A Participatory Approach to Developing a Culture-Based School Health Promotion Model for Elementary Students in Kahnawà:ke

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ABSTRACT

The current health status of the Indigenous peoples of Canada is socially determined by the many effects of colonization. Because children spend much of their time in school, school health promotion provides opportunity to instill lifelong healthy habits important for their growth and development. A plethora of school health promotion models recognized by the World Health Organization (WHO) is readily available at our fingertips. It has been recognized however, that these models may not be sufficiently relevant or appropriate in elementary schools within Indigenous communities. Moreover it is evident that culturally adapted models have higher participant satisfaction compared to non-culturally adapted school health promotion interventions. Indigenous ways of knowing grounds and provides Indigenous scholars with a foundation for carrying out research on health and wellness for our communities. Guided by community based participatory research (CBPR), this study applies an Indigenous research framework to address the following question: How can building a culture-based school health promotion model for elementary students in Kahnawà:ke be realized? The case study for the evaluation of the Kateri Memorial Hospital Centre's (KMHC) Health Education Program for Diabetes Prevention in Kahnawake provides the context for this research. Qualitative data were collected in Kahnawake through: 13 individual interviews with community stakeholders involved in health and education; a PhotoVoice project with grade 5 and 6 elementary school children in two of Kahnawake's elementary schools; and a Talking Circle with the schools' wellness committee. A review of the literature served to verify information described by research participants. Analysis involved thematic analysis across interviews, photos, and information provided by Talking Circle participants. Findings indicate that the case study is an effective tool for providing baseline information and context as a research starting point. Several factors were

identified that could provide the impetus to developing a culture-based school health promotion model in Kahnawake, including: 1) administrative and management support; 2) dedicated time and resources; 3) stakeholder ownership and participation; 4) voice of the youth; 5) champions and leaders at all levels; 6) community readiness; and 7) change comes with challenges. The results of this study represent the possible development of a school health promotion model for the community of Kahnawake to consider. It also builds on existing literature pertaining to applying Indigenous research frameworks and Indigenous research methodologies grounded in Indigenous ways of knowing.

RÉSUMÉ

L'état de santé des peuples autochtones du Canada est directement lié aux effets de la colonisation. Parce que les enfants passent la majorité de leur temps à l'école, l'école est un endroit propice pour instaurer de saines habitudes saines de vie qui les aideront à grandir et à bien se développer. Il existe une panoplie de programmes d'écoles promotrices de la santé reconnus par l'Organisation mondiale de la santé. Toutefois, ces programmes ne sont pas pertinents ou adaptés aux écoles situées dans les communautés autochtones. Il y a lieu d'implanter des programmes d'écoles promotrices de la santé culturellement adaptés, qui génèrent un taux de satisfaction élevé en comparaison avec des programmes non adaptés similaires. Les traditions et le savoir autochtones procurent une base fondamentale aux chercheurs autochtones qui s'intéressent à la recherche dans le domaine de la santé et du bien-être des communautés. Cette étude, ancrée dans une démarche communautaire et participative, applique un cadre de recherche autochtone pour répondre à la question suivante : comment peut-on développer un modèle d'école primaire promotrice de la santé culturellement pertinent à Kahnawà:ke? Cette recherche est basée sur un devis d'étude de cas et réalisée dans le contexte de l'évaluation du programme de prévention et d'éducation sur le diabète du Kateri Memorial Hospital Centre à Kahnawà:ke. Les données qualitatives ont été collectées à Kahnawà:ke à l'aide de : 13 entrevues individuelles auprès d'intervenants communautaires impliqués dans la santé et l'éducation; un projet PhotoVoice réalisé avec la collaboration des élèves de cinquième et sixième année de deux écoles primaires de Kahnawà:ke; un cercle de discussion avec les comités des écoles. Une revue de littérature a aussi été réalisée, ce qui a permis de valider certaines des informations décrites par les participants de la recherche. Les *verbatim* des entrevues, les photos ainsi que les informations collectées lors du cercle de discussion ont été analysés sur la

base d’une stratégie d’analyse thématique. Les résultats démontrent que l’étude de cas est une méthode efficace afin de procurer des données initiales et de documenter le contexte de l’étude. Plusieurs facteurs apparaissent comme primordiaux afin de favoriser le développement d'un modèle d’école promotrice de la santé culturellement pertinent à Kahnawà:ke, incluant: 1) du soutien administratif et de gestion; 2) du temps réservé et des ressources dédiées; 3) la participation et la prise en charge du projet par les intervenants; 4) la voix des jeunes; 5) la participation de champions et de décideurs de tous niveaux; 6) la prédisposition communautaire; 7) un certain niveau de préparation aux défis. Les résultats de cette étude suggèrent qu’il est possible de développer une école promotrice de santé à Kahnawà:ke. Ils construisent sur les connaissances existantes au regard des cadre de recherche et des méthodologies de recherche autochtones, ceux-ci ancrés dans les savoirs traditionnels autochtones.

