"A Hungry Child Can't Learn, A Hungry Child Can't Play": The Perceived Impacts of Student Nutrition Programs on Student Well-Being and the Role of Policy in their Development and Implementation

By

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Abstract

The Ontario Ministry of Education is committed to promoting student well-being as one of the four interconnected goals of education. Student well-being is defined by the Ministry of Education as the positive sense of self felt by students when their cognitive, emotional, social and physical needs are being met (OME, 2016). It has four pillars: mental health, safe and accepting schools, healthy schools, and equity and inclusive education. This research is connected to the healthy school pillar and investigates the perceived impacts of student nutrition programs on student well-being, as well as their implication for policy implementation and development. Conducting a community-based research project in partnership with the Ontario Edible Education Network, I explored the perspectives of student nutrition program coordinators and a board of education superintendent. I conducted five semi-structured interviews with participants across Ontario who have extensive knowledge of student nutrition programs from both the operational design and practical implementation sides of these programs. My findings offer insight into the perceived impacts that these student nutrition programs have on the elements of student well-being, the development of these programs, and the potential that these programs have in promoting student well-being. This research demonstrates the need for collaborative and synergetic partnerships that can foster the opportunities that student nutrition programs provide in supporting the promotion of student well-being.

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Chapter One: Introduction

Due to the high rates of food insecurity in Canada, and the rising concerns over childhood poverty and related health issues, there has been a push by student nutrition programming advocates—such as parents, educators, students, and non-government organizations—for Canada to implement national food assistance programs (Gundersen, Kreider, Pepper, & Tarasuk, 2017; Koch, 2016). The current student nutrition programs that are available to elementary and secondary students in Ontario were developed to address the socioeconomic barriers students face when trying to access healthy food, and for schools to offer meals or snacks to students at little to no cost to promote child and youth health and well-being (Godin, Kirkpatrick, Hanning, Stapleton, & Leatherdale, 2017). Since Canada does not have a nationally supported student nutrition program, these school-level programs tend to be funded through grants, donations, and fundraising (Godin, Stapleton, Kirkpatrick, Hanning, & Leatherdale, 2015). Therefore, these programs are vastly different in terms of their physical space, the frequency of the programs, and the availability of foods offered (Godin et al., 2017). This variation leads to inequities between schools where programs in wealthier neighbourhoods have greater access to financial resources than programs in lower income neighbourhoods.

Student nutrition programs typically include one or more of the following offerings: breakfast, snacks at recess and/or after school, and lunches ranging from occasional hot lunches to daily lunches. Student nutrition programs in Ontario are not within the jurisdiction of the federal, provincial, or municipal governments. Rather, student nutrition programs in Ontario are a mosaic of several different program types ranging from independent programs run by champions in a school community such as a teacher, parent, or volunteer, to a network of student nutrition programs supported by agencies that seek funding from organizations like the Canadian

Red Cross Society, Victorian Order of Nurses, and many more. This diversity results in an enormous amount of variation between what types of food are served and how often student nutrition programs are available to elementary and secondary school students in Ontario. The title of my thesis explicitly highlights the complexity of trying to address the reality of poverty within the student nutrition landscape, while also promoting a student well-being lens.

Description of the Research Study

Although Canada is the only G8[1] country without a nationally funded student nutrition program (Ke & Ford-Jones, 2015) or national mental health strategy (Kutcher, Hampton, & Wilson, 2010), the Ontario Ministry of Education in 2016 recognized the importance of holistic student well-being for academic achievement and for the development of children and youth (OME, 2016). Schools have been recognized as vital sites for promoting student well-being by fostering climates that contribute to building supportive learning environments (Kutsyuruba, Klinger, & Hussain, 2015; Saab & Klinger, 2010; Vine & Elliott, 2013). In Canada, the public education system is primarily funded by provincial and territorial governments while the federal government funds First Nations on-reserve schools. Hence there is much variation between jurisdictions.

In the province of Ontario, promoting well-being seeks to ensure that all children and youth in publicly funded schools develop a positive sense of self and spirit through enhanced mental and physical health (OME, 2017). To help reach this goal, the Ontario Ministry of Education produced the *Ontario's Well-Being Strategy for Education* that outlines the cognitive,

[1] The G8 represented a group of eight counties who met regularly to discuss common interests: Canada, USA, UK, France, Germany, Italy, Japan, and Russia. With Russia's departure, the group is now referred to as the G7.

physical, social and emotional domains of student well-being (OME, 2016). Here, well-being is defined as a:

> positive sense of self, spirit and belonging that we feel when our cognitive, emotional, social and physical needs are being met. It is supported through equity and respect for diverse identities and strengths. Well-being in early years and school settings is about helping children and students become resilient, so that they can make positive and healthy choices to support learning and achievement both now and in the future. (p. 3)

What the *Well-Being Strategy for Education* document does not address, however, is the impacts of food on student well-being. Other Ministry of Education documents, such as the *Health and Physical Education curriculum*, focus on the nutrient qualities of foods that support physical health, and the importance of a balanced diet for cognitive functions, but do not explicitly teach the correlation between food and well-being. This is a significant gap in the policy frameworks and curricula documents, and thus may indicate a gap in practice as well.

Research Questions

The purpose of my research is to explore the promotion of student well-being through Ontario student nutrition programs, as well as the role that policy plays in student nutrition program development and implementation, through two key questions:

1. What are the perceived impacts of Ontario student nutrition programs on the development of elementary and secondary student well-being?
2. What role does policy (provincial or federal) play in the development and implementation of student nutrition programs?

By answering these research questions, my thesis contributes to an understanding of how student nutrition programs promote the *Ontario Well-Being Strategy for Education* by supporting

the domains of student well-being. Throughout this thesis, I will provide insight into why these programs are needed and why they should be considered an education tool for student well-being. Chapter two highlights the literature on student nutrition programs and student well-being. Chapter three discusses the methodology and methods used in this research project. Findings are presented in Chapter four and a discussion of the findings and recommendations are outlined in Chapter five. Lastly, Chapter six offers a summary of the research and a final personal reflection. This thesis provides both practical implications and policy recommendations for *Ontario's Well-Being Strategy for Education* as well as contributes insights to the field of education by discussing the perceived impacts that student nutrition programs have on student well-being.

Chapter Two: Literature Review

In the introductory chapter of my thesis, I briefly situated the student nutrition and student well-being landscape in Ontario, and provided a description of my research study. In this chapter I present an overview of the literature in the field of student nutrition and student well-being. I have organized it in six sections: *student well-being, school environments, nutrition education, student nutrition programs, community food security,* and the *role of policy.* I begin by introducing the Ontario Ministry of Education definition of student well-being and the Ministry documents that support student well-being. Second, I report the literature that promotes schools as an ideal setting to create an environment that supports student health and well-being. Then, I demonstrate how nutrition education and student nutrition programs both contribute to improving community food security in student populations. Lastly, I share literature that demonstrates the influence that policy can have in sustaining student nutrition programs and student well-being initiatives.

Student Well-being

Children and youth require caring adults to advocate for their rights to wellness, such as the prevention of poverty, illness, and abuse (Prilleltensky, 2010). Increasing concerns about child and youth well-being have been raised globally, attracting organizations such as UNICEF and the Organization for Economic Co-operation and Development (OECD) to monitor the indicators of well-being and its impact on education (Simmons, Graham, & Thomas, 2015). These concerns increase the external pressure that schools experience to address the cognitive, psychological, and emotional needs of students (Saab & Klinger, 2010). As a result, some schools have begun to monitor and promote student well-being (Saab & Klinger, 2010; Simmons et al., 2015). Understanding how well-being is approached in schools includes gathering the

perspectives of students, teachers, administrators, school community members, and education policy makers (Simmons et al., 2015).

Ontario's vision for education is outlined in the document, *Achieving Excellence: A Renewed Vision for Education in Ontario*, which identifies four goals: promoting public confidence in the education system, closing student achievement gaps, increasing student achievement, and promoting student well-being (OME, 2014). Promoting well-being is one of the four interconnected goals, and seeks to ensure that all children and youth in publicly funded Ontario schools develop a positive sense of self and spirit through enhanced mental and physical health (OME, 2017).

To better understand student well-being, the Ontario Ministry of Education engaged in consultations with students, educators, parents, and other community members from across the province to identify key areas for promoting and supporting well-being (OME, 2017). During these consultations, themes emerged such as: access to health and social services, supporting relationship-building that contributes to a sense of belonging, and an education system that prioritizes student well-being (OME, 2017). To promote student well-being, the Ontario Ministry of Education introduced the *Ontario's Well-Being Strategy for Education* that outlines the cognitive, physical, social and emotional domains of student well-being (OME, 2016; see Figure 1). Here, well-being is defined by the Ministry as the:

> positive sense of self, spirit and belonging that we feel when our cognitive, emotional, social and physical needs are being met. It is supported through equity and respect for diverse identities and strengths. Well-being in early years and school settings is about helping children and students become resilient, so that they can make positive and

healthy choices to support learning and achievement both now and in the future. (2016, p. 3)

Figure 1. The four domains of student well-being (OME, 2016, p. 3)

The well-being strategy for Ontario is comprised of four pillars: positive mental health, safe and accepting schools, healthy schools, and equity and inclusive education (OME, 2016). This strategy is meant to provide an understanding of current well-being practices in the Ontario education system, as well as identify opportunities to promote student well-being in schools. The Ontario Ministry of Education recognizes the need to engage in methodologies that promote creativity and innovation, while utilizing a systems-thinking approach to produce action-oriented solutions that represent an ideal future where student well-being is fully integrated in the education system. The ministry claims that it is critical for diverse cultures and perspectives in Ontario to be reflected in well-being strategies. Continued engagement in a collaborative process with education partners throughout the geographic landscape of Ontario provides opportunities

for the ministry to represent the unique and diverse student population groups including Francophone, First Nation, Métis, and Inuit communities (OME, 2016).

There are several documents available that support efforts in promoting student well-being (see Table 1 for a list of key documents). For example, in order to address student mental health specifically, the Ministry developed *Supporting Minds* (OME, 2013), whose guiding principles include: respect and understanding; healthy development, hope, and recovery; person-directed services; diversity, equity, and social justice; excellence and innovation; and, accountability. *Supporting Minds* states, "just as good physical health is more than the absences of disease, good mental health is more than the absence of mental illness" (p. 16). Additionally, the *Foundations for a Healthy School* is a resource for the promotion of well-being at an individual and school community level, and states that cognitive, emotional, social, and physical well-being are determinants of academic success (OME, 2014). This resource provides support in five areas: curriculum, teaching, and learning; school and classroom leadership; student engagement; social and physical environments; and home, school and community. Integrating all five areas and engaging students, educators, parents, and community members is understood as essential for implementing the various policies, programs, and initiatives that support student well-being.

Many Canadian schools traditionally teach health and well-being through physical activity due to the increased availability of resources in that realm (Saab & Klinger, 2010). In 2005, the Ontario Ministry of Education implemented the Daily Physical Activity (DPA) policy that requires school boards to ensure schools provide students with a minimum of 20 minutes of sustained moderate-to-vigorous physical activity every school day during instructional time (Allison et al., 2016). DPA is widely supported by administrators and educators to support

academic achievement, good behavioural conduct, and physical activity and also contributes to physical, social, and emotional student well-being (Allison et al., 2016). DPA supports the active living practices outlined in the Ontario *Health and Physical Education Curriculum*. In comparison, the *Canadian 24-Hour Movement Guideline for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep* outlines ideal movement behaviours for children and youth aged 5-17 years old (Tremblay et al., 2016). This guideline was released in June of 2016 and suggests that children and youth generally should increase the total hours of physical activity and sleep they get each day while significantly reducing sedentary behaviours such as sitting and limiting screen time to no more than two hours per day (Tremblay et al., 2016). Within ten years, it is hoped that the guideline will be fully implemented through supportive messaging and communications across sectors and jurisdictions such as healthcare (Tremblay et al., 2016).

When considering student well-being, it is also important to recognize the importance of student resilience. In general, resilience is the ability and capacity of an individual to overcome adversity (Liebenberg, Ungar, & Van de Vijver, 2010). It is impacted by individual differences, relationships with primary caregivers, and community resources and opportunities. Furthermore, it is an important indicator of student achievement and wellness because it can help regulate the effects of stressors. The *Child and Youth Resilience Measure-28* (CYRM-28) is a Canadian tool used to measure the resilience of children and youth (Liebenberg et al., 2010). Individual characteristics that are seen as helpful include personal skills, peer support, and social skills while physical and psychological factors include relationships with primary caregivers. Individual components and community resources are seen to be the most significant indicators of student well-being therefore Liebenberg (2010) and colleagues suggest that community service

providers should be engaged with students and schools to better address student well-being needs. Utilizing the CYRM-28 can be a helpful tool for measuring the impact of student resiliency before and after wellness program initiatives (Liebenberg et al., 2010).

Table 1. List of key documents that support student well-being in Ontario

Document Name	Brief Summary
Achieving Excellence: A Renewed Vision for Education in Ontario	This document outlines four goals for reforming education in Ontario: 1) achieving academic excellence, 2) ensuring equitable learning experiences, 3) promoting positive student well-being, and 4) enhancing confidence in the publicly funded education system.
Ontario's Well-Being Strategy for Education	The Ministry of Education defines well-being using the domains of cognitive, social, emotional, and physical needs to create a positive sense of self and spirit. This document discusses how well-being is a fundamental indicator of student success.
Supporting Minds: An educator's guide to promoting students' mental health and well-being	This document promotes awareness, prevention, intervention, and strategies for educators and parents with student mental health. This document is expansive and covers topics from anxiety to gambling.
Foundations for a Healthy School	This document focuses on the promotion of well-being as a part of the *Achieving Excellence* goals for education in Ontario. The framework used to teach well-being in schools follows five integrated areas: 1) curriculum, teaching and learning; 2) school and classroom leadership; 3) student engagement; 4) social and physical environments; and 5) home, school, and community partnerships.
Ontario Health and Physical Education Curriculum (Elementary & Secondary)	The revised *Health and Physical Education Curriculums* (re-issued 2018) for both elementary and secondary grades is divided into three strands: 1) active living; 2) movement competence; and 3) healthy living. The healthy living strand at both elementary and secondary grades discusses making healthy choices that support physical well-being and healthy eating. However, at the secondary level, the curriculum is expanded to include learning opportunities for mental health and emotional well-being in the third strand.
Daily Physical Activity (DPA) Policy Implementation in Ontario	In 2005 the Ontario Ministry of Education released the Daily Physical Activity (DPA) policy requiring school boards to ensure a minimum of 20 minutes of sustained moderate-to-vigorous physical activity every school day during instructional time. The benefits to DPA including student physical, social, and emotional well-being, as well as academic outcomes, conduct, and physical activity.
Validation of the Child and Youth Resilience Measure-28 (CYRM-28) Among Canadian youth	The *Child and Youth Resilience Measure-28* (CYRM-28) is an instrument containing 28 questions to determine resilience indicators based on of individual competency, relationship, and community resources and support. The strong correlation between individual components and community resources suggests that schools could be primary locations for service providers working to improve the outcomes of youth resilience and well-being.

Canadian 24-hour Movement Guidelines for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep	This research presents guidelines for children and youth between the ages of 5-17 outlining movement behaviours over a 24-hour period. This new guideline is presented to promote health and prevent disease.

Although each of the key documents identifies student well-being, none address the impacts that student nutrition programs have on student well-being but rather the discussion focuses on the physical and mental health of students. These documents thus lack a holistic approach to student well-being that support all four domains of well-being: cognitive, social, emotional and physical. Furthermore, since only one of these supports for student well-being is a policy, the other remaining documents can be eliminated or altered at any point. Therefore, there is no specific policy addressing student well-being in Ontario schools.

School Environments

Schools have been recognized as excellent sites for promoting positive well-being for children and youth (Korzun & Webb, 2014; OME, 2013; Short, 2016). Student experiences in schools affect their academic, social-emotional, and physical development (Faught et al., 2017; Saab & Klinger, 2010) and student well-being initiatives that contribute to positive school environments help develop social-emotional skills required for leadership, collaboration, and coordination (Short, 2016). Thus schools must consider the ways in which they impact student health and well-being and the resources and structures available in the environment that enable them to do so in a positive way (Saab & Klinger, 2010).

School climate contributes to academic achievement and student well-being through supportive learning environments (Saab & Klinger, 2010; Vine & Elliott, 2013). The welfare of children and youth is largely reflected in their quality of education and collective values of social justice and accessible community structures available in the school environment (Prilleltensky, 2010). A research study connecting socioeconomic neighbourhoods with health outcomes in

student populations found that student health and well-being can be significantly enhanced when school sites implemented educational and school community initiatives to combat individual and family conditions that hinder student health (Saab & Klinger, 2010). Therefore, school improvement initiatives should not only be implemented to improve student academic achievements but also aim to improve and promote student health and well-being. The school resources and structures that contribute to student well-being include school management, teaching practices, and school climate which influence student behaviour and affect student learning experiences (Kutsyuruba et al., 2015; Saab & Klinger, 2010).

Since children and youth in Ontario spend in excess of six hours a day at school for up to 191 days in a given school year, schools therefore can have a big influence on student health and well-being (OME, 2013). Schools with just and equitable school climates are associated with positive and trusting relationships that build community (Contento, 2015; Kutsyuruba et al., 2015). In a similar study, Simmons (2015) asked students to imagine and describe what well-being in their school would look like, and reported four themes: creative pedagogy, socially and emotionally supportive school environments, respectful and understanding relationships, and ensuring student voice in decision making. However, school climates can also create barriers for students, such as when bullying flourishes, which affects the perceptions of safety within the school and impacts student feelings of connection and quality of relationships (Kutsyuruba et al., 2015).

