making healthy food choices and sustaining healthy food relationships. Through the combined contribution of these two papers it is suggested that (1) basic food and nutrition education may not be sufficient in current complex food environments, and (2) young adults may not be equipped with necessary food literacy to be well as they transition to independent living. It is inferred that participants could benefit from more comprehensive understandings of food and well-being, beyond nutritional and physical health outcomes.

Below is an explanation of a conceptual map which emerged from the interpretation of the study results. This framework includes aspects of food literacy (“knowledge, skills, attitudes, and values”), “food choices”, and “well-being”, which were the focus of research paper one. As well, this framework includes aspects of the “barriers & enablers” and “food relationships” which were the focus of research paper two. This framework provides a visual representation of the relationship between the two research papers and a complete illustration of the overall results of this study.

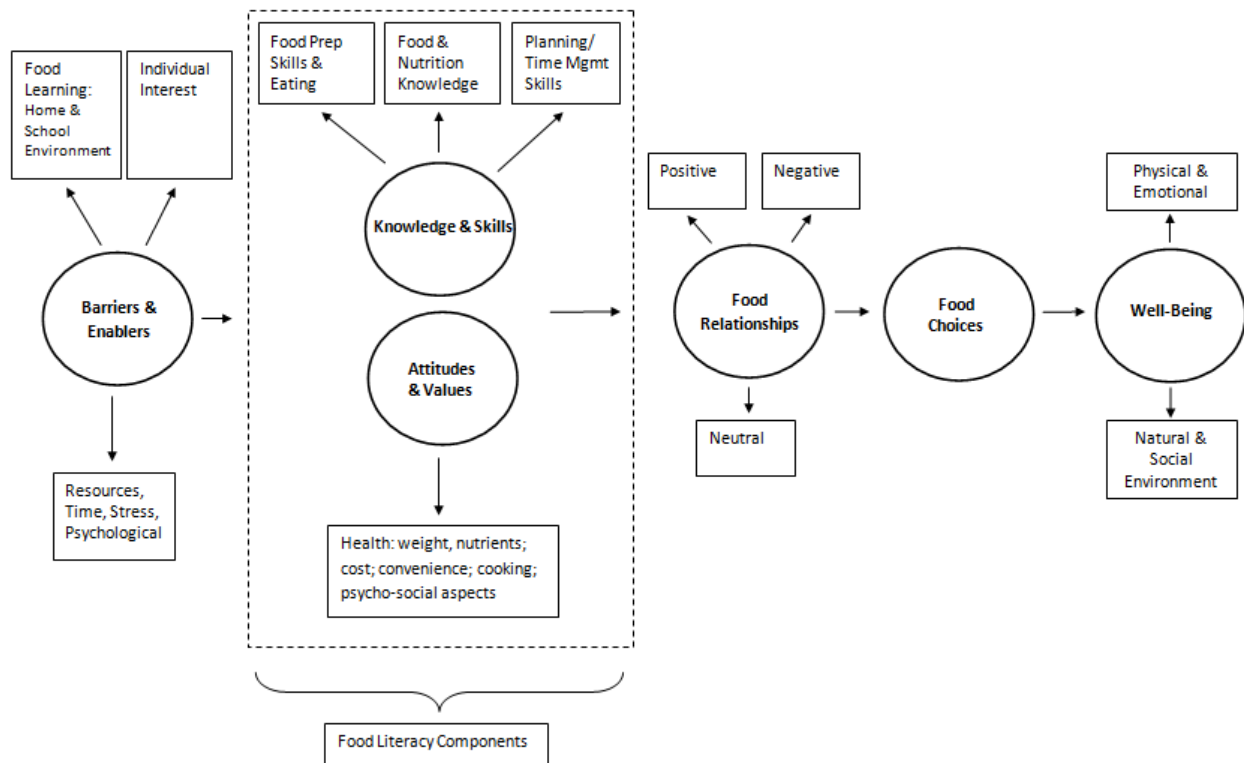
Food Literacy & Well-Being Framework

Figure 1 is a conceptual map which links barriers and enablers to acquiring and utilizing food literacy (knowledge, skills, attitudes, and values) perceived by participants as important to health and well-being. The most significant barrier or enabler to acquiring food literacy prior to independent living was food learning opportunities in home environments through parents. Individual interest in cooking and health and perceived time-constraints also played a pivotal role in the utilization of food literacy after transitioning to independent living. Broad components of food literacy which emerged from this study included: food preparation skills; food and