ACKNOWLEDGEMENTS

Niá:wen Takaia'tíshon ne wa'tkwanonhwerá:ton (I give thanks, greetings and acknowledgement to the Creator) for all of creation and for keeping me grounded in my traditional teachings. Many people have contributed to my research journey. First, I offer my sincere gratitude to the Kahnawà:ke Schools Diabetes Prevention Project staff, Community Advisory Board, and Research Team, whose feedback and support have guided me throughout this dissertation and my entire graduate career. *Niawen'kó:wa* to all of the Kahnawà:ke participants who agreed to take part in this study. Your knowledge and personal perspectives have contributed greatly to this work.

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LIST OF ABBREVIATIONS

ADI	Aboriginal Diabetes Initiative (health Canada)
CAB	Community Advisory Board
CBPR	Community-based participatory research
CIHR	Canadian Institutes of Health Research
CSH	Comprehensive School Health
CSHP	Comprehensive School Health Promotion
HEP	Health Education Program
HPS	Health Promoting School
KCSC	Kahnawà:ke Combined Schools Committee
KEC	Kahnawà:ke Education Center
KMHC	Kahnawà:ke Memorial Hospital Centre
KSCS	Kahnawà:ke Shakotiia'takéhnhas Community Services
KSDPP	Kahnawà:ke Schools Diabetes Prevention Project
KT	Knowledge Translation
PR	Participatory Research
RCAP	Royal Commission on Aboriginal Peoples
RT	Research Team
SDH	Social Determinants of Health
SHP	School Health Promotion
TRC	Canada's Truth and Reconciliation Commission
WHO	World Health Organization

CHAPTER 1: ENKATATENÁTON - INTRODUCTION

WA'TKWANONWERÁTON – My mind greets yours

Health and education are strongly connected (Langford et al, 2014). If we are psychologically, physically and spiritually well, it is easier for humans to better learn and understand the world around us. In a school setting, it then seems logical to assume that if the school environment looks and 'feels' healthy (people, classrooms, hallways, outdoor playgrounds), then students should be performing well in school. How can this be measured? Can a model for school health promotion improve students' health and well-being and their performance at school? Are culturally relevant school health promotion models more appropriate for Indigenous peoples? These are the initial questions that I pondered.

Worldwide, school health promotion approaches and strategies are increasingly being established and adapted in many school districts that are making significant impacts in schools (WHO, 2017). Today, one can easily search the internet for an adaptable model relevant for a school setting. While there are many easily accessible, well-designed, even wholistic[1] models to draw from for local school contexts and communities, it has been said that they are not sufficiently relevant or culturally appropriate for the cultures and contexts of Indigenous peoples (National Collaborating Centre for Aboriginal Health, 2010). In a recent systematic review of interventions to improve physical activity and fitness among African-Americans, for example, it was found that culturally adapted interventions had higher participant satisfaction, engagement, and retention rates compared to non-culturally adapted interventions (Whitt-Glover & Kumanyika, 2009).

[1] The term wholistic is used rather than holistic throughout this dissertation referring to a mind-body-spirit-emotional approach to health.

Because of the current health status of Indigenous peoples within Canada, there is an urgent need to create culturally appropriate community-based primary prevention programs to reduce the epidemic of type 2 diabetes (Macaulay et al., 2003), obesity (Bender, Clark, & Gahagan, 2014), and many other health inequities and disparities facing Indigenous youth in Canada. Some of those include infant mortality, chronic and infectious disease, and social problems such as unemployment, alcohol and drug abuse, family violence, and suicide (Adelson, 2005). According to Adelson (2005) for example, suicide and self-inflicted injury is the leading cause of death among Indigenous peoples of Canada in those aged 10-19 and 20-24 (Adelson, 2005, p. 54). Not surprisingly for Indigenous peoples, according to the NCCAH (National Collaborating Centre for Aboriginal Health, 2010), there is a mismatch in understandings of health that is caused by differences in conceptualizing health between Indigenous and mainstream populations. Accordingly, "Indigenous ways of being and knowing provide the foundation for health and wellness, and, therefore, must be foundational to school health programs for Indigenous children (NCCAH, 2010)."