The importance of building positive and supportive relationships in schools helps to enhance a student's self-perception, feelings of safety and inclusion, and ultimately improves the social and academic dimensions of school climate. Therefore, schools should focus on improving the academic achievement of students by building collaborative partnerships that support student

mental, social, and physical well-being within school and the broader school community. Carriere and Richardson (2013) suggest that appreciating diversity and learning about different cultures promotes community and that when children and youth are supported by structures of care, they develop a greater sense of self by feeling important and valued in their school community.

All 72 school districts in Ontario are required to produce a "School Mental Health Strategy" and every school board has an employee who acts as Mental Health Lead (Lean, 2016). In 2011, School Mental Health ASSIST (Awareness, Strategy Selection, and Implementation Support Team) was created to address the recognized mental health programming gap in Ontario schools (Short, 2016). This group produced the *Open Mind, Healthy Minds: Ontario's Comprehensive Mental Health and Addictions Strategy*, a school mental health framework jointly published by the Ministries of Health and Long-Term Care, Children and Youth, and Education that aims to increase a sense of belonging, meaning, purpose, and hope among students and staff (Lean, 2016; Short, 2016). Additionally, this strategic framework acknowledges the importance of building school-based capacity by connecting students and building systems-wide commitment and collaboration. Programs and policies require both consistent messaging and local flexibility to implement initiatives and supports over a large and diverse region such as in Ontario (Short, 2016). School Mental Health ASSIST supports two student mental well-being coaches in the six geographic regions of Ontario as well as works with an Indigenous mental health professional to address the needs of First Nation, Métis, and Inuit students in all school boards. School Mental Health ASSIST uses evidence-based practices and research to introduce curriculum-linked and sustainable initiatives to bring systemic change to support school mental health and student well-being (Short, 2016).

The research available that discusses school environments highlights the importance of creating a positive and supportive community in a school to support student well-being and student learning experiences. Therefore, it is important to understand how school initiatives and programs such as student nutrition programs might influence the school environment. Through a deeper understanding of the impacts that student nutrition programs have on school environments, researchers, educators, administrators, and program coordinators can better utilize strategies to promote student well-being and improve student experiences in school.

Nutrition Education

The current global food system has compromised human health, ecological sustainability, social justice, and equity of food procurement (Koch, 2016). It also has contributed to the disconnect between food production and consumption, which has resulted in a loss of cooking skills and the increased consumption of processed, convenience, and takeout foods (Nanayakkara, Margerison, & Worsley, 2017). Koch (2016) believes that, as a society, there is a lack of understanding of the importance of food and what it means to eat together. There also is a need to teach how to grow and cook food, and food literacy education is one way of doing so (Koch, 2016). Food literacy focuses on building an understanding of food and food choices from an ecological sustainability, health, and social justice viewpoint (Koch, 2016; Nanayakkara et al., 2017).

Food is something that every student can relate to, and a topic that can be taken up across subject areas. Schools, therefore, are vital settings to teach food and nutrition skills by incorporating food into school curricula to provide an opportunity to deepen students' understanding of their relationship with food and the modern food system (Nanayakkara et al., 2017). The ultimate goal of food education is to make all consumers, including high level

policymakers and individuals, aware of food choices that are both ecologically sustainable and equitable (Koch, 2016; Nanayakkara et al., 2017).

School food literacy typically approaches food education from a perspective of food waste, health and well-being, social, economic, environmental, cultural, and political factors, as well as food preparation skills. Approaching wellness from such a holistic lens can incorporate emotional, physical, social, cognitive, and spiritual well-being (Brymer, Cuddihy, & Sharma-Brymer, 2012). As one interdisciplinary example, outdoor education can provide a unique opportunity to do so through experiential learning opportunities such as those offered through school gardens. School gardens can be used to teach social justice issues such as food security, build relationships and community as well as provide vocational opportunities for students interested in farming. School gardens also have been shown to promote academic achievement, sense of connection to school, and enhance nutrition (Korzun & Webb, 2014; Vine & Elliott, 2013).

Nutrition education is defined as "any combination of educational strategies, accompanied by environmental supports, designed to facilitate voluntary adoption of food choices and nutrition related behaviours conducive to health and well-being; nutrition education is delivered through multiple venues and involves activities at the individual, community, and policy levels" (Contento, 2015, p. 176). Nutrition education focuses on the motivation (*why*), the action (*how*), and the environment (*where* and *with whom*) to support change in eating habits. In Ontario, nutrition education typically involves teachers working in high school kitchen classrooms (when available) to teach food safety education and nutrition (Brown, Diplock, & Majowicz, 2016), however, not every elementary and secondary school has a classroom kitchen. Nutrition education is currently covered in the Ontario Ministry of Education documents,

Ontario Health and Physical Education Curriculum and *Supporting Minds*. The latter is comprised of eight chapters, each addressing a current mental health disorder (anxiety, mood, attention and hyperactivity/impulsivity, behaviour, eating and weight-related, substance use, gambling, and self-harm and suicide) (OME, 2013). Within the *Supporting Minds* document, scenarios are given with specific strategies for teachers to address food related issues. For example:

> Specific problem: The student skips meals regularly, has cut out important food staples from the diet, will eat only one or two foods, and refuses to change the behaviour.
>
> Strategy: [1] Speak to the student in a calm and non-judgmental way. Let him or her know what you observed and that you are worried about the behaviour you see. You should also inform the principal and parents since the behaviour could have serious consequences for the student's health. [2] Do not assume that the student is skipping meals by choice. In some poor families, the student may not have a lunch at school because there is not enough food. The student may be too embarrassed to admit that, and will say that he or she is not hungry or forgot to bring lunch. (p. 94)

Unlike the first strategy that moves from teachers letting the student know they care about them to next steps, the second response addressing food insecurity does not provide a next step with educators left to simply witness the problem without being offered an action step to help address it.

In summary, nutrition education in Ontario needs to evolve to support the development of an explicit food literacy curriculum and student nutrition programs at elementary and secondary school levels. Contento (2015) suggests that these should include meaningful and positive experiences with food since they are the most impactful. As well, a report from the Ontario

Student Nutrition Program (OSNP), *The Role of School Food Programs in Promoting Student Well-Being* states, "school food programs can be a place to celebrate different cultural diversity and connect students as they share a meal together. It's a place where everyone is equal...all ages, races and abilities. It's truly an inclusive program" (2017, p. 2). Although there is growing recognition of nutrition as an important component of academic achievement, it is also important to note that student nutrition programs also can impact all aspects of the Ontario student well-being strategy by promoting a safe and inclusive school environment where students have the opportunity to engage in a collaborative learning experience and build relationships with peers and staff, which can help increase the connection that students have with their school.

Student Nutrition Programs

Food insecurity and hunger affects four million Canadians, including 1.15 million households with school-aged children and youth, which represents a student food insecurity ratio of 1:6 (Ke & Ford-Jones, 2015). Food insecurity has negatively impacted the quality and quantity of access Canadian children and youth have to fresh and nutritious food. Canadian school breakfast programs and other student nutrition programs available today were developed to address such food insecurity, particularly the socioeconomic barriers students face when trying to eat healthy food (Godin et al., 2017). These programs offer meals or snacks to students in school with little to no cost thereby alleviating food insecurity and by extension promoting child and youth health and well-being. Since Canada does not have a nationally supported student nutrition program, these programs are funded through grants, donations, and fundraising. Morgan and Sonnion (2008) state that the sustainability and availability of student nutrition programs is dependent on financial support and political landscapes. It is imperative, then, that research about student nutrition programs address both the financial barriers that dictate the

availability and frequency of programs as well as identify how changes in the political climate can create challenges and opportunities for program sustainability.

A rigorous Canadian study examined whether American programs like the Supplemental Nutrition Assistance Program (SNAP) and the National School Lunch Program (NSLP) might improve food security if Canada were to adopt them (Gundersen et al., 2017). Researchers used *Statistics Canada 2009-2010 Canadian Community Health Survey* (CCHS) data to determine eligible households with children who theoretically would participate in programs like SNAP or NSLP. The findings predict an overall drop in the rates of Canadian food insecurity in households with children between the ages of 6-17, with the SNAP model reducing food insecurity rates between 16.3%-45.9% and the NLSP model reducing rates by 10.7%-47.8%. This research indicates that providing access to food in schools through programs such as these could be an equitable and inclusive initiative that supports well-being and social justice in schools.

Student nutrition programs are unique because they have the potential to be available to children and youth across socioeconomic demographics and for over a decade of their lives, with the potential to become, for some, "a more centralized activity than family meals" (Oostingjer et al., 2017, p. 3943). Frisvold (2015) found substantial evidence that documents increases in student achievement, cognitive development, school attendance, and nutritional intake when student nutrition programs are available. Additionally, Brymer et al. (2012) found that student nutrition programs that incorporate experiential food education, such as gardening, using grow towers, and farm-to-school programs promote student well-being by developing competencies in cognitive, physical, social, and emotional domains. Therefore, student nutrition programs should be considered an educational tool that promotes student well-being and student learning.

In Ontario, health-related eating is mentioned in the *Foundations for a Healthy School* document (OME, 2014), but it is left as the responsibility of individual schools, school administration, and student leadership to provide and engage in food learning experiences for students. The document explicitly designates responsibility for planning student nutrition programs, as well as determining the types of food and beverages available at schools, to be led by students and supported by schools. This offloading of student nutrition program development and implementation to individual students and schools is impractical and unsustainable and, given wealthier students and schools may be more likely to have the capacity to engage in this way, reinforces the systemic barriers that prevent equitable access for all students to participate in student nutrition programs. This is unfortunate since, as Dunifon and Kowaleski-Jones (2003) found, student nutrition programs can address barriers that lead to food insecurity among children and youth by providing access to nutritionally appropriate foods during school hours. In 2008 alone, over 700 new student nutrition programs were created and approximately 300 were expanded in Ontario (Godin et al., 2017). The funding for these programs vary so they are vastly different in terms of their physical space, the frequency of the programs, and the availability of foods offered.

Education and public health organizations are constantly evaluating the availability of food and drinks sold at school. This has resulted in the development of "junk food" bans on school property in six Canadian provinces: Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, and British Columbia (Leonard, 2017; Oostingjer et al., 2017). The *Ontario School Food and Beverage Policy* (PPM150) regulates the nutritional standards of foods and beverages for sale on school property such as cafeterias, vending machines, and school events (Orava, Manske, & Hanning, 2017). Unlike vending machines and school cafeterias, student

nutrition programs, such as breakfast, lunch, and snack programs, do not operate under PPM150 restrictions and nutrition standards since these programs are offered free to all students. Student nutrition programs take guidance from the 2008 *Student Nutrition Program, Nutrition Guidelines* provided by the Ontario Ministry of Children and Youth Services (Vine & Elliott, 2013). However, these guidelines are not closely regulated or implemented throughout the province. A research study evaluating the impacts of this ban suggest that although students cannot purchase junk food at school, they are still able to consume junk foods at school that were brought from home or purchased outside of school property (Leonard, 2017; Oostingjer et al., 2017).

Another interesting discussion related to specific food availability relates to milk. In a study examining school and non-school dietary intake, it was found that Canadian children are consuming less dairy products in school than outside of school (Tugault-Lafleur et al., 2017). The researchers suggested increasing the amount of milk products offered during school hours through meal programs, asserting it would ultimately lead to increase consumption and improved health. However, this recommendation does not take into account the number of students who are lactose intolerant or vegans. Having schools offer milk products is one thing, but we must also acknowledge that educators are authority figures for children, and if school staff are telling children to drink milk, they will feel pressure to do so even if that is an inappropriate demand. Therefore, focusing on a specific food type may not be wise in a student nutrition program. Rather, offering alternatives for students so that everyone can participate in nutrition programs is more socially inclusive. Indeed, Godin (2017) asserts that it is extremely important that the foods offered during student nutrition programs do not create barriers for student participation based on cultural, religious, or dietary restrictions.

Community Food Security

The right to food was officially recognized in the 1948 Universal Declaration of Human Rights. Article 25 of the declaration states that "everyone has the right to a standard of living adequate for the health and well-being of himself [sic] and of his family, including food, clothing, housing and medical care" (UDHR, 1948). The first agreed-upon definition of food security was established in 1996 at the United Nations Food and Agriculture Organization (FAO) International Food and Agriculture Summit in Rome. According to the FAO, "food security exists when all people, at all times, have physical, social and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (OHCHR, 2010, p. 4). Today, the right to food is still recognized in international human rights law and is realized "when every man, woman and child, alone or in a community with others, has physical and economic access at all times to adequate food or means for its procurement" (OHCHR, 2010, p. 2). In both of these definitions, the idea of access is clear. Further, economic, social, and physical needs must be met in order to achieve food security.

The idea of community food security (CFS) differs from individual food security by focusing on a local food system and the community infrastructure available to achieve food security (Hamm & Bellow, 2003; Scott Kantor, 2001). Hamm and Bellows (2003) define community food security as "a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice" (p. 37). The promotion of health, well-being, and sustainability are at the core of community food security interventions. CFS is highly differentiated depending on the geographic environment, political economy, and demographic identity of the community (Hamm & Bellow, 2003; Scott Kantor, 2001). For instance,

communities within the same city might have different objectives to improve food security. One community might focus on developing adequate transportation for citizens to access food retail stores, while another might focus on student nutrition programs to increase food access at school. Regardless of the initiative, community food security programs increase the quantity, quality, and accessibility of food for communities, especially the affordability of food for low-income community residents (Scott Kantor, 2001).

Hamm and Bellow (2003) suggest that a systems approach is most appropriate for holistically framing a community food security issue. For a systems approach to CFS to work, both the issues and the action strategies developed must be designed with the motivation of improving food security on a larger policy and program level. Simply put, CFS strategies target community-based and community-identified goals to promote health, well-being, and sustainability. As a result, six principles have been identified to help frame CFS efforts:

1. Focus on low-income populations' food needs.
2. Define food security as a product of wide social issues and policies, including, for example, community development and environmental management.
3. Maximize the relationship between local food consumption and locally grown food.
4. Emphasize community self-reliance and empowerment, not emergency and charity food relief.
5. Promote a democratic, community-responsive food system based on a stable, local agriculture with fair farm labor wages, job security, training and support for new farmers, farmland preservation, and better relations with consumers.

6. Include the talents and participation of diverse peoples in the community as reflected by different ages, cultures and races, job and economic security status, genders, citizenship, etc. (Hamm & Bellow, 2003, 39)

Hamm and Bellow believe that these six principles can be best addressed through social and economic justice initiatives.

Student nutrition programs address both the economic and social inequities in communities by promoting food security through access to food in schools and student well-being through supportive school environments. Thus student nutrition programs that promote nutrition education are understood as examples of CFS initiatives. Hamm and Bellow (2003) state that nutrition educators provide interventions and opportunities for communities to become more food secure in five interconnected ways. First, nutrition educators participate in problem and solution identification by listening to the needs and experiences of community members. Second, nutrition educators provide analysis and health interventions in their communities. Third, nutrition educators affect public policy through their work in policy development, advocacy, and implementation. Fourth, nutrition educators design projects and programs to meet the needs of their communities. Fifth, nutrition educators are advocates for the right to food. All of these points of entry provide opportunities for nutrition educators to strengthen awareness, involvement, and accountability for food security initiatives in communities. Hamm and Bellow thus believe that nutrition education is an example of "how education and research come together to influence public policy and form well-targeted CFS programs" (p. 41). As well, Scott Kantor (2001) states that when a community initiates a student nutrition program, students have the opportunity to interact with the local food system by learning where their food comes from by interacting with the farmers who grow the food. Working with student nutrition programs

provides an opportunity to strengthen community food security because it is motivated by improving food access for students in schools, while also developing programs and policy to make change.

The Role of Policy

A silo mentality has created barriers for effective partnerships across sectors (Manion, 2010). A silo is an isolated storage tower that is used on farms to store grain. Although farms often have more than one silo on the property, they operate in isolation from each other. I use this metaphor to describe the landscape of student nutrition programs and student well-being in Ontario. Although both student nutrition programs and student well-being initiatives operate in schools across the province, I have found that these initiatives operate in their own spaces, like silos in a school, rather than sharing best practices and working on collaborative projects. Both the Ministry of Education and Ministry of Health and Long-Term Care in Ontario support various initiatives and programs in schools that promote student nutrition or student well-being to help kids be healthy and learn in school. However, since these ministries often operate with a silo mentality, there are vast differences school-to-school. There could be two programs running in a school at the exact same time with similar aims of supporting students, but they do not work together. They operate in the same physical space, but they do not share resources. Because of this silo mentality, rather than the ministries leading the way, school champions and advocates are catalysts for the development of provincial and national student nutrition programs and guidelines (Vine & Elliott, 2013). Changing the student nutrition landscape in Ontario requires attention to economic, political, physical, and socioeconomic environmental considerations therefore school champions and advocates find themselves working with a variety of

policymakers from different ministries to ensure that students have access to healthy food in school (Vine & Elliott, 2013).