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nutrition knowledge; planning and time management skills; and various values and attitudes around food. Key components of food literacy which emerged from this study are aligned with several existing food literacy definitions and frameworks; particularly, Vidgen and Gallegos (2011, 2012), Schnögl et al. (2006) and Slater (2013). Participants had unique and complex relationships with food, which were shaped by individual and societal factors. Together, each component of the framework potentially impacted food choice and ultimately, health and well-being.

Figure 1: Food Literacy & Well-Being Framework



Limitations

This study has several limitations that should be taken into consideration when interpreting the results. First, the study used a small sample size of Canadian university students who may not be representative of the wider population of young adults who are of different socio-economic, educational and cultural backgrounds. As such, participants in this study may have shared more similar food experiences and challenges in the context of being a university student. However, a wide range of food literacy was demonstrated across participants as well as quite unique food experiences were described.

Secondly, the study did not quantitatively examine the food and dietary intake of study participants. Furthermore, the study did not have a quantitative measure for determining food literacy among participants. This limits the ability to draw conclusions about implications for the relationship between food literacy and health/well-being outcomes. However, the qualitative methods applied here revealed a rich understanding of food literacy levels among participants and the healthfulness of their overall dietary patterns.

Lastly, the study likely did not capture the full breadth of influences on the development and utilization of food literacy, which is highly complex due to individual (biological and psychological) and contextual factors. These influences will undoubtedly impact food learning, choices and relationships. All of which were taken into consideration when interpreting study results and drawing final conclusions/implications.

Despite these limitations this study served to advance the understanding of food literacy from the perceptions of young Canadian adults who recently transitioned to independent living,

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as well as opportunities and challenges to acquiring/developing food literacy and put forth practical recommendations to possibly improve health and well-being.

Future Work

This study has served to advance the wider understanding of food literacy from the perspective of Canadian young adults newly transitioning into independent living. Future research is required to further explore the scope and boundaries of food literacy and embed the components of food literacy into a holistic framework of “food literacy for well-being”. In addition, research is required to empirically measure components of food literacy as well as the linkages and pathways between food literacy and well-being. Finally, further work is needed that examines how to best translate food literacy through family, cultural, educational and private sector institutions.

Conclusion

This study has explored the concept of food literacy, in relation to well-being, in light of poor nutritional population health; loss of foundational food knowledge, skills and culture; and growing concern over current food production and distribution systems. Although key components of food literacy which emerged from this study are aligned with several existing food literacy definitions and frameworks, particularly, Vidgen and Gallegos (2011, 2012), Schnögl et al. (2006) and Slater (2013), this study adds to the body literature by explicitly linking food literacy as a critical construct for well-being. This was evident in the reductionistic views of study participants regarding food and health, which centered primarily on nutrition and disease prevention and fear of weight gain, highlighting the need for a shift to a well-being paradigm. Furthermore, results from this study indicate that there is a need to incorporate models of well-

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being into food and nutrition education, programs and policies in order to promote complete health and flourishing and sustain environments and cultures. Additionally, this study has important implications for food and nutrition education, programs and policies by addressing the challenges that are associated with acquiring and utilizing food literacy. Although more research is required, food literacy for well-being can potentially help researchers, practitioners, planners and educators create new ways of thinking and educating about food and nutrition.

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Appendices

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APPENDIX A

RECRUITMENT POSTER



WE WANT YOU TO PARTICIPATE IN A STUDY ABOUT FOOD AND WELLBEING!

- Are you between 18 and 25 years and a Canadian citizen?
- Have you moved out on your own within the last 2 years and are responsible for feeding yourself?