This qualitative study applies a Haudenosaunee lens within an Indigenous research framework. Drawing on the work of Indigenous scholars on Turtle Island (North America), Aotearoa/New Zealand, Africa, and Australia (Battiste, 2000; Brant-Castellano, 2000; Chilisa, 2012; Ermine, 2006; Kovach, 2009; Smith, 1999; 2012; Smylie, 2004; Weber-Pillwax, 2001; Wilson, 2008) and others, this study is rooted in the politics of decolonization in the context of Indigenous health and education research. Key assumptions of this research framework are based on the following: a) that colonization has been recognized internationally as a key determinant of health for Indigenous peoples; b) that a community-based participatory research approach (CBPR) is a way

of decolonizing research; c) that centering Indigenous research methodologies around health and education research allows us to 'share what we know about living a good life' (Ermine, 2006) and; d) that Indigenous researchers choose to create for themselves a safe 'ethical space' to work from (Ermine, 2006) while satisfying academic institutional obligations, and at the same time making change for positive difference in our communities. These assumptions will be elucidated throughout this dissertation, perhaps though, the following quote from Willie Ermine, who is a Cree from Sturgeon Lake First Nation in Saskatchewan and promotes ethical practices of research involving Indigenous peoples, will provide a partial understanding:

> "The 'ethical space' is formed when two societies, with disparate worldviews, are poised to engage each other. It is the thought about diverse societies and the space in between them that contributes to the development of a framework for dialogue between human communities."
>
> (Willie Ermine, 2007)

In a recent systematic review of Indigenous research methods, it has been found that a main component of an Indigenous research framework is contextual reflection, in that researchers situate themselves and the Indigenous peoples with whom they are collaborating in the research process (Drawson, Toombs & Musquash, 2017). Moreover, positionality and self-reflexivity is an essential part of a decolonization process of ourselves as the researched Other (Chilisa, 2012; pp. 173-178). As Indigenous scholars then, "…in understanding our connections to the world and how we view the world, we need to start by situating ourselves, it's part of our identity." (King & McGavock, 2017). Before continuing with outlining the goals, objectives and layout of this dissertation, I first situate myself in a way that the reader knows who I am, where I come from, and the purpose for conducting this study (Wilson, 2008).

SITUATING MYSELF IN THIS RESEARCH

My name is Morgan Kahentonni Phillips and I am from Kahnawà:ke, which means 'on' or 'by' the rapids. I am a citizen of the Haudenosaunee (People of the Longhouse) Six Nations Confederacy, also known by its colonized name as the Iroquois, and live in the Kanien'kehá:ka (People of the Flint) Territory of Kahnawà:ke, one of eight Kanien'kehá:ka communities now spread out in Quebec, Ontario and New York State. I am part of the wolf clan family, a clan name passed on to me matrilineally. My parents are the late Rita Konwatsi'tsaién:ni, who was an educator, artist and activist; and Oliver Sha'tehorónniens Phillips, who was an ironworker. I have one son and one grandson. While I am not fluent in my own language, I am fortunate to have been raised as a traditional Longhouse person, and continue to learn and use my language as I grow older. The Longhouse teachings, ceremonies and philosophies that I was raised with are an integral part of my worldview that grounds me in my identity as a Kanien'kehá:ka woman.

This study is situated in Kahnawà:ke. The Kanien'kehá:ka Nation are one of six nations that make up the Haudenosaunee Confederacy. Since 1716, Kahnawà:ke was located directly on the shore of the St. Lawrence where life on the river was an important part of our lifestyle, language, and culture. Originally over 40,000 acres, Kahnawà:ke's land base has gradually depleted to approximately 13,000 acres through land cessions by the Jesuits, the Department of Indian Affairs, bridges, two major highways, and major utility companies, and especially the construction of the St. Lawrence Seaway in the late 1950s (Phillips, 2000, p. 1), which literally severed the community from the river. Today, our current population 'on reserve' is 8,055 (Indigenous and Northern Affairs Canada, 2018), with another 3,141 living in different parts of what we call Turtle Island (North America).

Located approximately 15 kilometres south of Montreal, we still live on part of the original Kanien'kehá:ka territory, and we are known amongst the Confederacy as the as Keepers of the Eastern Door. Part of our responsibility was to protect the most eastern part of the entire six nations territory. The Kanien'kehá:ka are descendants of an ancient society with a rich, vibrant, and unique heritage, and despite attempted colonial efforts to eradicate our culture and traditional teachings, our resilience has helped to keep much of our language and culture intact. Following the 1990 Oka Crisis, language and cultural revitalization efforts have steadily increased (Kirmayer et al, 2012).