An American study investigating the development, implementation, and evaluation of school nutrition and physical activity wellness policies found that school board members, school board leaders, school wellness advocates, and public health nutrition directors all agreed that school wellness policies positively impact schools (Agron et al., 2010). The study found that the most positive impacts of school wellness policies support children's access to healthy food at school, healthy eating habits among students, physical activity levels among students, and school staff support for school wellness. This study also identified the most prevalent barriers to effective school wellness policy development, implementation, and monitoring, to be funding, competing priorities, and lack of time being the biggest challenges (Agron et al., 2010). As well, Vine and Elliot (2013) found that student nutrition program operations are expensive, which contributes to an unstable school food environment. Therefore, financial commitment and supports from provincial and national governments are needed to ensure sustainability for student nutrition programs. Without specific policies, student nutrition programs and student well-being initiatives are at risk of shutting down.

Approaching child and youth well-being from a social justice lens emphasizes the equitable distribution of resources to students (Prilleltensky, 2010). Ke and Ford-Jones (2015) suggest that to change food insecurity in Canada, policies that address food must address the issue of poverty. Adults with power and voice have an obligation and a social responsibility to engage and partner with children and youth in matters that affect their well-being. Social change requires transformative and collectivist thinking that promotes change to social structures and systems for multiple generations rather than a one-shot emergency response (Prilleltensky,

2010). In a health promotion model, student well-being should be everyone's concern and should be embodied in the collaboration of systems such as education and healthcare. Thus Prilleltensky (2010) suggests that community development initiatives be systemic, and encourage holistic collaborations between education and support services to deliver universal wellness programs.

Agron et al. (2010) propose six recommendations for successfully implementing school wellness policies that take a more systemic and holistic approach:

1. Long-term, top-level commitment to student health and wellness from administrators and the school board.
2. A wellness coordinator or another dedicated person or staff to guide wellness initiative, along with highly motivated, result-oriented staff charged with implementation.
3. Data-driven approach to decision making, communications, and program tracking.
4. A community environment that values wellness.
5. Cooperation and collaboration with state agencies, such as the departments of education, agriculture, and health.
6. State-level [or provincial] leadership and legislation that support and mandate positive change. (p. 533-534)

Specific to school nutrition, Contento (2015) suggests that schools that promote health should implement school wellness policies that address the inputs (people and resources), outputs (motivation, action, and environment), and outcomes (short, medium, and/or long-term impacts) of student nutrition program implementation on the behaviours and practices of students. Koch (2016) states that policy that supports comprehensive student nutrition and

education program development has shown to increase the consumption of fruits and vegetables, as well as positively impact student knowledge and attitudes about food. Student nutrition programs and nutrition education should promote actionable behaviour changes such as these that make learning experiences about food more meaningful and relatable to the daily lives of students.

Moreover, policy support is critical for nutrition curriculum development and implementation (Agron et al., 2010; Koch, 2016). Policies can provide guidance for evaluating student nutrition programs in terms of nutrition standards, although these evaluations should also consider student nutrition program impacts on depression, anxiety, stress, school dropout rates, and other health dimensions of student well-being related to the school food environment and student learning (Agron et al., 2010; Koch, 2016; Oostingjer et al., 2017). Although full policy implementation is challenging, mandating such policies provides opportunities to develop food literacy programming in schools and can have a critical influence on the sustainability of student nutrition programs and student well-being initiatives. It is important for policymakers to gather information by engaging in collaborative consultations with researchers, advocates, educators, and other stakeholders to ensure that policies address and support the needs of the community (Agron et al., 2010). My thesis also seeks to contribute useful information for policymakers.

Conclusion

In order to change the provincial landscape of child and youth well-being in Ontario, meaningful leadership, collaboration, creativity, and innovation is necessary. However, before proposing specific frameworks and policies, it is important to ask the right questions. Therefore, identifying gaps and promising practices already occurring can provide helpful direction to such efforts. As noted in the literature review, there is a lack of research describing the benefits of

food education on student health and well-being in Ontario. This research is needed because it goes beyond simply measuring the nutritional impacts of food education and student nutrition programs and aims to explore the influence of food on student well-being. This thesis thus helps fill that gap by investigating the perceived impacts student nutrition programs have on student well-being, and the role of policy in their development and implementation. In the next chapter I explain the methodology and methods used in the thesis.

Chapter Three: Methodology and Methods

As discussed in the previous chapter, there has been a sustained campaign by student nutrition programming advocates—such as parents, educators, students, and non-government organizations—for the federal government to implement national food assistance programs. The literature available largely promotes the positive impacts that student nutrition programs have on student physical health and academic achievement. However, as defined by the Ontario Ministry of Education, student well-being is comprised of not only physical but also cognitive, social and emotional needs. My research thus focuses on the perceived impacts that student nutrition programs have on all domains of student well-being, with a particular focus on social and emotional determinants. As a reminder, my research questions are twofold:

1. What are the perceived impacts of Ontario student nutrition programs on the development of elementary and secondary student well-being?
2. What role does policy (provincial or federal) play in the development and implementation of student nutrition programs?

In this chapter, I present my research methodology and the methods utilized. In order to situate myself in this research, I begin the chapter by describing my background and relationship to student nutrition programs. I then describe the theoretical framework and the resulting methods I used to capture student nutrition program coordinators' and a superintendent's perceptions of impacts that student nutrition programs have on student well-being.

Personal Background and Positionality

I am a White Euro-Canadian settler. I was born and raised in Toronto, Ontario in a Ukrainian Catholic family. I had the privilege of growing up in a food-secure household, where food was a central component for all family and social events. During my education, I attended a

Ukrainian heritage elementary school in the publicly funded Toronto Catholic District School Board where my culture was reflected and celebrated. The majority of my elementary school friends attended the same high school as me, which made the transition easy. The school's student population consisted mainly of other middle-class Euro-Canadian settlers from Poland, Italy, and Portugal. Following high school, I attended Lakehead University where I quickly learned that my childhood experience was different from others. In my first year at university, I met many people from different cultural and socio-economic backgrounds. I learned how to empathize with people who faced injustices that I have never experienced such as racial discrimination.

In third year, I took a course called *Food Systems and Food Security,* which exposed me to the complexities of the global food system and food accessibility issues in Canada. Becoming aware of my privilege also made me aware of the social injustices many people face, including food insecurity, which sparked my interest in social justice education. In fourth year, I completed an undergraduate thesis exploring the barrier and factors of student nutrition programming and its implementation in Canadian schools.

During my pre-service teacher training placements, I witnessed firsthand the impacts of hunger when students in my class came to school without having had breakfast and/or with no lunch. I also saw the effects that their hunger had on their well-being and academic achievement. This experience motivated me to contribute to changing the Ontario education system by researching the determinants of student well-being and the impacts that student nutrition programs can have. I believe that educational initiatives can help improve food security and that food can also be used in fostering well-being through holistic learning strategies.

While I hold strong to these beliefs, I was aware that these perspectives had the potential to impact my research by biasing my interpretation of the data towards favouring positive correlations between student nutrition programs and student well-being. In order to mitigate this, during the data collection process I did not discuss my personal beliefs about student nutrition programs with participants prior to or during the research interview as I did not want my opinion to impact their perceptions or persuade them to only discuss favourable correlations between student nutrition programs and student well-being. Additionally, I ensured that my interview questions reflected a more objective perspective by allowing opened ended questions that were assessed by Charles and Carolyn, as well as the Research Ethics Board at Lakehead University. I immersed myself in rigorous data analysis where I coded the interviews from a critical perspective to ensure that I not only focused on positive aspects of the data but also barriers and challenges.

Qualitative Research Informed by a Transformative Paradigm

Shear (2016) and Mertens (2010) consider a transformative paradigm as an umbrella term for a variety of approaches to social justice-oriented research. Educational research on food has traditionally focused on the relationship between food and student learning, cognitive development, and academic achievement, which has contributed to the justification of student nutrition programs and the need for healthy food for learning (Dominguez-Whitehead, 2017). However, most of this research does not employ a social justice lens. As Dominguez-Whitehead (2017) suggests, foregrounding social justice in food research in education enables researchers to examine food-related problems (i.e. injustices) such as the distribution of resources in schools and issues of marginalization and equity. A transformative research paradigm, which Mertens (2010) described as one where the researcher and participants work together towards social

transformation, can be used to critically examine and promote social justice-oriented food research (Dominguez-Whitehead, 2017; Mertens, 2010; Romm, 2014).

Researchers must consider both ontological and epistemological assumptions before they proceed. A typical ontological assumption in a transformative paradigm is that reality is socially constructed and critically examining these perceived realities is a valuable task (Mertens, 2010; Romm, 2014). Researchers working from a transformative paradigm also typically believe that knowledge is co-created by the researcher and the participants, and therefore adopt a constructivist epistemology (Leavy 2018; Tremblay, Martin, McComber, McGregor, & Macaulay, 2018). As a researcher that means that I see knowledge as constantly being constructed and reconstructed based on the interplay of my interactions with participants and my own interpretations (Leavy, 2017). As Dominguez-Whitehead (2017) suggests, researchers who clarify their epistemological beliefs can approach their participants' experiences more transparently. Taking this constructivist approach means that I seek to understand how participants' interactions with student nutrition programs inform their perception of impact on student well-being.

In a transformative paradigm, researchers also have a social change agenda. Food research in education from this paradigm seeks to identify concerns, examine problems, and propose strategies to create more equitable social structures and systems (Dominguez-Whitehead, 2017). Further, this approach allows opportunities for new research topics to be examined such as student well-being, particularly as they connect with issues of equity and create opportunities for change.

Qualitative research in education fits well with a transformative paradigm given it remains grounded in the real world by advancing the understanding of lived realities of students,

educators, and administrators (Leavy, 2017). Doing so requires researchers to deconstruct their own understanding of a phenomena and how it influences their interpretation of participants' lived experiences (Hadfield, 2012), which is why I wrote about my positionality at the start of this chapter. By reflecting on how I came to understand my relationship with student nutrition programs helped me to better identify what underlying assumptions I had about the possible impacts of student nutrition programs.

Qualitative research in education that works within a transformative paradigm sometimes uses a community-based approach where community members are active in the research project from the beginning to the end and "where strengths and responsibilities are shared to enhance understanding of a given phenomenon and the social and cultural dynamics of the community, and integrate the knowledge gained with action to improve the health and well-being of community members" (Israel, Schulz, Parker, & Becker, 1998, p 177). Community-based research is a problem-centered approach where community members identify a problem in their community that then guides research design (Leavy, 2017). Community-based research is commonly used in research that is interested in understanding the impacts of human behaviours for the purpose of improving health outcomes (Noonan, 2015; Wallerstein & Duran, 2010). Cooley (2013) argues that educational researchers using community-based research to understand complex realities of a specific site can indeed produce social change. Further, such research can bridge theory and practice and build relationships that can increase equity in community (Wallerstein & Duran, 2010).

I chose to adopt community-based research practices informed by a transformative paradigm in my research project. I engaged in a collaborative process with communities and participants in the hope of creating social change by helping mobilize systemic changes in

student nutrition programs. Since a transformative paradigm necessitates a constructivist epistemology, I sought to build understanding with my participants so I employed semi-structured interviews. Below, I provide further detail into the specifics of my methods.

Methods

In September 2017, I discussed my interests in social justice, student well-being, educational policy, and food systems and food security with my thesis supervisor, Dr. Charles Levkoe who holds a Canada Research Chair in Sustainable Food Systems. Following that meeting, Charles reached out to a few of his community partners to explore research needs in the area of school food programs at the school or provincial level. During this time, I began to collect and analyze literature on student nutrition programs and student well-being and identified a lack of qualitative research on the impacts of student nutrition programs on student health and well-being. I noted that Korzun and Webb (2014) had called for qualitative food education research that describes how student nutrition programs impact student health and well-being rather than only outlining characteristics and challenges of these programs. They also recommended researchers seek a variety of perspectives from stakeholders such as students, teachers, parents, administrators, and community member.

Dr. Levkoe received an enthusiastic response from Carolyn Webb, the Network Coordinator of Ontario's Edible Education Network. I was very excited and eager to reach out to Carolyn to discuss opportunities for my research project. When we connected in November 2017, she discussed the Ontario Ministry of Education's interest in improving student well-being across the province. She also noted the strong intersection of student well-being and school food, adding that the conversation around student nutrition programming had been almost non-existent in provincial student well-being discussions. Carolyn is a distinguished researcher, advocate and

leader in the province for student nutrition programming. Her valuable insight into the community of practice as well as her support for this research was pivotal in developing the research questions and research direction.

Embracing a community-based research model, I worked with Carolyn and she took an active role in the research from the beginning to the end. As mentioned previously, community-based research is a problem-centered approach to research where an individual or group has identified a problem important to their community. Carolyn identified a need in her community for research at the provincial level that discussed the impact that student nutrition programming has on student well-being. Therefore, Carolyn's identification of a need in her community allowed for a problem-centered approach to guide the research design.

During the next several months, I focused on developing a research proposal and the application to the Research Ethics Board (REB) at Lakehead University. In collaboration with Carolyn, I also was able to attend the *2018 Healthy Schools Conference* in Hamilton, Ontario that was hosted by the Ontario Healthy Schools Coalition. Attending this conference enabled me to connect with organizations across the province engaging in initiatives addressing *Ontario's Well-Being Strategy for Education* (OME, 2016). The networking opportunities at this conference allowed me to establish a rapport with a variety of professionals working within the provincial school nutrition landscape. The discussions at the conference also re-confirmed the research gap suggested by the literature and Carolyn's professional observation. The presentations from across the province focused heavily on physical activity and student mental health, without touching on the impacts that student nutrition programs have on other elements of student well-being such as emotional and social needs. Therefore, it became even more clear that in order to better assess the impact of *Ontario's Well-Being Strategy for Education* (OME,

2016), research was needed to gather evidence on the cognitive, physical, social, and emotional impacts a student nutrition program may have on student well-being.

As spring 2018 approached, my research design came together. My thesis proposal was accepted by Carolyn as the key community member, my supervisor Charles, my committee member Connie Russell, and the department. I also was given ethics approval by the REB to proceed.

As noted earlier, Dominguez-Whitehead (2017) states that a transformative paradigm in food research necessitates a focus on social justice and argues that a qualitative methodology is congruent with that approach. In the field of education generally, qualitative research has contributed to education reform through influencing policymaking (Cooley, 2013). Researchers and policy makers have used qualitative research to argue for changes in public education by gaining a deeper understanding of the complex realities of schooling that would otherwise be missed in quantitative research (Cooley, 2013; Palinkas et al., 2015). With the guidance offered to me by Carolyn as a community member, which is in line with a community-based approach, I chose to use interviews to gather, analyze, and interpret the perceptions of four student nutrition coordinators and a superintendent on the impacts that student nutrition programs have on meeting the physical, cognitive, social, and emotional needs associated with student well-being.

Participants

A transformative, qualitative approach influences decisions about participant selection and data collection processes. Researchers must ensure that they have chosen the right people and the right methods not only for the production of knowledge, but also to best reflect the context of their research (Mertens, 2010; Romm, 2014; Tremblay et al., 2018). In terms of context, I personally am able to see student nutrition programming and student well-being from

multiple perspectives, as a former student, a current occasional teacher, and as a researcher. Additionally, having attended the *2018 Healthy Schools Conference* early on, I was able to familiarize myself further with the contextual environment. The social networking opportunity at that conference allowed me to make some personal contacts in the field that was useful in identifying potential participants.

At the time of the conference, the provincial elections were still unfolding and the shifting political environment in the province directly impacted my participant selection. Presenters at the *Healthy Schools Conference* were cautious about the future of supports for student well-being in the province. This is because the *Ontario's Well-Being Strategy for Education* (OME, 2016) document was developed under the Liberal government, and the possibility of having a Progressive Conservative (PC) government could dramatically change the landscape. As a result of the June 2018 provincial elections, the PC Party won, and Premier Doug Ford took office. As a result, I had to adapt my participant selection process.

Prior to Premier Doug Ford's election, my recruitment strategy was to work with Carolyn to identify student nutrition program coordinators and implementation supporters such as chefs, public health nurses, and educators. However, due to the new political landscape, finding participants who were willing to speak about their student nutrition program became extremely difficult. Five of the original six participants I recruited expressed feelings of stress, anxiety, and worry about participating in a research project that could potentially identify them and threaten the funding of their student nutrition program. The participants who withdrew expressed that it was more important for them to continue the work they are doing under the radar rather than taking any risk of being identified, even when I assured them of confidentiality and anonymity. The risk of losing a program that their students so desperately needed was just too great. In the

end, of the six participants I had first contacted, only two agreed to remain. Thus now instead of sampling participants from the broad network of student nutrition coordinators and implementation supporters that were present at the *Healthy School Conference,* I now had to rely on the rapport that Carolyn had established with her closest colleagues to recruit additional participants.

Throughout the initial participant recruitment phase, and after the provincial election recruitment phase, I employed purposeful sampling methods. Researchers must try to include a variety of perspectives in their research to provide a diversity of experiences (Palinkas et al., 2015; Tremblay et al., 2018). Within the qualitative research field, several researchers agree that purposeful sampling strategies involve some type of participant recruitment using criterion sampling strategies (Leavy, 2017; Palinkas et al., 2015; Tremblay et al., 2018). Criterion sampling strategies ensure that the participants in the research are representative of the community as well as reflect the purpose and goals of a study (Arcury & Quandt, 1999).