**WE WOULD LIKE YOU TO PARTICIPATE IN A
SHORT INTERVIEW!**

This will take about 45 minutes to 1 hour.

**For your time, you
will receive a \$20
gift card for the
U of M Bookstore!**

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APPENDIX B
PARTICIPANT CONSENT FORM



UNIVERSITY
OF MANITOBA

Faculty of Human Ecology
Human Nutritional Sciences

Research Project Title: Understanding food literacy from perceptions of young Canadian adults: A qualitative study

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of this study is to explore your opinions and experiences of knowledge and skills related to food as you transition to independent living. We are interested in learning more about how you manage your food on a day to day basis, what makes it easier or harder, and what you think about healthy eating and how it relates to living well.

The study involves the following:

- 1) *One-on-one interviews:* The single interview session you will be attending will be 45 minutes to 1 hour. It will be used to explore your opinions about knowledge and skills related to food and how these affect well-being as you have transitioned to independent living. The session will be digitally recorded with your permission. In order for the interview to proceed, the interview has to be recorded.

Please check the box if you give permission to have the interview digitally recorded.

This research is being conducted to obtain information on the current knowledge, skills, attitudes and values of young Canadian adults as they transition to independent living. The information will be used to develop recommendations for educators, policy-makers and the public; it will also be used to inform future research. Study results will be published in a scientific journal, a Master's thesis and presented at appropriate academic conferences. Although highly unlikely, there is a small risk that someone could identify you from verbatim quotes given during the interview. However, the researcher will take strict precautions to ensure no identifying information is present in written results to ensure participants remain anonymous.

After completion of the study, you will receive a \$20 gift card for the University of Manitoba Bookstore as a token of appreciation for your participation. In order to receive the gift card you must complete the interview. If you choose to withdraw from the study after completing the interview you will not be asked to return the gift card. To receive a summary of the results from the interview, complete the section at the end of this consent form.

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No names will be associated with the information you give, and the results will be reported for the group. Some quotes may be used, but these will be anonymous. Data related to personal information and results obtained including audio tapes will be kept in a locked cabinet in a locked room and destroyed on or before January 1st, 2018. The information will only be accessible to the researcher and her research supervisor.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time before May 1st, 2013 which is before the Master's thesis will be written. As well, you are free to refrain from answering any questions you prefer to omit, without prejudice or consequence. If you wish to withdraw from the study please contact the researcher and no information you provided will be used in the study analysis or results. You will not be asked to return the gift card if you wish to withdraw from the study. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This research has been approved by the Joint-Faculty Research Board of Ethical Review. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 474-7122. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature

Date

Researcher and/or Delegate's Signature

Date

FOR A COPY OF THE STUDY RESULTS, PLEASE COMPLETE THE FOLLOWING:

Name (Please Print): _____

I would like to receive the results:

E-mail Address:

^^

APPENDIX C
RESEARCH ETHICS & COMPLIANCE APPROVAL



**Research Ethics
and Compliance**

Office of the Vice-President (Research and International)

Human Ethics
208-194 Dafoe Road
Winnipeg, MB
Canada R3T 2N2
Phone +204-474-8880
Fax +204-269-7173

APPROVAL CERTIFICATE

February 5, 2013

TO:

FROM:

**Re: Protocol #J2013:001
"Understanding food literacy from perceptions of young Canadian adults: A
Qualitative study"**

Please be advised that your above-referenced protocol has received human ethics approval by the **Joint-Faculty Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement (2). **This approval is valid for one year only.**

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

- **If you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to the Office of Research Services, fax 261-0325 - please include the name of the funding agency and your UM Project number. This must be faxed before your account can be accessed.**
- **if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.**

The Research Quality Management Office may request to review research documentation from this project to demonstrate compliance with this approved protocol and the University of Manitoba *Ethics of Research Involving Humans*.