My research and worldview is grounded in the principles of the Haudenosaunee through our Creation Story, Kaianere'kówa (The Great Law of Peace), and philosophies of The Seventh Generation, Kaswéntha (The Two Row Wampum Treaty), and other teachings. Understanding creation stories reminds us of our role in society, and our connection to people and all living things we were born to. As elder Tom Shakoweniónkwas Porter explains (2008), the Creator prescribed to us 'original instructions' on how to conduct ourselves on earth for the purpose of beautifying and making Mother Earth more pleasing for the habitation of man. The original instructions taught us to see to it that everything under, on, or above the earth is to be taken care of for seven generations to come. Cornelia Weiman explains further:

> "Among traditional Iroquoian [Haudenosaunee] peoples, there is a firmly rooted commitment to and deference toward what is called the "Seven Generations" prophecy. The central tenet of this prophecy is a clear-minded understanding of how one's actions, attitudes, behaviors, and, in particular, decisions in this generation will affect not just the next generation, but our descendants for seven generations to come. This is a perspective that fits a forward-thinking cultural outlook well known among the Iroquois."
>
> (Weiman, 2009; p. 416*)*

How I apply this to my research is being mindful of the projects that I attach myself to, as they should always be meaningful and grounded in the needs of my community and other Indigenous peoples of the earth. Kanien'kehá:ka clan families and communities work together, continuously on a learning or exploring journey, so we strive to apply this approach to our work. Today, this could also be called participatory research.

As I will further explain in chapter two, the principles of Kaianera'kowa and Kaswéntha also ground my research in terms of collaboration and working peacefully alongside allied researchers who are non-Indigenous. Kaianere'kowa is the constitution of the Haudenosaunee containing laws based on a matrilineal, democratic consensus-building decision making process, known to us as 'coming-to-one-mind'. As an 'insider' researcher I view the principles of Kaianere'kowa and Kaswéntha as a metaphor for research that allows me to find my own 'ethical' space between two worldviews and where my voice can be respectfully heard. As I navigate through my own understanding of the decolonization process, I find myself constantly unravelling and learning about different approaches, frameworks, metaphors, theories, and methodologies so that I may borrow them and apply them to my work. To accomplish this, I turn to the Kanienkehá:ka idea of sovereignty, indigeneity, and self-determination; and position myself in a wholistic worldview of health. Drawing from the Kanien'kéha (Mohawk language) phrase, *sha'tetiohkwáthe* -- meaning "we all have a voice", or "that we are all of the same height where there is no hierarchy" (A. McGregor, personal correspondence, April, 2018) -- is another way of understanding some of these principles.

My interest in school health promotion stems from my involvement with the Kahnawà:ke Schools Diabetes Prevention Project (KSDPP) since it was founded in August of 1994, and a

concern for the unnecessary high prevalence rates of type 2 diabetes among the world's Indigenous populations due to the impacts of colonization (Harris et al, 2013; Yu & Zinman, 2007). KSDPP is a long-standing community-based participatory research (CPBR) project created by community members who partner with outside academic institutions to prevent type 2 diabetes among not only the current generation, but for future unborn generations (Hovey et al, 2017). KSDPP's Code of Research Ethics incorporates Haudenosaunee ways of knowing and decision-making processes. More details about KSDPP will be provided as this dissertation progresses.

Nineteen ninety-four was the same year that my mother passed on to the spirit world. She had been diagnosed with type 2 diabetes only a year before she left. Because of this, when KSDPP was first launched, I signed up to volunteer as a Community Advisory Board (CAB) member out of a personal concern to help prevent the disease, while representing the school that I was employed with at the time, the Kahnawà:ke Survival School. My role as a volunteer CAB member in the early years was to help mobilize the community for the promotion of living healthy lifestyles. As the years progressed, CAB members, such as myself, became more involved in directing school health interventions and research components. With much encouragement from KSDPP staff and board members, and after gaining experience in health promotion research, as well as witnessing positive change in my community, in 2004 I made a decision to journey into the world of university in pursuit of, at first, a Bachelor's degree.

Nearing the completion of my undergrad degree, and for the duration of my Master's degree (2007-2012) I was part of an international research study funded by the Canadian Institutes of Health Research (CIHR) entitled Roots of Resilience: Transformations of identity and

community in Indigenous mental health (https://www.mcgill.ca/resilience/). As an Indigenous research assistant, the study provided me many opportunities to gain more knowledge about mental health research, Indigenous resilience, and Indigenous research methodologies. This participatory project involved partnering with several Indigenous communities within Canada, and also with the Maōri of Aotearoa/New Zealand. I was further encouraged to pursue graduate studies and applied for and received scholarship awards from the Institute of Aboriginal Peoples' Health (IAPH), one of 13 institutes funded by CIHR that fosters the advancement of national health research agenda to improve and promote the health of Indigenous (First Nations, Inuit and Métis) peoples in Canada.