Purposeful sampling strategies are used in qualitative research to identify and select research participants who have a plethora of knowledge and experience with a specific phenomenon (Dworkin, 2012; Palinkas et al., 2015). Indeed, knowledge of, and experience with, the research phenomena are the most important criteria for purposeful sampling (Palinkas et al., 2015). During the first phase of participant recruitment, my purposeful sampling strategy mainly focused on finding individuals with knowledge of student nutrition programs and experience with coordinating these programs. However, during the second phase of participant recruitment, it became equally as important to find participants who had knowledge of and experience with student nutrition programs, and who also were excited to participate in this research. I wanted to ensure that participants saw the value in participating in this research and saw the potential

benefit my research might have for promoting student well-being. Several researchers who use purposeful sampling strategies say that researchers should also consider the availability and willingness of their participants as I did, as well as the participants' ability to articulate their knowledge and experience in a reflective manner (Arcury & Quandt, 1999; Dworkin, 2012; Palinkas et al., 2015). I assumed my participants could effectively communicate their professional knowledge and experience given that they were recommended by Carolyn.

Furthermore, community-based research projects often require researchers to be adaptive in their participant selection strategies due to factors affecting participation (Janosky, Sun, Laird, & Kostura, 2008). Although there is limited research on what affects participation in community-based research projects, the researcher's relationship with the community can have a big impact (Janosky et al., 2008). For instance, researchers can encourage participation and increase retention by being transparent about the goal and purpose of the research project and the positionality of the researcher (Janosky et al., 2008). It also is recommended that researchers be proactive in becoming part of the community (Dominguez-Whitehead, 2017; Mertens, 2010). Certainly, it was important to me that Carolyn and I established a positive rapport so that she was comfortable with me contacting her colleagues for this project. Having been transparent with Carolyn throughout the research project made the initial recruitment easier and she was pivotal in my second phase of the research by allowing me to use her name in my introduction email to potential participants and to copy her in the emails. This gesture helped to establish trust between me, as researcher, and the potential new participants given their existing rapport with Carolyn. My already established rapport with other participants because of community ties was also helpful.

In order to help with purposeful sampling, I constructed a research participant criteria matrix (see Table 2). It outlined key characteristics that distinguish student nutrition programs from each other such as geographic context (urban, rural, northern, and/or southern), program size, years of operation, and student demographics (such as socio-economic class, and ethnicity). Using a criteria matrix helped me ensure that I represented as many perspectives as possible within the limitations of time, funding, and provincial political landscape. For example, I recruited participants from a variety of school districts across the province.

Table 2. Participant Criteria Matrix

	Participant 1	**Participant 2**	**Participant 3**	**Participant 4**	**Participant 5**
Participant Name and Contact Information					
Job/Role (e.g., program coordinator, public health nurse, chef, educator)					
Geographic Location (urban, rural, north, south)					
Program Longevity (e.g., pilot project, 1 year, 5 years, etc.)					
Program Type (e.g., breakfast, lunch, snack, etc.)					
School Type (elementary or secondary)					
Student Demographics (e.g., Indigenous, immigrant, ESL, socio-economic status)					

I used a combination of criterion sampling and snowball sampling strategies in order to satisfy my participant criteria matrix. The implementation of purposeful sampling usually combines two or more strategies such as criterion sampling and snowball sampling strategies to meet targets for participants (Arcury & Quandt, 1999). Participants already recruited through criterion sampling can help identify other potential participants who might help complete the

criteria matrix; this is known as snowball sampling (Palinkas et al., 2015). This specific combination is sometimes called a funnel approach and is recommended because it allows researchers to ensure they are accessing both breadth and depth of participant experiences (Palinkas et al., 2015). Palinkas et al. (2015) also argue that the funnel approach is the best approach for community-based research designs that utilize semi-structured interviews for data collection. As previously stated, due to change in provincial government, four of the original six participants decided they could not participate. The two original participants who agreed to continue participating were able to identify others who might be interested and willing to, which was the snowball sampling phase.

Purposeful sampling strategies also are used to enhance the validity of the research by demonstrating appropriate data saturation (Dworkin, 2012; Palinkas et al., 2015). With that being said, there is no finite number of participants used to determine valid purposeful sampling strategies; typically researchers must be aware of precedents in their field (Dworkin, 2012; Palinkas et al., 2015). In my case, my research was constrained by the time restrictions and funding limitations associated with doing this research as part of my Master of Education program at Lakehead University. This program ultimately defines the scope of the research project and provides boundaries.

Each potential participant was approached through their publicly available email addresses or by email addresses that Carolyn provided (see Appendix A). I provided them with a detailed information letter outlining the project (Appendix B) as well as a consent form (Appendix C), which I will discuss further in the discussion of Ethics below.

Detailed participant descriptions. The total number of participants for the study was five. These five participants satisfied the participant criteria matrix. While I would have liked to

have more participants, given the shift in provincial government, time constraints, and expectations for a MEd thesis, this was a reasonable number to recruit. Below I provide a brief biography of each participant.

Catherine Parsonage is the Executive Director and CEO of Toronto Foundation for Student Success (TFSS). This organization has invested more than 22 million dollars to provide food, medical care, emergency funds, and after school programs to children in the Toronto District School Board (TFSS, 2019). The TFSS supports approximately 817 school and community-based student nutrition programs. Catherine has an extensive knowledge of how student nutrition programs are developed, what funding is needed for these programs, and has been involved in several research projects demonstrating the impact of student nutrition programs. Catherine's vision for student nutrition programming in Canada is one that is developed by local communities and that ensures nutrition, safety, health and food access for all children.

Ulla Knowles is the Senior Student Nutrition Community Development Coordinator at FoodShare in Toronto. Since 1985, FoodShare has worked with communities and schools to provide healthy food and food education to over 750 breakfast, morning meal, snack, and lunch programs across Toronto (FoodShare, 2019). Ulla has been involved with student nutrition programs for several years, as a parent volunteer when her children were in school and currently as a mentor and trainer for FoodShare's student nutrition community development team. In partnership with Student Nutrition Ontario, Ulla and her team provide on-site support for programs to ensure that students are well-nourished and ready to learn. Ulla is an advocate for universal student nutrition programming, coast-to-coast-to-coast, and for policy at the federal level that upholds nutrition standards and best practices.

Erin Beagle is the Executive Director of Roots to Harvest in Thunder Bay. Roots to Harvest facilitates food education within the community and in schools as well as offers employment opportunities for youth (Roots to Harvest, 2019). Erin has been working with her team since 2007 to build positive relationships in the classroom by using food as a common entry point to connect high school students with the food system. Their Get Fresh Café offers a new model for high school cafeterias where local Ontario produce is highlighted and cultivation of a school food culture emerges. Erin believes in student nutrition programs that are grounded in an individual school food philosophy and are supported by infrastructure at both elementary and secondary schools, including being backed by federal funding dollars.

Stephanie Segave is the Regional Manager for the Ontario Student Nutrition Program-Southwest Region (OSNP-SW). It administers provincial grants to fund and support over 480 student nutrition programs in the Grey/Bruce, Chatham, London, Lambton, Oxford, Elgin, Windsor, and Huron/Perth regions (OSNP-SW, 2019). Stephanie provides community-based tools and resources to support student nutrition programs in this region of the province. Stephanie has been in her role for 15 years and has direct involvement with program delivery including funding and nutrition education. Stephanie believes in universal student nutrition programming that not only provides food access to students, but also integrates food literacy, community kitchens, and local food production and infrastructure.

Joe Smith (pseudonym) is a Superintendent of a Board of Education in Ontario. Joe's portfolio of school effectiveness strategies includes programming in the areas of curriculum development, assessment and evaluation, strategic multi-year improvement planning, physical literacy and healthy eating, and much more. Joe has a considerable amount of expertise and experience in the field having built a career in education since 1991; he was a classroom teacher,

then an elementary vice-principal, and then an Assistant Superintendent of Education, before taking on his current position. The student nutrition program in Joe's portfolio teaches more than 650 children and youth about food literacy and is offered through a partnership with the public health services in his community. Joe's visualizes a universal student nutrition program that emphasizes food literacy, to which everyone has access and anyone can participate, that is designed to align with the federal and provincial goal of supporting healthier kids, and that supports infrastructure in schools.

Data Collection

In order to understand the educational approach to student well-being in Ontario, I first analyzed Ontario Ministry of Education documents that addressed student well-being strategies and frameworks, such as *Ontario's Well-Being Strategy for Education,* and *Achieving Excellence: A Renewed Vision for Education in Ontario*. Data collection through document review allows researchers to develop a narrative discourse on the research topic (Godin et al., 2015; Tremblay et al., 2018). Once this foundational understanding of the literature is obtained, researchers can then begin to think about their data collection strategies (Leavy, 2017). In my case, understanding these Ontario Ministry of Education strategies and frameworks helped me prepare for the participant interviews as well as assisted me in analyzing and interpreting the data.

Researchers hold power in the research process and must to be aware of this dynamic, especially when considering how participants might be influenced by the researchers' own opinions and beliefs (Romm, 2014). As a Master of Education student with a specialization in social justice education, I tried to be cognizant of various power relationships in my research project. Each relationship I am part of —whether with my supervisor, committee member, or

participants—has a different power dynamic. It is important to me that the research findings echo the perceptions and experiences of my participants rather than highlighting stories that fit my own interests or met the expectations I or my committee might initially have had. Thus I needed to build trust with my participants and be clear that I was not pushing my own agenda or that of my supervisor or Carolyn. Such trust is often mentioned as important for better understanding and making meaning of the lived experiences of their participants (Cooley, 2013; Mertens, 2010). Having made building relationships with my participants a priority, I acted in congruence with a transformative paradigm. Further, the transformative paradigm rejects the view that researchers should remain objective, but rather insists that researchers become critically aware of their positionality in relation to the research topic (Dominguez-Whitehead, 2017; Mertens, 2010) and work to establish respectful relationships with every participant in order to ensure validity (Noonan, 2015; Tremblay et al., 2018).

In a transformative paradigm, it also is imperative that researchers use a data collection method that is acceptable to participants rather than a method that is convenient to the researcher (Dominguez-Whitehead, 2017; Dworkin, 2012; Mertens, 2010; Tremblay et al., 2018). I conducted semi-structured interviews as my primary source of data collection because it was critically important for participants to feel that their voices and concerns were going to be heard (Dominguez-Whitehead, 2017; Romm, 2014). Similarly, Korzun and Webb (2014) and Noonan (2015) suggest using interviews as a method for data collection to access and represent perspectives and experiences most accurately. Many community-based research projects use interviews because they allow participants to share stories about their relationship with the phenomena (Dworkin, 2012; Noonan, 2015).

The interview questions in community-based transformative qualitative research are typically co-created with the researcher and a community member (Tremblay et al., 2018). Charles, Carolyn, and I collaboratively developed the interview guide (see Appendix D). A semi-structured interview helped to organize the conversation while also allowing participants to express their experiences and feelings. The interview questions were given to participants prior to the interview, to increase comfort and allow them to prepare if desired. The interviews ranged from 30 to 90 minutes in length. Two of the interviews were conducted in person and the remaining three were conducted via telephone. All interviews were audio recorded and I transcribed the interviews myself. Participants were given an opportunity to review transcripts, which I will describe further below.

Data Analysis

Although a transformative paradigm supports a community-based model where community members are consulted and active in the research project from the beginning to the end, it is also important to note that community-based research varies depending on the purpose of the study and the level of involvement community members want (Leavy, 2017; Romm, 2014). In my thesis, Carolyn was involved with the research design, participant recruitment, and will be involved in dissemination, but she was not involved in data analysis.

The interviews were transcribed verbatim and coded using NVIVO 11 analytic software. I analyzed the interviews for major themes, particularly around perceived outcomes of student nutrition programs on student well-being. Coding line by line through transcribed interviews, I specifically looked for “I feel” statements and “I have seen” statements that attribute participation in student nutrition programs with outcomes that impact student well-being. This process of sentence by sentence coding allowed for specific pieces of text to be assigned to a

theme or several themes. I then reviewed my major themes by re-searching the literature for relevancy. The process of reviewing the literature for a second time allowed me to dig deeper in the Ministry of Education documents as well as the research literature that addressed student nutrition programs and student well-being, to find similarities and differences between my research findings and the literature. Following the analysis phase, I discussed the thematic codes with Charles and Carolyn to ensure I had appropriately interpreted the interviews.

As noted, the interview transcriptions were sent to the individual participants to allow them to review their transcribed interview and make any edits if desired. All participants were satisfied with their transcriptions, and did not make any changes to their original transcript. This process, similar to member checking, also aided in confirming my interpretation of the interview. Member checking is recommended in qualitative research to increase the validity and reliability of the research (Leavy, 2017).

Ethics

Approval for this research study was granted by the Lakehead University REB. As noted above, each participant was approached by email (Appendix A) and provided with a detailed information letter outlining the project (Appendix B) and a consent form (Appendix C). Both the information letter and the consent form outlined that participation in my research was voluntary, and that participants would be able to withdraw from the project at any time as well as use a pseudonym if they wanted to remain anonymous. In the end, four of the five participants wanted their real name used and only one preferred to use a pseudonym.

It was suggested by the ethics committee that the information letters should also include a list of Ontario student well-being supports, such as *The Children's Help Phone* and *School Mental Health ASSIST.* That was not an unusual request given my research touches on food

insecurity, a sensitive and often stigmatized topic, and research with social justice implications often has to go beyond more standard ethical requirements (Dominguez-Whitehead, 2017). I agreed to include a list of five organizations that offer student well-being supports (Appendix E) in case any participant felt that they would like to know more about resources that support student well-being. This list was an important addition to the information letter and the consent form because it not only provided additional resources for participants, but also showed participants that I care about the well-being of students.

Making clear that there are benefits to participants in a community-based project is a guiding element (Mertens, 2010; Romm, 2014). Beyond the broader possibility of this research providing support for student nutrition programming in Ontario, specific benefits to participants included offering them a space through the interview to reflect on the impacts of student nutrition programs on student well-being. Having reviewed their interview transcripts could enhance that. As well, each participant was offered an electronic copy of the completed thesis that, if they read it, would allow them to learn about others' perspectives. Further, Dominguez-Whitehead states that, "the transformative paradigm views ethical research as research that does not merely avoid causing harm, but also promotes the well-being of participants and is concerned with their welfare" (2017, p. 561). This is one reason why I wanted participants to have the opportunity to review the interview questions prior to the interview as well as the right to refuse to answer any question. This helped minimize the minor psychological risk that might be felt if a participant found an interview question led them to speak negatively about an organization.

Limitations

Limitations included time and funding available given this research was conducted within a Master of Education program. These limits ultimately defined the scope of this study.

While I was able to travel to the *2018 Healthy School* Conference with financial assistance from Carolyn and Charles, no other funding was obtained for this research. Financial limitations also influenced how my data was gathered. While I would have preferred if all interviews had been conducted in person, I conducted some over the phone.

The scope of a thesis also meant that I did not speak directly to children, parents, or classroom teachers which would have been too big for a study of this size. Choosing to conduct research with student nutrition program coordinators and a superintendent was more do-able and still allowed me to gain important information since these participants could share their experience in working with many parents, educators, and students impacted by student nutrition programs.

The challenge of finding and keeping participants during my data collection phase was impacted by the political tensions created with the election of the new PC government. Although participant recruitment was more challenging and took a lot longer than I anticipated, I also was able to gain insight into how political changes in government can impact programs such as these.

In the end, all of these limitations assisted in bounding my research project. I would love to continue this research in the future if the opportunity presents itself, however, I am proud of what I have been able to accomplish in partnership with my supervisor, committee member, community member, and participants.

Chapter Four: Findings

Introduction

It's the first day of school following winter break. After grabbing your travel mug of coffee, you slip on your running shoes to head over to the school at 7:00 am. You are the program coordinator of a student nutrition program at your local elementary school. As you pull into the parking lot at 7:30 am, you see some parents waiting in their cars to drop off their children. You are the first face they see at the school, since most teachers won't arrive for another 20 minutes to begin morning supervision at 8:00 am. You greet the students with a welcoming smile and a quick "good morning." Thankfully two of those parents dropping off their children are volunteers for the breakfast club. The other parents have already left the school parking lot to continue their commute into work. As you start setting up, you realize that there might not be enough food for every student to have a full meal. Thus you make a decision to serve half portions to make sure that every student can participate in the program. The reality starts to sink in that at this halfway point in the school year your grant funding is running low and you are beginning to rely more on donations to ensure there is still food coming into the breakfast club. It's now 8:00 am. Students are starting to trickle into the gymnasium. "Good morning, Michael." "Good morning, Theresa." You've made the effort to get to know all the students by name. For you, the program is about much more than serving apple slices and yogurt. It's also about creating a safe and welcoming environment. You are trying your best every single day to help your school community. You hope that with more funding you can run the breakfast club every day next school year rather than twice a week.

The narrative above is fictional, but based on a synthesis of the experiences shared by my research participants. In the story, the student nutrition coordinator is tasked with organizing, preparing, and coordinating the breakfast program. Some students rely on the program as their only source of food in the morning because their parent or guardian is rushing off to work. This reality means that the coordinator might be the first adult interaction the student has that day. In preparing the breakfast meal for the students, they have to adapt their strategy given funding constraints by serving only half portions in order to deliver the program to all the students. The coordinator reflects on the impact that the student nutrition program has within the school community. As a role model, the coordinator has made the effort to learn the students' names and create a safe environment for them to share a meal. Although student nutrition programs in Ontario vary, this story serves as an illustration of the findings that will be discussed in this chapter.