The Research Ethics Board requests a final report for your study (available at: http://umanitoba.ca/research/orec/ethics/human_ethics_REB_forms_guidelines.html) in order to be in compliance with Tri-Council Guidelines.

umanitoba.ca/research/orec

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APPENDIX D
INTERVIEW GUIDING QUESTIONS

INTERVIEW GUIDING QUESTIONS

Interview protocol:

Hi, I am doing a study looking at young adults and I am interested in what they think is important about food and how this affects their well-being or quality of life.

I am interested in learning more about how you manage your food on a day to day basis, what makes it easier or harder, and what you think about healthy eating and how it relates to living well. This research will help develop a better understanding of what young adults need, such as knowledge and skills around food, to gather recommendations for the government, practitioners, schools and other services.

This interview will take 45 minutes to 1 hour and, if you agree, will be tape recorded. The taped interview will be written out word for word but your name or any other personal information will not be on your interview or other documents. If at any stage you don't want to continue with the interview, just let me know and we can stop. Study results will be published in a scientific journal, a Master's thesis and presented at appropriate academic conferences. If it is okay with you I will begin the interview.

Guiding Questions:

1) Can you describe what you ate yesterday?

Probes: Did you prepare that yourself? Where did you eat this? Is this typical for you? Did you eat these meals with anyone else? Did you have to plan ahead for any of these meals? Do you typically plan ahead? If yes, do you plan ahead of trips to the grocery store? Use a list?

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2) Where did you learn about food from, such as certain skills or eating habits?

Probes: What did you learn? Who did you learn this from? How did you learn this? When did you learn this? Would you have liked to learn more of anything? What has been helpful to know when managing your food on a day to day basis? What stops you from applying some of this knowledge and skills to healthy eating?

3) Do you eat differently now that you have the main responsibility for your own food?
How and why?

Probes: What are the challenges? Are there foods that you would like to eat but can't? Why?

4) Do you think being able to prepare meals from basic ingredients is important? Why or why not?

Probes: Why? How confident are you with this? Do you think it's healthier to prepare your own food or buy already prepared foods? Do you think you can eat healthy without knowing how to prepare food? Are you able to prepare food from basic ingredients? If so, how often do you do this? Do you think this is the same for your friends? Any challenges?

5) When buying food, what's important for you to know?

Probes: Why? Are nutrition labels important? Do you understand how to read nutrition labels? Do you like to know where your food has come from? Do you ever think about how food relates to the environment? Do you think about your health when purchasing food? Are you concerned about your current or future health?

A) How do you find the process of being at the grocery store overall?

Probes: Do you find it difficult? Do get influenced by foods that maybe you would like to stay away from but are maybe too tempting to resist? How often does this happen? What types of food do you have a hard time saying no to? Why? Do you ever get overwhelmed?

..

B) Do you buy food from other places? Fast food places, convenience stores such as 7/11 or drug stores?

Probes: What types of foods do you buy? How often? Do you go there with the intention of buying food or is it spur of the moment decisions?

6) What do you consider “healthy eating” to be?

7) Do you think you know how to eat healthy?

Probes: Are you able to eat the way you would like to? Do you think you eat healthy?

8) What feelings do you associate with food?

Probes: Do you think you are in control of your food choices? If yes or no, how does that make you feel? What other feelings do you associate with food in your life? Does food bring enjoyment or pleasure into your life? Does preparing food for friends or family bring you positive feelings? Do you enjoy eating food with friends and family?

9) My last question has to do with food and well-being. A Canadian based organization has identified the following components as important to measuring how well people are living:

- a) Good living standards
- b) Healthy populations
- c) Healthy communities
- d) A sustainable environment
- e) An educated population
- f) Balanced time use
- g) High levels of democratic participation
- h) Access to and participation in leisure and culture

When looking at these components and thinking about knowledge, skills and attitudes around food, how important do you think food is in order to live well or have a high quality of life, if at all?

Aside from nutrition is there anything else about food that is important for well-being?

Note*: I will show participants a cue card with the different components.

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That is the end of the questions I have here. Do you have any other comments or questions at this time? You can also clarify any of your statements if you would like to.