MOTIVATION FOR THIS STUDY

The impetus for this study emanates from my involvement in the participatory evaluation of the Kateri Memorial Hospital Centre's (KMHC) Health Education Program (HEP) for Diabetes Prevention in Kahnawà:ke, of which I will provide a more thorough explanation throughout the dissertation. Now a volunteer member of both KSDPP CAB and its research team (RT), from 2012-2013, as a research assistant, I assisted in the coordination of an evaluation project funded by Health Canada's Aboriginal Diabetes Initiative (ADI). ADI is a federal government funded program designed to improve health outcomes and reduce health inequalities between Indigenous peoples and Canadians, and works in partnerships with Health Canada's First Nations and Inuit Health Branch (FNIHB). Upon completion of the evaluation project, I became motivated to use the project as a case study for further investigation into how results and recommendations contained within the Final Report: Evaluation of the KMHC HEP for Diabetes Prevention (May 2013) resonated with community stakeholders, and how it could be taken a step forward. For example, one recommendation in the report suggested to enhance the KMHC HEP

for Diabetes Prevention through incorporating more Kanien'kéha language and activities, and to link health education curriculum with a Kanien'kehá:ka identify of being healthy physically, spiritually and emotionally (p. 34).

WHAT THIS STUDY IS ABOUT

Guided by a CBPR approach, the overall goals of this study are: 1) to work with my community to develop a culture-based health promotion model for elementary schools in the community of Kahnawà:ke; and 2) to contribute to the methodological discourse on applying an Indigenous research framework through a Haudenosaunee lens from an 'insider' perspective.

My main research question is:

How can building a culture-based health promotion model for elementary students in Kahnawà:ke be realized?

To help answer my main question, the following sub-questions were also considered:

1. Can the evaluation of the KMHC HEP for Diabetes Prevention serve as a case study to inform this present research?
2. What are community stakeholders' responses to the evaluation of the KMHC HEP for Diabetes Prevention?
3. How do students at Kateri School and Karonhianónhnha Tsi ionteriwaienstahkwa (school) perceive school health promotion and what have they learned?
4. How can we as a community collaboratively work together to build a culture-based school health promotion for elementary students for Kateri School and Karonhianónhnha Tsi ionterihwaiensthákwa schools?
5. How can I contribute to the discourse on applying an Indigenous research framework through a Haudenosaunee lens from an 'insider' perspective?

The Case of Evaluating the KMHC HEP for Diabetes Prevention in Kahnawà:ke

The case study as methodology brings an evaluation to life and fosters self-determination when inclusion and community participation exists (Johnston, 2013). In Whitman & Aldinger's book (2009), *Case studies in global school health promotion: From research to practice*, 26 case

studies from around the globe, offer many insights into the feasibility of applying the Health Promoting School (HPS) concept; I will describe this in greater detail in chapter two. Their focus was on research and evaluation evidence of various health promotion, prevention, and school intervention strategies from several different countries using case studies as a contextual background for each situation. They determined that a number of factors that influence change in policy and practice include: stakeholder input, ownership & participation, champions & leaders and all levels, administrative & management support, stage of readiness, and dedicated time and resources. I present below the case study of the evaluation of the KMHC HEP for Diabetes Prevention as a contextual background of this research. In doing so, it provides a starting point for a later discussion on how it can be used to inform best practices of translating research into policy-level change within the context of school health promotion in Indigenous communities.

The Case Study of the evaluation of the KMHC HEP for

Diabetes Prevention in Kahnawà:ke

From 1994-1997 the KMHC developed and implemented the KMHC Health Education Program (HEP) for Diabetes Prevention for two elementary schools in Kahnawà:ke; Karonhianónhnha Tsi ionterihwaiensthákwa and Kateri School. It has been supported by KSDPP under the direction of the Kahnawà:ke Education Center (KEC) and the Kahnawà:ke Combined Schools Committee (the governing school board and parents' committee). KMHC owns the copyright to the KMHC HEP for Diabetes Prevention. Karonhianónhnha Tsi ionterihwaiensthákwa is a Kanien'kéha (Mohawk language) immersion school serving Kahnawà:ke students from grades Nursery-6; while Kateri School is a school with English language programming which recently added a French immersion program; it also services students from grades Nursery-6. Authored by two community nurses and a school nutritionist, the KMHC HEP for Diabetes Prevention consists of

ten (10) forty-five (45) minute lessons contained in three units: 1) Nutrition and 2) Fitness, and; 3) Lifestyles and Diabetes. The curriculum was purposely designed to meet the needs of each school and was administered differently, mainly because one school is a Kanien'kéha language immersion school:

"And really, why they were administered differently basically was because of the language. There were two factors, say at Karonhianónhnha, it was because first of all it had to be taught [and translated] in Kanien'kéha. So there was a need to do a specific class[room] for that. But the other reason was, it was a prime opportunity to provide classroom teachers with release time, and a break in terms of prep…at Kateri it was different. The binders were given to each subject teacher, each classroom, and the teachers there taught the lessons right in the [homeroom] classroom." (Kahnawà:ke Education Center Participant, March, 2016).