I have divided the research findings into three themes that emerged from my analysis of the data. The first theme, importance of and need for student nutrition programs, discusses how funding and community support has impacted program availability and frequency. The perceived impacts of student nutrition programs on school environments and student learning is the next theme. The third theme focuses on barriers and challenges in designing and implementing student nutrition programs and highlights the difficulties in navigating inconsistent funding, varied infrastructure in schools, and changing political climates.

Importance of and Need for Student Nutrition Programs

All participants agreed that student nutrition programs play an important role in improving food access for students. The increasing number of student nutrition programs across the province indicates the persistent need for these programs and the recognition of the support

that these programs provide in improving food access in school communities. In this theme, I discuss two topics, the growth of programs in the province and food access, that demonstrate the importance of providing nourishment for students so that students are nutritionally sustained in order to have a productive school day.

Growth of programs. According to the participants, the growth of student nutrition programs across the province has been an essential support for student well-being. Since programs are not provincially or federally coordinated and there are several organizations that contribute to student nutrition programming in Ontario such as The Ontario Student Nutrition Program, Student Nutrition Ontario, FoodShare, and the Canadian Red Cross. Therefore, it is impossible at this moment to determine the exact number of student programs available in the province of Ontario. According to research participants, the growth in the number of programs can be attributed to increased funding and community support. Additionally, an article in *Children's Health and Safety Association* addressed the expansion of student nutrition programs in Ontario, attributing it to addressing poverty and the effects it has on low income families (Bradley, 2014).

Program funding, specifically from municipal grants, has increased in some regions of the province. Ulla from FoodShare expressed that in Toronto, "it's almost $50 million annual in the 2018 budget for student nutrition, and that came from $150,000 in 1991. We have grown significantly from eight programs to 832 programs, from about 4,000 kids, to now more than 208,000 kids." All participants shared that student nutrition programs across the province have typically originated as pilot programs, with grants from municipalities, school boards, or organizations like The Greenbelt Fund and the Canadian Red Cross. The Ministry of Health and Long-Term Care, the Ministry of Children and Youth Services, and the Ministry of Education

also were mentioned by participants as providing funds for student nutrition programs. Another program mentioned was the Healthy Kids Community Challenge that is implemented by Public Health Ontario. Joe shared that "the Healthy Kids Community Challenge provided funds to cities across Ontario who applied through public health for money to support healthy kids… [it] allowed us to apply for a grant to run this program." In Thunder Bay, programs have received funding from other non-profit organizations. Erin explained, "the idea to do local food meals in schools was also kick-started by seed funding from FoodShare…and then it became, because of the new funder, it was evolved to local Ontario food because of [the] Greenbelt [Fund]."

Both Erin and Joe commented on the tensions that can arise between what the funder may want versus what coordinators desire. Indeed, there is an inherent power relationship in place because who is funding the program influences how the program will be structured, which can either support or hinder the intentions of the program coordinators. Joe shared that their focus has shifted over the years because public health was involved in the funding of his student nutrition program: "For example, this particular initiative, we got funds for theme three and theme four. Theme three was called 'choose to boost veggies and fruit' [increased consumption of vegetables and fruit in every meal and snack], and theme four was 'reducing screen time' [replacing screen time with activity]." Because of the grant structure, the student nutrition program had to meet these specific outcomes. Joe commented that there was a considerable amount of strategic planning involved to fit with the specific themes and meet desired outcomes, while still achieving the mission of his program which "was to educate 1,000 children about healthy eating and healthy food systems in a fun and interactive way, empowering them to continue healthy eating and food preparation in their home."

Increased community support also has helped student nutrition programs across the province. All participants noted that over the years there has been increasing public support and awareness of issues such as food insecurity and food literacy. Erin shared that bringing local food into the schools in Thunder Bay started with conversations at the school board level with interest from parents, educators, and the local food community. Joe shared that his grant funding supported collaboration with public health nurses and registered dieticians who support meal preparation and communication. Stephanie identified that community engagement can also be modelled in student nutrition programs: "when programs do engage the children in prepping their food and delivering the food, it is a great primer for community service and giving back."

All participants felt that perceptions about student nutrition programs are changing in school communities. Catherine has found that there are fewer teachers and administrators who would not support a student nutrition program in their school. She argued that this is because once an educator witnessed the impact that a nutrition program had on student behaviour and academic success in the classroom, educators perceived that the well-being of their students improve. Additionally, Catherine shared that when educators with experience with student nutrition programs were transferred to a new school, they would reach out to her organization to get one started in their new school. Further, she stated,

> Nutrition programs in schools are a lot of work. They are a lot of work for administrators, they are lots of work for parents, they are lots of work for volunteers, they are a lot of work for caretakers. But I'll tell you this, if it wasn't a key support for students, they wouldn't exist because the school office wouldn't do it, the teachers wouldn't be buying extra food, the caretakers wouldn't clean up the apple cores, the

> volunteers wouldn't be coming in at 7:30 in the morning. The reason there's so many programs, and they keep growing, is because they see a need in their community.

This comment illustrated well that although student nutrition programs require a considerable amount of time and effort, they are important and their ability to support student well-being is being recognized.

Food access. Participants described two rationales to explain how student nutrition programs support food access. First, poverty is a reality for many students in Ontario. Second, the majority of a child's day is spent in school. Therefore, participants argue that increasing the number of student nutrition programs in schools can help a greater number of students have access to food. Catherine commented that there is still a high portion of children in Ontario who live in poverty. According to the 2016 Canadian Census, nearly one in four, or 1.2 million children, were living in a low-income household (Statistics Canada, 2017). According to the 2018 Hunger Count data, Food Banks Canada reported that in March of 2018, children accounted for 105,073 of the 323,931 visits to food banks in Ontario (Food Banks Canada, 2018).

Participants strongly supported the idea that student nutrition programs support food access. Erin stated, "food is a poverty thing, and poverty has so many more implications as kids get older, so let's just get rid of the one, just don't worry about food, we got it." Joe described an "equal opportunity school" for kids in his district who are living in areas with greater socio-economic challenges. He said that when the student nutrition program ran in that school, it directly reduced the impact of poverty in the lives of students by increasing their access to food. Erin added that students depend on student nutrition programs, "we see that in the summer and during Christmas and March break, when there are no student nutrition programs in elementary

schools or high schools, those are bleak days for those kids, and nobody is looking out for them." Erin and Stephanie both discussed the need for year-round programming and saw potential in piloting these.

The academic benefits of mitigating the impact of poverty are obvious to participants. Catherine observed through her research that "when children and youth are going to bed without having supper and not being able to sleep, we have children that are lethargic, children that are sleepy, children that don't have the energy to participate." Similarly, Ulla shares that there is "a large issue with trying to make a complete and seamless day for children. Children who didn't eat or weren't fed could not learn." Ulla expressed that FoodShare's position is "that hunger does not stop at age 12. In fact, it was probably much more prevalent in high schools but hid itself really well, because youth are much less likely to self-identify. A little child will say 'I'm hungry'… We advocated for the fact that we felt that where programs were running in secondary school, these kids were in just as much need, if not more."

The fact that the majority of a child's day, from age 4 to 18, is spent in school was also mentioned by participants as an important motivation for having a student nutrition program available to students in school. Indeed, all participants argued that every child should have access to a meal at school. For example, Catherine said:

> When we give a child a good breakfast every single morning, that child is ready and able to learn and to participate fully in their day. If we give them a snack before recess, they go out into the playground and there are less incidents of kids fighting, or pushing, or shoving, and they are actively moving around the school yard.

Catherine also mentioned that she found in a previous project that when children have access to a breakfast at school every day, absenteeism decreases. This echoes what Erin and Ulla

shared about how a student nutrition program can encourage a student to come to school. They found that even the opportunity to access food at school is the reason why students walk through the doors, that it is the food that brings the student into school in the first place.

Impact of Student Nutrition Programs

The second theme that emerged from my analysis is the impact that student nutrition programs have on the school community and student learning, which was foreshadowed in the previous section. All participants shared stories of how the student nutrition programs that they coordinate are embraced by educators and impact students by creating welcoming school environments, building student relationships through food, and addressing components of student well-being.

Impacts on school community. All participants talked about the ways student nutrition programs impact a school community. The feeling of belonging to a school community can be impactful in terms of meeting the social and emotional needs associated with student well-being.

Ulla stated that student nutrition programs provide opportunities for all students to come to a space where everyone is seen as equal, without the labels of jock or academic for example, but simply as students eating around the same table;

> …because it doesn't just address the need for food. It's the sense of belonging, it's the sense of everybody is equal, everybody can participate. It's an equity thing. It's an opportunity where everybody fits in, everybody eats at the table, everybody is [seen as] the same, and everybody can belong…I think it's just learning and respect and appreciation for each other.

All participants agreed that student nutrition programs must be universal, that is, that all students can participate so that no one is singled out, which is imperative to helping reduce the stigma about accessing a nutrition program.

Both Ulla and Stephanie said the programs create a safe place where students can feel a sense of belonging in their school community. As an example, Catherine shared a story of how students with multiple exceptionalities felt valued in the school community because of their involvement in their school's student nutrition program. For example, these students had the opportunity to deliver food to classrooms, which helped their integration into the school community as well as enhanced their organizational and social skills. Joe shared a story from the perspective of the chef in his program when a child came up to the chef and said that the opportunity to get together with their classmates at the nutrition program was really the first time the child had been able to interact in both a large group and small groups with other kids in the school. Indeed, Joe and Stephanie said that these programs are important because they provide opportunities to make new friends and enhance a sense of belonging in school. This may be especially important when schools serve diverse communities. Ulla believes that sharing food can break down barriers in a school environment by allowing students to share their cultures through food, they can learn to appreciate differences and similarities. As Catherine explained, "the sharing of food in every culture of the world is an act of friendship, honour, respect, and happiness."

Besides connecting with one another, these programs can also help connect students to food itself. Ulla shared that in some programs, like the field to table schools that FoodShare supports, "you're teaching kids how to embrace food, to learn about food. It's not something that's just served to you, it's something that they helped create, something that they might have

grown, something that they then harvested and prepared." Similarly, Erin expressed that students not only build relationships and friendships through participating in student nutrition programs, but in the Roots to Harvest "Get Fresh Café" program, students build a connection to food by learning how to prepare food and understanding how ingredients come together to make a meal. Erin said that her team is always thinking "about making relationships with kids…But there is always explicit instruction about what do we get from fresh, what are the skills we can take with us as we move on, how do we celebrate with food, and how can we appreciate our bodies with food."

However, Erin added that, "when student nutrition programs come into schools, they need to be thought out more fully. It's more than just food." For instance, Erin thinks that student nutrition programs need to consider who serves the food, and how much time is delegated to eating in the school environment. Stephanie considers similar issues as Erin, and also recognizes that how food is consumed in schools can sometimes detract from student well-being, noting that kids often eat in hallways and shovel food into their mouth on their way out to recess. Both Erin and Stephanie provided insight into why considering what kind of environment typically surrounds food in schools in important.

Ulla noted how schools with health action teams look at student nutrition programs as a "component of health promotion [in] schools and a health promoting environment." Further, Stephanie, Joe, and Erin all suggested that in order to build a healthy school environment, changing the food culture and the food environment in schools is critical. They observed that just because a student nutrition program is in a school does not mean it that the school environment is automatically impacted. Instead, Erin believes that a school needs a school food philosophy to articulate what food is available in the school, and how food is used in the school. By

intentionally defining the school food culture, Erin, Stephanie, and Joe believe that student nutrition programs can have a greater impact in building welcoming and supportive school environments by bringing people together around food.

That community includes parents too. Catherine shared that student nutrition programs impact school communities from a parent's perspective as well. Catherine explained that in one of the programs she oversees in a very challenging neighbourhood, the mothers came together to volunteer. She recalled that there were ten to twelve women sitting around a long table cutting strawberries and making carrot sticks. No two women spoke the same language. They were communicating through charades, laughing, and enjoying themselves. Catherine said that these women could have been socially isolated in their homes, but instead they were brought together through their mutual understanding of the importance of feeding a child and preparing food and in the process, they were establishing new friendships. Further, as new Canadian students adjust to a new school environment and system, seeing your parent in the hallways can be comforting. These parents can become school community leaders. Thus Catherine believes that "there is a much better understanding about the larger social and mental health and well-being, there is a larger understanding of how these programs are being much more inclusive and being parent engaged and [encouraging] parent involvement." Like Catherine, Stephanie also is located in a highly multicultural city and she shared similar stories about the impact that student nutrition programs have on parents who feel isolated in a new country, and the parent's ability to practice their English through helping prepare food for a school nutrition program.

Impacts on student learning. All research participants shared anecdotes about how student nutrition programs are becoming increasingly accepted by educators because of how these programs have impacted their classrooms and student readiness to learn. All participants

described a shift they have witnessed in the field of education towards accepting student nutrition programs which was described in the first theme in this chapter around the importance of and need for student nutrition programs.

Joe said that he has continuously received positive feedback from administrators and teachers once a student nutrition program is implemented in a school. Based on his extensive experience as an educator, a student nutrition coordinator, and currently as a superintendent, Joe has found that others are now recognizing that "schools are ideal settings for children to build food skills, where lessons can be linked to curriculum, that are reinforced by healthy school environments, and supported by home and community partnerships." Erin, Stephanie, Ulla, and Catherine also shared that their student nutrition programs are largely accepted, embraced, and welcomed by educators and administrators in schools.

Joe believes that learning is most impactful when it is hands on and student nutrition programs can provide such opportunities. Joe noted that when students are active in their learning—for example, given the opportunity to learn about food preparation and cooking—they are excited and actively engaged in the classroom. In Erin's programs, she described that the "time in the classroom to prepare the food is an opportunity to come together, to be interactive, to be experiential, for us, it's where we see kids turn the light back on." Ulla and Catherine stated that they promote the programs to teachers by explaining how they can incorporate it into the curriculum as a food literacy and experiential learning opportunity. For instance, Ulla shared a story about how an educator in one of the schools embraced their student nutrition program by creating a "math salad" as a way of teaching fractions to grade three students, after which the whole class shared the salad together as an afternoon snack.

Ensuring students have the ability to be fully present in the classroom also was named by participants as an indicator of the impact of student nutrition programs on student learning. Catherine shared that student nutrition programs "give them the building blocks so that every child is ready to learn and can make the most of their day, because even the best teacher in the classroom, with the best pedagogy, can't teach a hungry child." Both Ulla and Catherine obtained feedback from teachers who shared that they had noticed a huge difference in students from having a program in the school, describing students as being more perky and focused.

Indeed, all participants agree that student nutrition programs are a good tool in assisting students to be at their best for learning. In Joe and Ulla's experience, this is because students who come to school with an empty stomach are thinking of the grumbling in their stomachs rather than focusing their concentration on what they are learning. Ulla shares that, "if you have good nutrition in the classroom, you have something that settles you and sustains you, and you're ready and open for learning. You cannot be focused if you are hungry." Catherine and Ulla shared that students who are not hungry are better able to learn and fully participate in their day rather than falling asleep in class, being inattentive and unable to concentrate, listen, process, and retain information, work independently or in groups, demonstrate conflict resolution, or engage in self-regulating behaviours. Further, Joe stated that it is important for students themselves to see the relationship between healthy eating and their own success.

Catherine concluded that:

> ..our most important project is student nutrition because a hungry child cannot learn, a hungry child cannot play, a hungry child cannot participate and cannot engage, and a hungry child cannot take advantage of all the opportunities in their day. We feed them, that's our foundation.

Erin agrees that "student nutrition and interactions with these food programs have a role to play in the success of some students," although she cautions that food itself does not do that just on its own. Instead she reminds us that it is the delivery of the student nutrition program that explicitly makes the difference.

Challenges in Designing and Implementing Student Nutrition Programs

The third theme that emerged was the variety of challenges in designing and implementing student nutrition programs. Each research participant discussed challenges they face on an individual level as well as the larger systemic barriers that are part of the student nutrition landscape, including those associated with organizing volunteers, meal planning, and structuring the program with inconsistent funding. In this section, I will discuss the three most prominent obstacles mentioned by participants: funding, infrastructure, and political climate.

Funding. Inconsistent funding was identified as a significant issue by all participants. Erin and Joe both stated that grant funding determines what they can offer and thus the outcomes of a student nutrition program. For example, Joe shared that because provincial funding for the Healthy Kids Community Challenge was recently halted, he now is looking to his school board to see if they can provide funds to support the student nutrition program. Ulla has heard from administrators who wanted a student nutrition program in their school, but "unless they started under their own funding, or received funding elsewhere, it is very limited right now." Stephanie agrees that funding is limited in the current political landscape in Ontario and that, for her, funding is the biggest limitation she has experienced. With more investment from the provincial government and more community partners, Stephanie argues that student nutrition programs could have great capacity to impact student well-being.

When provincial, municipal, or other funding is inconsistent, as it is now in Ontario, Ulla explains that student nutrition programs find themselves relying on fundraising to meet the program's needs. Yet fundraising is an unreliable financial source because it is irregular in terms of timing and amount when donated. Further, the messaging of fundraising initiatives can sometimes be problematic in perpetuating the poor, hungry student. Ulla noted that:

> … groups out there that raise funds specifically for student nutrition show you the poor child, so that's now what the general public sees. And when the large Coca-Colas of the world donate lumps of food, that's another big problem. They come from a good place, but it's also food that is close to expiring. It's easier, and it's cheaper to donate to a program sometimes and they don't necessarily meet the nutritional needs, are not the best things, because they all go through a poverty look.