In 2011, KSDPP applied for and received funding from Health Canada's Aboriginal Diabetes Initiative (ADI) Regional Evaluation and Innovation Fund (REIF) to evaluate the program. In 2012, the KMHC HEP for Diabetes Prevention was evaluated by team of academic and community researchers from KSDPP and McGill University. A CBPR mixed methods (qualitative and quantitative) study was conducted to gather perspectives from curriculum authors, school administrators, educators, and parents. The program was assessed for: 1) relevancy and accuracy of curriculum content; 2) cultural appropriateness; and 3) appropriateness of the instructional methodology. The project's objectives were to understand facilitators and barriers to its delivery and investigate whether its content and delivery methods required updating.

Contained in a final report (Phillips, McComber, & Khayyat Kholghi, 2013) was a detailed summary of findings and recommendations which was thoroughly disseminated by the research team to community stakeholders/knowledge users through several presentations over a period of three months. The results indicated that the KMHC HEP for Diabetes Prevention was still perceived as important and relevant, nevertheless, modifications to its delivery system, cultural appropriateness, and more administrative support was needed in order to revive the program. The Final Report provided a snapshot of the current status of the program as explained through a list of barriers and facilitators to its delivery. One of the final report's recommendations was the possibility of developing a more culturally relevant, comprehensive health education program for Kahnawà:ke elementary students (p. 35).

Drawing from this case study, this dissertation aims to address the recommendation of developing a comprehensive health education program for Kahnawà:ke elementary students.

THE RESEARCH SETTING

> "I believe that we've [Haudenosaunee] been resilient for a number of reasons, most important of which has been our ability to keep an extraordinary amount of our culture and its teachings relatively intact. Another key ingredient has been the degree to which we've been able to maintain our languages which allow us to think in non-European ways about any issue giving us the flexibility to see, conceive and imagine many more possibilities than English and French allow."
>
> (Mike Myers, Seneca Elder/Scholar, personal correspondence, December, 2008)

The people of Kahnawà:ke take pride in having taken control from the federal government over its education and health services during the late 1960s. Up until then, elementary schools within Kahnawà:ke operated as federal schools segregated by religion, that is, Catholic and Protestant.

In 1968, a group of mothers came together – my mother was part of this group – to create the Joint Unification Agreement, which united the different churches (Protestant, Catholic and Pentecostal) and the People of the Longhouse to work together for a common cause: strengthening the services for our children's education. This political action transferred power over Kahnawà:ke's childrens' education from both church and government to Kahnawà:ke parents. The most significant contributions of this agreement would later be the creation of the Kahnawà:ke Education Center, the Kahnawà:ke Survival School (our local high school), and the Karonhianónhnha Tsi ionterihwaiensthákwa (Kanien'kéha Mohawk language Immersion School). This included the decentralization of the federal schools' teachers from the Department of Indian Affairs to the Kahnawà:ke Combined Schools Committee, which still exists today.

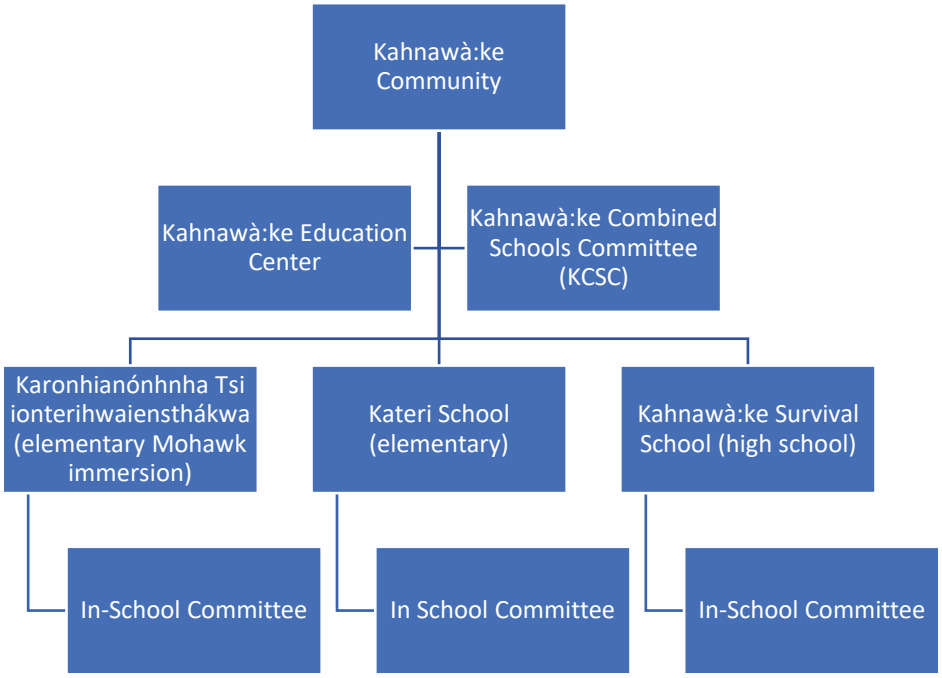
> "In 1996, the parents approved the new KCSC [Kahnawake Combined Schools Committee] Constitution significantly changing the membership from denominational representation to representation by schools from inside and outside of the community."
>
> (Kahnawà:ke Education Center, 2015-2017)

Kateri School, which was one of the elementary schools in Kahnawà:ke that already existed, remained an English language school (Kahnawà:ke Education Center, 2015-2017).

Currently, the organizational structure of the Kahnawà:ke education system consists of the Kahnawà:ke Education Center, which is the administrative body for Karonhianónhnha Tsi ionterihwaiensthákwa, Kateri School, and the Kahnawà:ke Survival School, that is governed by the Kahnawà:ke Combined Schools Committee (KCSC). The KCSC receives its direction from the community as a whole. As well, each school has its own in-school committee made up of parents/guardians. Each in-school committee has direct contact to the KCSC. The composition of the KCSC consists of 12 members including representation from in-school committees,

representation from outside schools funded by the Kahnawà:ke Education Center, representation from the Longhouse, representation from a community member who does not have children attending Kahnawà:ke schools, and one representative from the postsecondary adult student body. KCSC seats are elected by parents/guardians at an Annual General Assembly.

Figure 1. Diagram of Kahnawà:ke education system structure



This study focuses on the Kahnawà:ke Education Center's elementary schools. Karonhianónhnha Tsi ionterihwaiensthákwa is a Kanien'kéha immersion school with a mission to produce first language Kanienkehá:ka speakers, and to protect the culture. The school offers Kanien'kéha immersion in all core academic subjects from N-4. Grades 5-6 receive English as a secondary language, and French is offered as a third language of instruction beginning in grade four. The school also houses its own Curriculum Center where culturally-based curriculum and materials are developed. Kateri School offers a 50/50 English/French full day program in the nursery and

kindergarten classes, and 80/20 French immersion for K-2. Parents have the option to enroll their child in the regular English program with French and Kanien'kéha taught from grades 1-6. (Kahnawà:ke Education Center, 2015-2017).

Figure 2. Karonhianónhnha Tsi ionterihwaienstáhkhwa (school)

Figure 3. Kateri School

In 1994, the Kahnawà:ke Schools Diabetes Prevention Project was founded. KSDPP is committed to a long-term goal of decreasing the onset of type 2 diabetes among present and future generations (Macaulay et al, 1999). What began as a CBPR project, KSDPP has grown to become a well-established, long-standing CBPR health promotion organization that carries out

its mission through creating, implementing, and evaluating healthy lifestyle activities (Macaulay, Paradis, et al, 1997). It is represented by a Community Advisory Board made up of volunteers from public service organizations in the political, health, education, spiritual and economic sectors, full-time staff, and other community members concerned about preventing the disease, and for the well-being of future generations. Part of KSDPP CAB's role are to act as guides who help to set goals, ensure cultural appropriateness of its interventions, provide feedback throughout different phases of projects, and review all materials for external dissemination (Macridis, 2014). The Research Team is made up of academic researchers, local and non-local, who work together to build capacity among students, partner with academic institutions, national and international organizations. The team regularly meet to discuss, develop and take part in health-related research projects. KSDPP is guided by the KSDPP Research Code of Ethics that specifically outlines a set of principles for collaborative research that incorporates Haudenosaunee ways of knowing, teaching and consensual decision-making processes. I elaborate on its Research Code of Ethics in chapter 3.

Kahnawà:ke also takes pride in its strong history of control over its health services made up of Kahnawà:ke Shako'tiiatakenhnha Community Services (KSCS), which I will elaborate on in chapter 2, and the KMHC. Health services in Kahnawà:ke are governed by Onkwata'karitatshera, Kahnawà:ke's one health authority with a community health plan, which I will also elaborate in detail in chapter 2. Established in 1905, the KMHC is recognized as a role model to Indigenous communities and other communities for their ability to meet the many health needs of the community with services ranging from inpatient and outpatient care to nutrition and food services, rehabilitation and physiotherapy services, home care, a pharmacy,

dentist, and much more. Explained in the KMHC's most recent annual report (KMHC, 2017), is its new strategic goal to integrate a more client and family centered approach to care.