Catherine adds another perspective to the problem of donated food, noting that with limited funding, student nutrition programs sometimes rely on donated food that is not lactose-free, nut-free, or designated halal products. Although this donated food might not be nutritionally appropriate nor inclusive from dietary or cultural perspectives, it is accepted to mitigate limited funding.

Another alternative funding strategy is to seek funds from non-governmental organizations. Ulla suggests that "more funding is needed for something like The Coalition for Healthy School Food" which is a network of over 40 member organizations that advocate for federal government investment in a cost-shared national universal school food program (CHSF, 2018) "because they are truly representative and are the voice across Canada because they have so many different stakeholders and have remained true to themselves." All participants agreed

that financial support of this sort needs to be expanded, which would allow for ongoing, sustainable funding of student nutrition programs.

Infrastructure. All participants have found that the current infrastructure available in schools does not support program implementation, which negatively impacts the design and organization of their student nutrition programs. Stephanie describes the lack of infrastructure in schools as the second biggest limitation, after funding, that she witnesses in her work coordinating her region's student nutrition programs. While some schools may have facilities like school kitchens, many do not and this lack of equitable infrastructure demonstrates that school food programs are not a priority for the Ontario Ministry of Education. Ulla explained that student nutrition programs look very different depending on school facilities. Teachers have shared with Ulla that they feel personally responsible for their school's student nutrition programs because "there isn't the supports in place in the schools for it and they feel like their hands are tied."

Catherine argued the need for policy change to support infrastructure in schools. She explained that when a new elementary school is built in Ontario, there is no funding allocated for a kitchen to support a nutrition program: "there is no per square foot funding, and that's why you find these programs operating out of converted changing rooms beside the gymnasium or the stage… It's ridiculous that when they are building a new school, that they can't build in the plumbing." While Erin understands that old schools will not necessarily receive financial support to invest in building a kitchen, she agrees that for new school builds, a kitchen should always be included. Without explicit policy that directs such funding allocations when building new schools, school boards find themselves responsible for coming up with the funds for building a

kitchen, which in most cases, would mean compromising something else that they might value more.

In order to mitigate the limited infrastructure in schools, some student nutrition programs have received donated kitchen appliances. However, Catherine shared that:

> … hardly anyone donates equipment. There is no sustainable source of equipment, not from the schools, not from the Ministry of Children and Youth Services. That is a huge limitation because even if you get equipment, it is the installation costs. This is a real problem because it not only impacts the variety you can serve kids, but what you can actually do. This means that if you don't have the right equipment, you are limited to granola bars, and juice, and processed foods. Everything needs to be pre-packaged.

Ulla also commented on the expense of having commercial fridges and dishwashers in schools. Ulla argues that with consistent federal funding, student nutrition programs in Ontario could have more consistency in facilities as well as money for supportive retrofits rather than relying on a patchwork of inappropriate spaces like old change rooms and donated appliances.

Participants agree that investment in infrastructure is critical to the success and sustainability of student nutrition programs. Erin shared:

> … programs that the government is trying to bring in, like the fruit and veggie delivery projects, on the surface, it is addressing the food access need, but in its delivery, it is failing for so many reasons. There is no infrastructure at the schools to receive fresh food, and there are no people at the schools to process that food. You can't just bring in crates of bananas and expect it to deliver itself, or crates of honeydew melons. The SSPs [Student Support Persons] are needed for students, and should not be preparing that food. We don't invest in food the way that students deserve. We can't say look at all these fresh

> veggies and fruits in schools without thinking about all the students who didn't get their morning SSP time because the SSP was too busy packing cherry tomatoes.

All participants agree that if schools invested in having kitchens and dedicated staff to work in them, then student nutrition programs would be far more sustainable and effective.

Joe shared another perspective on why investment in student nutrition program infrastructure is needed. He argues that there is a need for children to learn how to cook because parents with busy schedules often rely on prepared and convenience foods and do not have time to teach their kids to cook. The normalization of prepared and convenience foods can impact the healthy eating of Canadian children, he feels, and is a strong justification for schools to have the infrastructure so that they can teach food literacy. Joe added that without mandatory food skills education in the curriculum any longer, even schools that once did have home economics classrooms have redesigned or converted these spaces, sometimes just into storage.

Political climate. Student nutrition programs are impacted by political climate and can be affected by a change in government if they have different views than the previous government. Student nutrition programs thus need to be adaptive.

As one example, the previous Ontario provincial government had perceived student nutrition programming as a poverty reduction tool. Thus Ulla and Stephanie shared that student nutrition programs in Toronto have been typically implemented on a needs-based approach and funded through the city's poverty reduction strategy. Ulla expressed:

> The province in 2008 and then again in 2012-2013 rolled out massive amounts of money throughout the province, to the tune of about $33 million annually. It is still through the Ministry of Children and Youth Service—and we thank them for it, we really do—but it

> is still through a poverty reduction lens and totally a part of their poverty reduction strategy.

This approach reproduces the narrative around poverty and does nothing to reduce the stigma associated with these programs. In Ulla's experience, some of the students who really needed the program were feeling labelled and withdrew, especially in older grades. Indeed, Ulla and Erin both expressed that when a teacher or administrator decides if a student can come into the nutrition program, the stigma of poverty is front and centre. Ulla and Stephanie believe that these programs are still perceived through a poverty lens by the general public. As Ulla stated, "we've done the poverty thing for so long because that's what grabs people's hearts." Instead, Joe suggested that Ontario needs to focus on creating and fostering healthy living schools, of which student nutrition programs would be a critical component.

Ulla recalls what was then a controversial move by former provincial Premier Kathleen Wynne in 2015 when she made a decision about access to student nutrition on reserve schools and fly-in communities. Ulla thought that was a pivotal moment for student nutrition programming in Ontario and that Wynne showed real leadership in, crossing from provincial into federal jurisdiction. In the spirit of motivating action by other elective officials, Ulla stated, "I think part of this piece is getting every MPP, MP, city or town councillor, school board trustee into a program without cameras, without the reporters, and get them to see why it's amazing." Ulla, Catherine, and Stephanie all believe that showing the government and school leaders a true representation of what a student nutrition program is in various communities is important. Further, Erin and Catherine believe that in order to change the political climate, advocates must start working in local communities to change the narrative about student nutrition programs,

moving away from a poverty reduction lens. Doing so would make it easier to advocate on the federal level.

Ulla also suggests that it is important when showcasing these programs that program coordinators be honest and realistic. As she said, it is not about showing off the perfect program, it is about being authentic. Ulla shared a story about having a city councillor and a school trustee visit the program when the program was not able to serve full portion sizes in line with nutritional guidelines. When the counselors asked about why they were not giving students full servings, Ulla answered honestly by explaining the challenges she was facing and also outlining the ways in which the councillor and trustee could help.

All research participants suggested that it is time for collaboration across government ministries to support student nutrition programs. According to Stephanie, one of the biggest challenges for student nutrition programs in the current political climate is that one of the Ministries needs to "own" school food and provide leadership in ensuring Ministry collaboration. Both Erin and Catherine identified the Ministry of Children and Youth Services as currently being a leader that collaborates with the Ministry of Health and Long-Term Care and the Ministry of Education. Joe also mentioned the importance of public health agencies. He described a challenge in the current political climate where public health nurses are no longer assigned to each school. He believes this creates a challenge for schools and teachers who do not have food knowledge to deliver and implement successful student nutrition programs, and he would like to see those collaborations reinvigorated.

Another challenge mentioned by Catherine and Erin identified was how to stay focused. They noted that how easy it is to get caught up in other areas in the food movement such as organics and agricultural practices, but they recommend remaining focused on the impacts of

student nutrition programs to ensure that the issue does not get lost in the midst of government and policy change. According to all participants, another part of the big picture that needs to stay in focus is that framing food access issues as part of social justice conversations.

Conclusion

In this chapter, I used an introductory narrative and divided the chapter into three themes to represent my data. The first theme of the chapter, the importance of and need for student nutrition programs, describes how the increase in student nutrition programs has increased access to food for students in schools. The second theme outlines the participants' perceptions of impacts of student nutrition programs on school environments and student learning, including building of school community, helping students be fully present in classrooms, and the increasing interest educators have in these programs. The third theme focused on challenges participants identified including funding, infrastructure, and the political climate. The goal of this chapter was to share with readers the perspectives of those coordinating student nutrition programs, with anecdotes grounded in their experiences helping to bring various issues to life.

In the next chapter, I will discuss how my research findings point to the potential impacts that student nutrition programs have on student well-being. Additionally, I use my research findings and the literature cited throughout the thesis to discuss the future of student nutrition programming in Ontario. I conclude by outlining three recommendations to better support student well-being through student nutrition programs.

Chapter Five: Discussion and Recommendations

In this chapter, I draw on the data presented in my research findings and my literature review to reflect on my research questions. I begin by discussing the impacts of student nutrition programs on student well-being. I explain how both the school environment and student learning are impacted by student nutrition programs, and how these two elements effect the domains of student well-being. Then, I discuss the future of student nutrition programs in Ontario. I demonstrate that the lack of student nutrition programs and student well-being policy as well as changing political contexts influence the implementation and sustainability of these programs. Here, I provide evidence from my research findings and my policy document review to make connections to the literature discussed in my second chapter. Following this discussion, I offer three recommendations: 1) Establish universal student nutrition programs coast-to-coast-to-coast; 2) Strengthen intergovernmental collaboration and leadership; and 3) Create a community food security pilot project. Finally, the discussion and recommendations in this chapter indicate that more research is needed in the field of student well-being to investigate the impacts of initiatives like student nutrition programs.

The Impacts of Student Nutrition Programs on Student Well-being

My first research question was: *What are the perceived impacts of Ontario student nutrition programs on the development of elementary and secondary student well-being?* To answer it, I discuss how school environments and student learning are impacted by student nutrition programs. The literature review illustrated that student experiences in schools affect their academic achievement, mental health, social relationships, and physical development. These four domains of student well-being can be impacted by participating in student nutrition programs.

As stated in the literature, schools have been recognized as excellent sites to promote positive well-being for children and youth (Korzun & Webb, 2014; OME, 2013; Short, 2016). Specifically, Short (2016) found that student well-being initiatives that contribute to positive school environments help develop social-emotional skills required for leadership, collaboration, and coordination. In my research interviews, participants echoed these findings. All participants witnessed students involved in student nutrition programs building relationships with their peers. Student nutrition programs can be a catalyst for those bonding opportunities by allowing students to feel welcomed and accepted in a school environment.

A perceived feeling of belonging is another important way that student nutrition programs may meet social and emotional needs of students. All participants mentioned that participating in a student nutrition program is a social act that facilitates a sense of belonging. They also assert that fostering an environment that is welcoming and accepting is an intentional part of the design of programs. For example, as noted in the previous chapter, both Ulla and Catherine mentioned that programs need to be facilitated by caring adults. However, while the social environment is recognized as an important indicator of student well-being, school environments can also become a barrier if they perpetuate stigma associated with poverty. This is why the most important design element named by all participants was the need for student nutrition programs to be universally accessible to all students to reduce any stigma around participation as well as to allow students from all socio-economic backgrounds to share a meal together. The importance of building positive and supportive relationships in schools helps to improve students' self-perception, feeling of safety and inclusion, and ultimately improves the school social climate (Kutsyuruba et al., 2015; Saab & Klinger, 2010; Vine & Elliott, 2013). It is evident through the experiences shared by my participants that student nutrition programs have

the potential to enhance the school environment by creating an opportunity for students to build relationships with their peers and feel like they belong in the school community.

Supportive school environments contribute to academic achievement and student well-being (Saab & Klinger, 2010; Vine & Elliott, 2013). Student nutrition programs can impact student learning by addressing the physical and cognitive needs of students (Allison et al., 2016; Brymer et al., 2012; Koch, 2016). All participants agreed that in order for students to learn, they need to be attentive and engaged. For example, Joe, Ulla, and Catherine all identified that when students are hungry they are not fully present, but more focused on their grumbling stomachs or sleeping in class instead of engaging in classroom activities. All participants mentioned that eating well means that students are nourished and sustained for the day. Thus student nutrition programs can assist with the physical well-being of students by providing nutritionally appropriate foods to help students make the most of their learning opportunities throughout the day, whether in the classroom, gym, or playground.

The literature reviewed in chapter two indicates that there is a general lack of understanding of the importance of food and eating together (Nanayakkara et al., 2017), thus there is a need to teach students how to grow and cook food as part of food literacy education (Koch, 2016). Food literacy seeks to build an understanding of food and food choices from ecological sustainability, health, and social justice viewpoints (Koch, 2016). Participants acknowledged that although they may not be the primary facilitators of food literacy education since that is a role of teachers, student nutrition programs nonetheless offer a critical space for hands-on learning opportunities to connect to curriculum. Therefore, schools could enhance the academic achievement of students by building collaborative partnerships that support student mental, social and emotional relationship building, and physical well-being within the school and

the broader school community. All of my research participants stated that there are tremendous opportunities to support student well-being through student nutrition programs if the funding, infrastructure, and policy were accessible.

To conclude this section, Ontario student nutrition programs do have the potential to impact all four domains of student well-being. The social and emotional well-being of students can be improved by universally available student nutrition programs that foster environments where students can build friendships and feel like they belong in the school community. There are also opportunities to address the physical and cognitive well-being of students by providing access to food in schools to help students be fully present during the school day and by offering nutrition education that is hands-on as part of food education the school is already (or could be) offering. I think Ulla summed it up best when she said, "the social, the emotional, the cognitive, the physical, the educational needs of the child can't be addressed if just one piece of the other pieces of the puzzle are missing." When student nutrition programs are designed with that intention in mind, they provide an opportunity to better support student well-being in schools.

Future of Student Nutrition Programs in Ontario

My second research question asked: *What role, if any, does policy (i.e., provincial or federal) play in the development and implementation of student nutrition programs?* In order to answer this question, I discuss how student nutrition programs in Ontario are influenced by policy, how changing political contexts can disrupt student well-being policy, and how these could impact the future of student nutrition programs in the province.

Three motivations have been identified as typical precursors to the development of student nutrition programs. The first focuses on improving food security among children and youth while the second is concerned with the alleged rise in child and youth obesity and how

these are interpreted as an indicator of food quality (Godin et al., 2017). The third considers the potential impacts of food and food-related school activities (Contento, 2015; Godin et al., 2017; Simmons et al., 2015). The second motivation for program development is very common today as governments and organizations develop policies to address food quality such as junk food bans and changing the food choices of students at the individual level (Leonard, 2017; Oostingjer et al., 2017; Orava et al., 2017). All of my participants mentioned that PPM 150—The *Ontario School Food and Beverage Policy (2010)*—that outlines the nutritional standards for food and drinks in schools is not consistently followed. For example, Erin provided an example of a homemade chili recipe that would not meet the standards of PPM 150, but is made with local healthy food. All participants agreed that although nutritional guidelines and standards are necessary for providing some consistency across the province, school communities should be allowed to incorporate food into their student nutrition programs to best meet the needs of their particular students. Further, participants mentioned the need to have food in student nutrition programs that are inclusive of the diversity of students in Ontario such as providing vegetarian, vegan, and halal options. Thinking of school food in this way is more aligned with the third motivation for program development.

All participants also agreed that student nutrition programs have been designed primarily as a poverty reduction strategy for too long and that a health promotion policy needs to be adopted instead. A health promotion approach to student nutrition programming would take a proactive rather than reactive approach to the health and well-being of students. If student nutrition programs continue to be designed from a poverty reduction lens, the stigma of using an assistance program remains and these programs perpetuate the narrative of that these programs are only for poor students. By providing universally accessible and free student nutrition

programs for all students, governments would be investing in the health and well-being of students by ensuring that every student has access to healthy food in school.

Further, designing student nutrition program policies to include nutrition standards and community food security recommendations could help improve program consistency across the province. This type of policy could include nutrition standards for the food available in the student nutrition program as well as outline connections between the program and the community to support food security which might include a shared community garden that provides access to food for a school and other community members. Participants also asserted that adopting a health promotion lens could improve the well-being of students through increasing partnerships with public health units and others, which would also support a community food security approach and make the programs more sustainable.

My research findings indicate that the student nutrition program landscape in Ontario can be unsustainable due to inconsistent funding, varied infrastructure, and changing political climates. It was clear to me from the literature that without adequate funding and infrastructure these programs cannot function (Morgan & Sonnion, 2008), but I was surprised to learn how changing political climates impact student nutrition programs and, by extension, student well-being development and implementation. All participants noted how changes in government at both the provincial and federal levels have effected program development and implementation. Specifically, the recently elected Progressive Conservative government has drastically cut funding for a variety of sources that had been accessed to support student nutrition programs. For example, Joe mentioned that he now is looking to his school board and community to continue supporting his program. Similarly, public health units across the province are suffering from drastic cuts to their funding which impacts student nutrition programs that are run in partnership

with these units. These cuts matter because all participants noted that a portion of their funds comes from the provincial government and partnerships with local public health units. Another problem arose with the recent change in provincial government. The *Ontario Well-Being Strategy for Education* resource (2016) is no longer publicly available on the Ministry's website.

Student nutrition program development and implementation can also be impacted by policy at the federal level. For instance, the 2019 Federal Budget designates a proposed investment of $134.4 million over five years for the development of a *Food Policy for Canada,* (Government of Canada, 2019). There are four proposed action areas in the *Food Policy for Canada* including: 1) helping Canadian communities access healthy food; 2) making Canadian food the top choice at home and abroad; 3) supporting food security in northern and Indigenous communities; and 4) reducing food waste. Encouragingly, in the first action area of the proposed *Food Policy for Canada,* the federal government recognizes that in order to improve food access to communities, a National School Food Program needs to be implemented. This echoes the need that all participants articulated for a national student nutrition program.

The development of a national student nutrition program would allow all students to access healthy food in schools, resulting in increased student well-being (Dunifon & Kowaleski-Jones, 2003; Gundersen et al., 2017; Godin et al., 2017). Such a program would not only improve their well-being, health and academic achievement, but also, it is a matter of equity and social justice (Brymer at al., 2012; Frisvold, 2015). Indeed, student nutrition programs are so much more than getting healthy food in schools. It should be noted, however, that while all participants suggested the Federal government should provide core funding for a national student nutrition program, they also wanted to ensure that programs were able to differentiate based on the needs of their school and communities.

Policy can and does influence the development and implementation of student nutrition programs as noted in the literature (Manion, 2010; Morgan & Sonnion, 2018; Vine & Elliott, 2013) and described by my participants. Indeed, policy is a critical factor in the sustainability of student nutrition programs and, by extension, student well-being. Without supportive policy that directly addresses student nutrition programs or student well-being, programs and initiatives are at risk of shutting down (Morgan & Sonnion, 2008; Prilleltensky, 2010). I now turn to specific recommendations that derive from the literature and my research that I think could improve the future of student nutrition programs in Ontario.

Recommendations

I conclude this chapter by proposing three recommendations for better supporting student nutrition programs and student well-being. The first is for policymakers at the federal level to establish a universal student nutrition program in Canada. The second recommendation addresses municipal, federal and provincial policymakers, politicians, and others in leadership roles in Ontario to strengthen intergovernmental collaboration and leadership across various ministries. My third recommendation is for student nutrition program coordinators, public health dieticians, and other advocates of student nutrition and student well-being and is focused on creating community food security pilot projects.

Establish a universal student nutrition program coast-to-coast-to-coast. Canada is the only G8 country without a nationally funded student nutrition program (Ke & Ford Jones, 2015). Student nutrition advocates have campaigned for the establishment of a national food assistance program in which all children and youth could participate (Gundersen et al., 2017; Koch, 2016). This is a matter of equity and means ensuring that student nutrition programs in

Canada are universally accessible, coast-to-coast-to-coast, allowing everyone to participate, belong, and be treated with respect.

Since the 2019 federal budget outlines an investment in a *Food Policy for Canada* and creates an opportunity for a National School Food Program to be developed, it is important to reflect upon how my research fits with this mandate. Both the literature and my research participants noted the different motivations for developing student nutrition programs and that four environments—the physical, economic, political, and socio-economic—must all be considered when developing and implement student nutrition programs that support student well-being (Godin et al., 2017).

First, the physical environment of student nutrition programs must be welcoming and inclusive. The program must allow for adequate time to eat, and must include trained and paid staff to uphold food safety standards. All participants expressed that fostering a welcoming and inclusive environment is the first indication of a successful student nutrition program. Second, the economic environment of student nutrition programs require attention, including funding, infrastructure (new and retrofits), and maintenance. All participants agreed that a financial commitment is required for program sustainability and expressed a need for the federal government to provide core funding. Third, the political environment is another important consideration for student nutrition programs. How well do policies and curriculum connections align with student nutrition program needs? Poverty reduction in Canada is important and participants argued that a health promotion policy would better address this issue, including in making better curriculum connections through the *Ontario Health and Physical Education Curriculum*. Fourth, the socio-cultural environment is also very important. These programs should engage all stakeholders to ensure that there is a range of foods being offered that respect

student diversity. Participants described the need to incorporate the perspectives of students, parents, educators, and community members as programs are developed and implemented to better reflect diversity and meet the needs of the community.

I have created Table 3 below as a proposed development strategy for the implementation of a universal student nutrition program in Canada. I used the four elements of student nutrition program development described in the literature (Godin et al., 2017) and by my research participants to outline a four-pronged approach. For each prong I have created guiding questions that could act as a checklist based on my interpretation of the literature and my research findings.

Table 3. A Development Strategy to Implement a Universal Student Nutrition Program in Canada

Prong	Considerations
Economic Environment	Who are the financial contributors? What can they commit? For how long? What infrastructure and resources are available in the school(s) for a student nutrition program?
Physical Environment	What are the food safety and nutrition standards? Who is trained and available to uphold these standards? Who delivers the food to schools? Where is the food sourced? What infrastructure is available for food storage? When is the food prepared? Who prepares the food? Where will students eat? How much time is allotted for eating?
Socio-cultural Environment	Who is being targeted? (i.e., grades, student demographics, etc.) Will the program be accessible to all students? What are the food needs of the students? Is there diversity of food available? What will be the role of parents, students, educators, and community members in program design and evaluation?
Political Environment	How will the program adhere to existing national, provincial, or municipal policies and guidelines on: student nutrition? And food safety? What curriculum connections can be made? How will the program be evaluated? Who evaluates the programs? How often are programs evaluated? With whom are program evaluations shared?

Strengthen intergovernmental collaboration and leadership. All levels of government—municipal, provincial, and federal—need to collaborate in order to ensure the successful implementation of a universal student nutrition program. Collaboration is required to ensure that resources, expertise and best practices are shared. Leadership and commitment is

needed to ensure continuity and sustainability of student nutrition programs in schools regardless of changes in government.

As mentioned in my literature review, a silo mentality has created barriers to effective partnerships across sectors (Manion, 2010; Vine & Elliott, 2013). Manion (2010) argues that collaboration between Ministries of Education and Health allows them to come together as a unified front, improves communication, and increases the availability and accessibility of supports. All of my research participants agree and specifically identified that the Ministry of Education and the Ministry of Health and Long-Term Care must both be present in discussions at the provincial level. Further, all participants wanted to see greater collaboration between and among Ministries at the provincial and federal levels although that is tricky given provincial Ministries only have jurisdiction in Ontario. This means that leadership is required by a federal Ministry for a national student nutrition program, but which one?

Catherine identified that the Ministry at the federal level would need to be one that directly oversees the well-being of children and youth and Ulla suggested the Coalition for Healthy School Food be a helpful leadership organization. Personally, I think that the Ministry of Families, Children, and Social Development would be the best fit since it is responsible for the development, managing, and delivering of social programs and services. It also already provides leadership for social programs in Canada, so a universal student nutrition program could fall under that portfolio. The Ministry should collaborate with the Coalition for Healthy School Food because they operate on a national level with several member organizations from different provinces so could provide guidance based on the experiences of existing programs, helping to scale up existing best practices across Canada. Further, since poverty affects many Canadian children, intergovernmental collaboration and leadership is required in poverty reduction

initiatives. Investing in a national student nutrition program would help reduce the impacts that poverty has on children by providing access to food in schools thereby increasing their well-being. Therefore, I recommend that the Ministry of Families, Children, and Social Development take leadership for the development, implementation, and ongoing sustainability of a universal student nutrition program in Canada, collaborating with both provincial ministries and the Coalition for Healthy School Food and other student nutrition and student well-being advocates.

Create a community food security pilot project. Community food security differs from individual or household level food security by focusing on all elements of a food system and the community infrastructure available (or not) to achieve food security (Hamm & Bellows, 2003; Scott Kantor, 2001). The promotion of health, well-being, and sustainability are at the core of community food security interventions (Hamm & Bellows, 2003). The mission of community food security initiatives is to provide everyone in the community with access to sufficient and nutritious food that is culturally appropriate and meets dietary needs (Hamm & Bellows, 2003; Scott Kantor, 2001). Expanding the current poverty reduction lens associated with student nutrition programs to including a health promotion lens would support dignity and well-being of community members. Community food security programs increase the quantity, quality, and accessibility of food for communities, especially the affordability of food for low-income community members (Scott Kantor, 2001). Having access to food in school is an opportunity to promote student well-being by contributing to school environments that build positive communities and foster a greater sense of belonging.

Both my research participants as well as the literature suggest that community pilot project should begin with a single-entry point that is feasible, affordable, and is addressing a policy goal (Hamm & Bellows, 2003; Scott Kantor, 2001). Stephanie and Joe suggested that

student nutrition programs would benefit from multi-sector pilot programs involving stakeholders from education, public health, parents, and community members. Stephanie and Erin also suggested the use of pilot projects to gain Ministerial support to foster scalability. Further, both the literature (Godin et al., 2017; Korzun & Webb, 2014) and my research participants expressed a need for program evaluation. Since there is no current standardized measurement tool to assess and evaluate these programs, community food security pilot projects should put emphasis on program evaluation.

All research participants identified public health dieticians as a potential support for student nutrition program assessment. Both Erin and Joe noted that although guidelines like PPM 150: The *Ontario School Food and Beverage Policy (2010)* exist, there is no supervision of school food to ensure those guidelines are being met, which presents a huge problem for ensuring student nutrition program consistency across the province. Joe recommended that student nutrition pilot projects could take a similar form as current mental health supports available for school boards, where school boards are provided with support personnel to help develop and implement new curriculum-linked and sustainable initiatives for school mental health and student well-being. He suggested that school boards could be supported by a public health dietician who could provide guidance on student nutrition programs. A similar model is in place in Thunder Bay as Erin reported that schools are working with a chef who provides guidance on student nutrition.

Taking these suggestions into account, I recommend that communities across the province pilot community food security projects that have evaluative components. School boards and public health units could collaboratively engage in designing a research project where a public health dietician is assigned to specific school(s) to provide guidance in developing and

evaluating student nutrition programs. I believe that this type of community food security pilot project could provide valuable insight and assist in the transition to a national student nutrition program. Figure 2 below maps out my vision for the development of a community food security pilot project. I used my experience designing this thesis to develop the terms used to describe the process in figure 2.

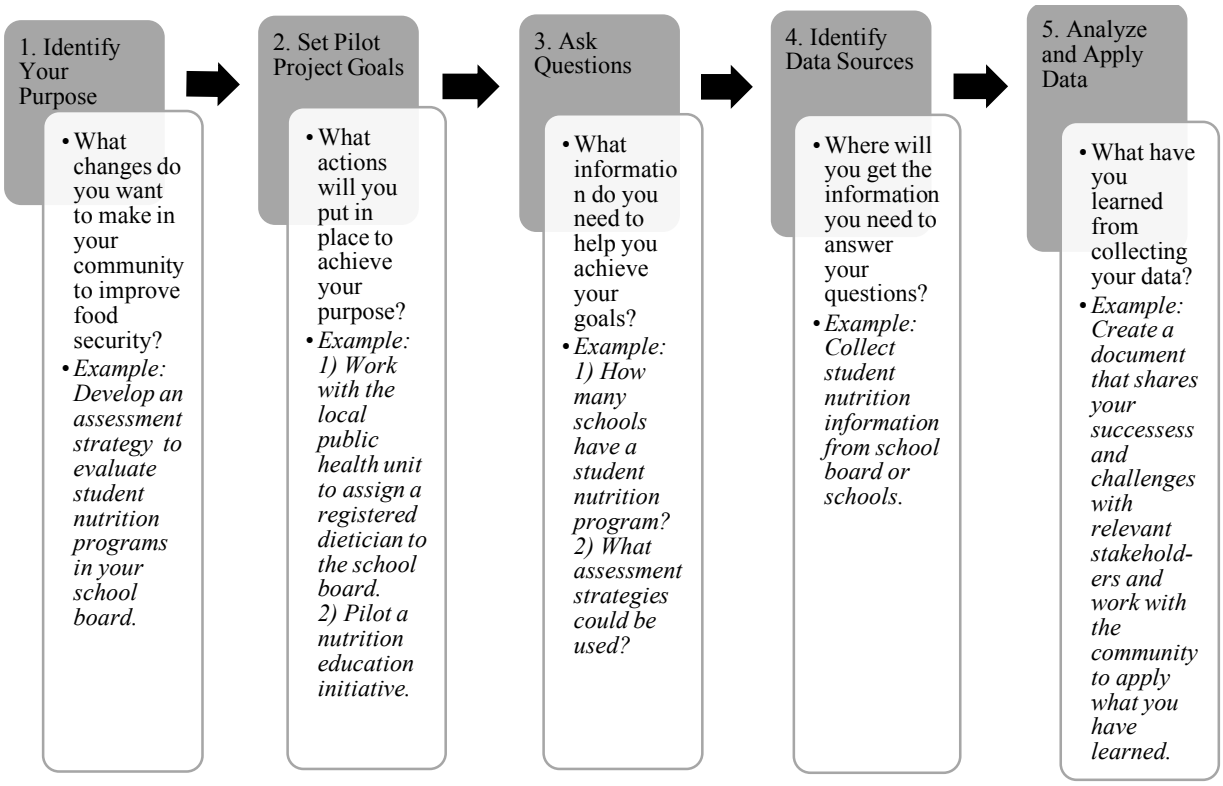

Figure 2. Mapping out a Community Food Security Pilot Project

Conclusion

I used this chapter to answer my research questions and present three recommendations based on my literature review and research findings. My first research question asked: *What are the perceived impacts of Ontario student nutrition programs on the development of elementary and secondary student well-being?* To answer this question, I explained how the school

environment and student learning are influenced by student nutrition programs which ultimately impacts student well-being. My second research question asked: *What role, if any, does policy play in the development and implementation of student nutrition programs?* To answer this question, I discussed the context and possible future of student nutrition programs in Ontario.

After reflecting on my analysis of the literature and my participant interviews, I proposed three recommendations. First, I recommended that a universal student nutrition program be designed and implemented coast-to-coast-to-coast and suggested a four-pronged approach to assist with develop and implementation. My second recommendation was that intergovernmental collaboration and leadership be strengthened and outlined various parties who needed to collaborate on the development, implementation, and ongoing sustainability of a universal student nutrition program in Canada. Lastly, I recommended that community food security pilot projects be initiated in municipalities across Canada, suggesting that school boards work with public health units to help with student nutrition program design, implementation and assessment, and offering a mapping framework for guidance.

I now turn to my final chapter in which I provide a brief synopsis of this thesis, highlight my research contributions, and make recommendations for future research. I close with a personal reflection.

Chapter Six: Conclusion

In this final chapter, I provide a summary of my research and offer final reflections. I begin the chapter by reviewing the previous thesis chapters and identifying the key research contributions of each. Then, I make recommendations for future research, especially considering the limitations of my research given its scope as a Master of Education thesis. I conclude with a personal reflection.

Synopsis

The purpose of my research was to identify the promotion of student well-being through Ontario student nutrition programs and the role of policy in their development and implementation by exploring two key questions: *What are the perceived impacts of Ontario student nutrition programs on the development of elementary and secondary student social and emotional student well-being? What role, if any, does policy play in the development and implementation of student nutrition programs?*

Throughout this thesis I have discussed the perceptions of key informants on the impacts of student nutrition programs on student well-being. The perceptions of my research participants provide insight into the impacts that student nutrition programs have on student well-being and the role that policy plays in their development and implementation through the experiences that my participants have in coordinating student nutrition programs. In my opening chapter I provided introductory background of the student nutrition and student well-being landscape in Ontario. I explained that due to high rates of food insecurity in Canada and rising concerns over childhood poverty and related health issues, there has been a push by student nutrition programming advocates—such as parents, educators, students, and non-government organizations—for Canada to implement national food assistance programs. Since Canada does

not have a national supported student nutrition program at this point, programs that do exist are funded through grants, donations, and fundraising and are vastly different in terms of physical space, the type and frequency of programs, and the availability of foods offered. In 2016, the Ontario Ministry of Education recognized the importance of holistic student well-being for academic achievement and for the development of children and youth. To help reach this goal, the Ontario Ministry of Education produced the *Ontario's Well-Being Strategy for Education (2016)* that outlines the cognitive, physical, social and emotional determinants for student well-being. Unfortunately, this document has now been archived under the current government. I have learned that there is tension when discussing student nutrition programs and student well-being. There seems to be an assumption that student nutrition programs fall under a poverty reduction strategy or under a health promotion lens, not both. I have learned that these programs can occupy both spaces while also addressing the needs of both. Unfortunately, with the archival of the well-being strategy document, I am concerned that student nutrition programs will be reduced into a poverty strategy without fulfilling their potential to also be health promotion opportunities within schools.

In my second chapter I reviewed relevant literature, focusing on student well-being, school environments, nutrition education, student nutrition programs, community food security, and the role of policy. I discussed Ministry of Education documents such as *Ontario's Well-Being Strategy for Education (2016)* and Health and Physical Education curricula, and noted that although both documents address student wellness, neither document explicitly discussed the impacts that student nutrition programs have on student well-being and school environments. I then examined both peer reviewed research and reports to illustrate current knowledge thinking about two fields that did not always overlap: student nutrition and student well-being. Through

this literature review I learned that there was a need for research to investigate the influence that student nutrition programs may have on student well-being.

My methodology and methods were discussed in chapter three. In order to situate myself in the research, I began the chapter by describing my background and my relationship to student nutrition programs. I used the transformative paradigm to inform how I conducted qualitative research that took inspiration from community-based research methods. Although my research was not able to be as critical or as participatory as I originally imagined, my intent was to embrace the transformative paradigm and community-based approaches to conduct research that was committed to social justice and change. Although this research was conducted during a challenging time for my participants working with student nutrition programs, I was able to gather interviews from five people, four student nutrition program coordinators and a school board superintendent, to gain insight into their perceptions of the impacts that student nutrition programs have on student well-being.

In chapter four I presented my research findings, dividing them into three themes. The first focused on the importance of and need for student nutrition programs, noting how funding and community support impacts program availability. The second focused on the perceived impacts of student nutrition programs on school environments and student learning. Lastly, the challenges in designing and implementing student nutrition programs were discussed in the third theme, which included navigating inconsistent funding, lack of infrastructure in schools, and changing political climates. During my analysis of the research findings I learned that student nutrition programs are valuable to schools and students beyond increasing access to food in schools. When student nutrition programs are intentionally designed and implemented well, they act as a catalyst for relationship-building in the school community, support student achievement

by getting healthy food in schools, increase social justice and equity in schools through universal access, and provide opportunities to incorporate food systems and food literacy links through curriculum connections.

In the fifth chapter, I returned to my two research questions. I synthesized my research findings and the literature to discuss the impacts that student nutrition programs have on student well-being, and what the future might hold for student nutrition programming in Ontario. I discussed each of the four domains of student well-being and how the school environment and student learning are both impacted by student nutrition programs. I also focused on the role of policy to discuss how student nutrition programs are designed, and the influence that changing political contexts have on program development and implementation. I then proposed three recommendations to better support student well-being through the implementation of universal student nutrition programs coast-to-coast-to-coast, intergovernmental collaboration and leadership, and community food security pilot projects

Research Contributions

My research has implications for student nutrition program coordinators, educators and administrators as well as policy makers in Ontario and Canada. It is also timely since Premier Ford was elected, the *Ontario's Well-Being Strategy for Education* has been shelved. My research indicates that a student nutrition program is so much more than a feeding program, it is an opportunity to support student well-being through enhancing both the school environment and student learning.

My research contributes to theory, literature, practice, and policy. To begin, while research on the connections between student nutrition programs and student well-being is growing, much of the discussion of these topics is occurring independently. In terms of theory,

then, my research helps to expand our thinking about student nutrition programs as a support for student well-being and expands ideas about student well-being to nutrition programs. The typical discourse around student nutrition programs has been concerned with reducing childhood obesity and poverty whereas my research presents an opportunity to change the conversation about student nutrition programs to instead incorporate a health promotion lens to improve student well-being and community food security.

As well, during my analysis of the literature, I found that the research available on student nutrition programs was largely based on quantitative studies and investigated the impacts of nutrient levels and students' nutrient uptake. In contrast, the literature I read on student well-being often mentioned holistic well-being, but ultimately concentrated on student mental health and mental health interventions. I thus saw two gaps that my qualitative research on the role of student nutrition programs on student well-being helps fill.

My research also has implications for practice and policy. Working with Carolyn Webb, I wanted to undertake a research project that would directly benefit student nutrition program coordinators. My thesis supports the need for more collaboration between student nutrition programs and educators to make greater connections between these programs and the enactment of curriculum. Additionally, I recommend better collaboration between provincial and federal Ministries if a universal student nutrition program in Canada is to become a reality. I also recommend community food security pilot projects with appropriate staffing and attention to holistic design and evaluation.

Regarding policy, my research is supportive of an emerging *Food Policy for Canada.* Indeed, my research findings support the need for Canada to mandate a universal student nutrition program coast-to-coast-to-coast. Further, I discussed *PPM 150* policy that regulates

school food and beverages in Ontario, noting how it is only concerned with food that is sold in schools and does not apply to student nutrition programs. All participants agreed that there is a need for student nutrition programs to have a clear policy that addresses nutrition and safety standards. My research supports the development of such a policy that also allows for flexibility to ensure that programs are appropriate for their contexts.

I believe that research must be disseminated effectively in order to make as much of a contribution as possible. If desired, Carolyn and my research participants will be able to take this research back to their communities and disseminate the findings. Additionally, I presented my research at the 2019 National Farm to School Conference in Victoria, British Columbia allowing me to share this research with the broader school food community in Canada. I look forward to sharing my research with other student nutrition program coordinators, educators, and administrators as well as student well-being and student nutrition advocates in the future.

Recommendations for Future Research

Although the timing and results of the provincial political election, lack of funding, and time constraints associated with thesis research all posed limitations, my research nonetheless offers a deeper understanding into why student nutrition programs are important in fostering supportive school environments, the perceived impacts that these programs have on student well-being, and the future of program design and implementation. The limitations I faced ultimately provided boundaries for this research project, but also provide insights for directions future research could go.

For instance, since I was not able to speak to children and classroom teachers, a priority for future research would be investigating the impacts of student nutrition programs from students' and teachers' perspectives. As well, following a student nutrition program from

development to implementation in a school could be illuminating and offer better understanding of this process as well as insights into how to improve scalability across a larger landscape such as a school board or province. My research findings also suggest that investigating a pilot project would be useful in exploring the challenges and opportunities for evaluating and reporting on projects, and possibly identifying promising practices around nutrition and safety standards, curriculum connections, and other program impacts.

Final Personal Reflection

Throughout this thesis journey I have grown as a researcher, a teacher, and as an individual. As a researcher, I have a deeper understanding of the research process and have continued to develop my practical research skills. From the start of this project I have worked with my supervisor, my committee member, and a community member to create a research project that I hoped would contribute valuable knowledge to the literature and can also be used to inform practice and policy.

I also learned that political dynamics impacted almost every aspect of my research. Having started this thesis under a Liberal provincial government and now finishing with a Progressive Conservative government in power, I have experienced how quickly the education climate can change. With recent announcements regarding changes to the Ontario Health and Physical Education curriculum, mandated increases in average class sizes, and budget cuts to public health units across the province, we need evidence-based research more than ever.

As a teacher, I also have come to appreciate my position of power. In a classroom I have the power to use the curriculum to make connections to the real world for my students. I look forward to incorporating more social justice links in my lesson planning and I hope to become a champion in my community by promoting and advocating for student nutrition programs, food

literacy, and student well-being. Having participated in the teacher rally held on April 6 2019 at Queen's Park in Toronto, I am proud to be part of a profession that puts the needs and education of kids first and is willing to demonstrate political empowerment and engage in activism.

Finally, as an individual, I have grown so much from this experience. The master's program has pushed me both intellectually and emotionally. I have learned that there is great value in understanding another person's experiences and perspectives, to always be passionate about what you are doing, and that the more time and effort you put into something, the greater the return is. I am so thankful for all the support I have received over these last two years that made this thesis possible.

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Appendix A: Introductory E-mail to Participants

Dear [participant],

I am conducting research for my Master's thesis in the Faculty of Education at Lakehead University in Thunder Bay, Ontario. I am contacting you today because I am interested in the possibility of interviewing you this summer for my research project. The title of my thesis is *The Perceived Impacts of Ontario Student nutrition program s on Student Well-being*. In this research project, I want to explore the impacts that student nutrition programs might have on the indicators of student well-being.

Working with Carolyn Webb, the Network Coordinator with Sustain Ontario's Edible Education Network, I have selected you as a participant I would like to interview. Based on Carolyn's recommendation, you were identified for your dedication to student nutrition programming and knowledge in this field. I feel that the experiences you have could provide valuable insight to my research and understanding this phenomenon.

To complete my research, I want to interview you for 30-60 minutes about your insights and experience with student well-being and student nutrition program s. As a qualitative researcher, my role is to listen to the stories of individuals and describe in detail their understanding of an experience. I have a responsibility to ensure that your experience is represented accurately in my research. Prior to beginning my research, I will be approved by Lakehead University's Research Ethics Board to ensure the ethical guidelines for all participants involved in my research.

If you are willing to be a part of this study, I am will be providing you with the information letter, participant consent form, and the interview questions in advance.

Thank you very much for your consideration,

Darya Parzei
Email: drparzei@lakeheadu.ca
Phone: (416) 244-7828

Lakehead UNIVERSITY

Appendix B: Participant Information Letter

Dear [participant],

The purpose of this letter is to follow up on our email conversations. I thank you for indicating your willingness to allow me to interview you for my research. The title of my thesis is *The Perceived Impacts of Ontario Student nutrition program s on Student Well-being* and I want to explore the impacts that student nutrition program s might have on the indicators of student well-being.

For this qualitative study, I will be conducting 30-60 minute interviews with participants to gain a deeper understanding of student nutrition program impacts. I will conduct audio-recorded interviews and transcribed them myself.

There is no foreseeable physical harm or risk to participants of this study, but there could be minor psychological risk if an interview question causes you to speak negatively about an organization. You will be sharing your own personal perceptions about the impacts of the student nutrition program that you organize or support, on student well-being. This presents the risk that an employer may find out that the employee has said something negative about their employer. To minimize the possibility of these risks, you will be given the opportunity to read the interview questions prior to the interview, and will have the right to refuse to answer any question, and to remain anonymous and receive a pseudonym in the results of this research in the written thesis, presentations at conferences or in classrooms, and potential written articles for scholar or professional educators. Further, I will provide well-being supports in your local community if you feel that you need to talk to a professional about well-being or receive more information.

I have a responsibility to ensure that your experiences are presented accurately. You will be given the opportunity to review the transcribed interview, if desired, to ensure that the transcription accurately reflects your perspectives. Your participation in my research is entirely voluntary, and you have the right to withdraw at any time during the data collection phase and to have any collected data related to you not included in the study. For research participant rights and ethical conduct of research, you may contact my supervisor, Dr. Charles Levkoe at 807-346- 7954 or clevkoe@lakeheadu.ca or the Lakehead University Research Ethics Board at (807) 343- 8283.

All data gathered through this research will be kept confidential, and you will be given the opportunity to indicate if you would like to remain anonymous. In that case, you will be given a pseudonym in the thesis and any associated writing or presentations. Only Dr. Levkoe, and I will have access to the raw data. At the end of my research, data will be stored securely on an external hard drive for a minimum of 5 years, as per Lakehead University's policy.

The results of this research will be used in my thesis, publications and in presentations. You may request an electronic copy of the full thesis by indicating so on the consent form. If at any time you have any questions or concerns regarding this research please feel free to contact me by email (drparzei@lakeheadu.ca) or by phone (416-577-7828).

I am grateful to have the opportunity to work with you.

Sincerely,

Darya Parzei
Master of Education Candidate
Lakehead University

Dr. Charles Levkoe
Canada Research Chair in Sustainable Food Systems
Lakehead University

This study has been approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of this research and would like to speak to someone outside of the research team please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

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Appendix C: Participant Consent Form

Study title: The Perceived Impacts of Ontario Student Nutrition Programs on Student Well-being

I,_____, have read and understood the information about the research project, including the potential risks of the study. I hereby consent to my participation in the research.

I understand:

- The potential risks of the study;
- I may withdraw from the research at any point during the data collection period;
- I may choose not to answer any questions;
- All information gathered will be treated confidentially;
- Data will be stored on an external hard drive for 5 years before being destroyed, as per Lakehead University's policy;
- I will be given the opportunity to review the transcribed interview;
- I may request an electronic copy of the full thesis by indication so on this form;
- I will not be identified in the thesis or any public presentation or publications without my consent.

I also understand that the results of this research will be used by the following;

- Darya Parzei's thesis, which will be available at the Lakehead University Library
- Presentations at conferences or in classrooms
- Written articles for scholar or professional educators

_____	_____	_____
(Print Name)	(Signature)	(Date)

I would like to receive the transcribed interview for review: Yes___No____

I would like to remain anonymous and receive a pseudonym: Yes___No____

I would like to receive an electronic copy of the full thesis: Yes___No____

(If yes, please provide an email address_____)

Sincerely,

Darya Parzei

Master of Education Candidate
Lakehead University

Appendix D: Interview Guide

Theme	Question	Probe
Intro/ Student nutrition programs	How was this student nutrition program started? What are the objectives and goals for this program? - What are the components of the program - Outcomes Have you included a form of nutrition education in your program? Why? Or Why not?	What brought you to this position? Interests: Food (security), Education, Student well-being, Other? What is your perception about the success of the student nutrition program? - Has this changed over time? - How do you monitor/evaluate the program? How is it taught/talked about? - Explicit - Hands-on - different techniques for age groups - Diversity and inclusion (ethnic food and cultures)
Student Well-being	The *Ontario's Well-Being Strategy for Education* defines well-being as, the: **positive sense of self, spirit and belonging that we feel when our cognitive, emotional, social and physical needs are being met.** It is supported through equity and respect for diverse identities and strengths. Well-being in early years and school settings is about helping children and students become resilient, so that they can make positive and healthy choices to support learning and achievement both now and in the future. (2016, p. 3)	Examples - Policy/Strategy/Framework - Programming/Initiative - Curriculum

	How does your organization address student well-being according to the Ministry of Education definition? How does your organization promote and support student well-being in terms of: - Physical need? - Cognitive need? - Social need? - Emotional need? To what extent does your organization see student nutrition programming as a support for student well-being?	Examples of student nutrition programs supporting student well-being: - Reduces the impacts of poverty (access to food) - Opportunities to provide diversity and inclusive education (including foods from different cultures) Are there any differences you have noticed among student social groups? - Gender? - Socio-economic status? - Age groups?
Nutrition Education	What type of response have you had from administrators, educators, students, and parents when your student nutrition program is in a school?	Is it a priority for administrators/educators? Do you have any stories from students or parents about their experiences? Would you feel comfortable sharing one?
School Environments	How do student nutrition programs impact school environments? How do you know these impacts are happening?	Examples: - Student learning (in nutrition and health knowledge) - Academic achievement (student test scores) - Atmosphere (bullying) - Relationships (friendship) - Student Well-being (physical, cognitive, social & emotional) - Student nutrition program (access to food)

Conclusion	Are there any changes you would make to improve your student nutrition program? What are the biggest challenges or limitations you have experienced when providing a student nutrition program? What is your vision for student nutrition programming in your community/region? In Ontario? In Canada? If you could make one or two recommendations to achieve that vision, who would be involved? and what would be needed?	Barriers can include: - Financial (amount/type of food, etc.) - Institutional (infrastructure, priority, etc.) - Perceptions (administrators, educators, parents, students) Where might resources be better directed to promote and support student well-being in schools? - Ministry of Education - Ministry of Health & Long-Term Care (Public Health) - Other (collaboration between ministries/sectors)

Notes:

Appendix E: List of Student Well-Being Supports in Ontario

Organization	Description	Contact Info
Ontario Ministry of Education	Promoting well-being is one of the ministry's four goals outlined in *Achieving Excellence, Ontario's Renewed Vision for Education*.	Learn more at http://www.edu.gov.on.ca/eng/about/Wellbeing2.html
School Mental Health ASSIST (SMH ASSIST)	Provincial implementation support team designed to help Ontario school boards promote student mental health and well-being. SMH ASSIST offers its services directly to school boards via their *Mental Health Leadership Team.*	Learn more at https://smh-assist.ca SMH ASSIST Resources https://smh-assist.ca/resources/ Contact: Kathy Short, Ph.D., C.Psych. Director, School Mental Health ASSIST By email at kshort@hwdsb.on.ca
Kids Help Phone	Anonymous and confidential counselling, information and referrals to young people 24 hours a day, 7 days a week in English and French. Provide direct links to local supports through Canada's most comprehensive resource database of youth-facing programs.	Learn more at https://kidshelpphone.ca Call a counsellor: 1-800-668-6868
Canadian Mental Health Association (CMHA) Ontario	Is a non-profit, charitable organization committed to making mental health possible for all. CMHA Ontario works closely with its 30 local branches in communities across Ontario.	Learn more at https://ontario.cmha.ca CMHA Ontario Mental Health Resources in Schools https://ontario.cmha.ca/documents/mental-health-resources-in-schools/ Mental Health Helpline: 1-866-531-2600 Contact CMHA: By phone at 1-800-875-6213 (toll-free in Ontario) By E-mail at info@ontario.cmha.ca
Ontario Health Care Options	Find the health care services available to you in your location.	Learn more at https://www.ontario.ca/locations/health/ Or call Telehealth: 1-866-797-0000

Appendix F: Research Ethics Board Approval Letter

Lakehead UNIVERSITY

Research Ethics Board
t: (807) 343-8283
research@lakeheadu.ca

July 6, 2018

Principal Investigator: Dr. Charles Levkoe
Student Investigator: Darya Parzei
Department of Health Sciences
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1

Dear Dr. Levkoe and Ms. Parzei:

Re: REB Romeo File No: 1466554
Granting Agency: N/A
Agency Reference #: N/A

On behalf of the Research Ethics Board, I am pleased to grant ethical approval to your research project titled, "The perceived impacts of school nutrition programs on student well-being".

Ethics approval is valid until July 6, 2019. Please submit a Request for Renewal to the Office of Research Services via the Romeo Research Portal by June 6, 2019 if your research involving human participants will continue for longer than one year. A Final Report must be submitted promptly upon completion of the project. Access the Romeo Research Portal by logging into mylnfo at:

https://erpwp.lakeheadu.ca/

During the course of the study, any modifications to the protocol or forms must not be initiated without prior written approval from the REB. You must promptly notify the REB of any adverse events that may occur.

Best wishes for a successful research project.

Sincerely,

Dr. Kristin Burnett
A/Chair, Research Ethics Board

/scw