Since 1955, the hospital centre has been administered and largely staffed by the community (Macaulay, 1988). A new hospital was built in 1986 and is currently in the midst of a major expansion and renovation project (see figure 5). The newly renovated hospital, proposed to be complete in 2019, will house an entirely new 2-story wing with an added 25 long-term bed care facility. Further, the KMHC plans to implement a traditional medicine services department offering a community-based wholistic health program that is culturally appropriate for Kahnawake. One of KMHC's goals is to carry out the objectives set forth by Kahnawake's Community Health plan by reaffirming partnerships with community organizations throughout the community.

Figure 4. Kateri Memorial Hospital Centre (current)

Figure 5. Kateri Memorial Hospital Centre (expansion project 2019)

The hospital centre has an extensive diabetes education program which has evolved over several years. Prior to 1983, the status of persons with diabetes was generally undocumented (Jacobs, 2005). Beginning in 1983, a Diabetes Education Committee was formed to develop improved standards of diabetes care. Nurses, dieticians, and physicians have since been extensively involved in educating and caring for clients living with diabetes. As noted in the case study section above, from 1994-1997, with the support of KSDPP under the direction of KEC, KMHC implemented the HEP for Diabetes Program within Kateri School and Karonhianónhnha Tsi ionterihwaiensthákwa schools. In the early days of piloting and implementing the program, educators were mentored by the program's authors with full support from KEC and KSDPP, which had more human resources and availability to funding during that time. The program was regularly monitored for its delivery. A toolkit was provided to each school, along with carefully planned out lesson plans for teachers. Many of the original teachers who delivered the program, are now known as 'champions' for their enthusiasm for the program, their positive impacts made in promoting diabetes prevention education, and because of their unique approaches of encouraging the school community to role model healthy behaviors at school. After several years, because of other competing interests for teachers' and students' time, and various other reasons, the program became less of a priority, one of the reasons for the evaluation of the KMHC HEP for diabetes prevention in 2012.

KSDPP, in partnership with the KEC and KMHC, underwent the process of developing a school wellness policy. This policy included a nutrition policy, implemented in 2009-10 and a physical activity policy, implemented in 2012-13. Specific to the physical activity policy, which was led by (Garcia, Salsberg, and Hogan), nine priority target areas were identified, which included school active transportation programming (Hogan et al, 2014). To explore Active Transportation, a School Travel Planning Committee was formed comprised of community members including the two school principals, teachers, parents, a representative each from the school bus transportation department and the community protection unit, three KSDPP staff, one CAB member and a doctoral graduate student who acted as the researcher and facilitator of the School Travel Planning process (Macridis et al, 2016). Upon completion of each university students' project, the School Travel Planning Committee merged with KSDPP's Wellness Committee to oversee the continued implementation and success of programs and policies. The purpose of the committee shifted from working with graduate students to fulfill their research obligations, to regularly held meetings to discuss and share ideas about the Schools Wellness Policy (with Nutrition and Physical Activity components), ongoing activities related to health and wellness, such as the Active Transportation activities, food and nutrition in the schools, and other related school wellness activities. Moreover, the two schools developed their own in-school committees to support overall physical activity, active transportation and nutrition, and work to collaboratively on school initiatives and events (Macridis et al, 2016):

> "…[the Schools Wellness Committee] it's for all people that have activities within KEC schools, so we all know what's going on, for better collaboration, for volunteer requests, and to support the staff, parents and the schools with wellness, physical and nutrition activities…KSDPP coordinates it and chairs it, it's grassroots, not top heavy with executives. For example, KSDPP was able to arrange training for school monitors during Project Playground and after school activities. Another example was sending a call out to the

> Kanien'kehá:ka Onkwawenna Cultural Center Adult immersion program for volunteers to come and share the language at the Racers For Health Annual Invitational Run."
>
> (personal correspondence with KSDPP staff member, December 2015)

Because of my training in participatory research, and being accustomed to developing projects in a group setting, I first presented my research idea to KSDPP during a monthly CAB meeting. Prior to developing my doctoral research proposal it was suggested by the KSDPP research team that I join the Schools Wellness Committee as it seemed like the appropriate setting introduce my project. During this same time, I learned that the KMHC Community Health Unit had recently designated a staff member to begin revising the KMHC HEP for Diabetes Prevention, as this was also one of the recommendations from the evaluation of the program. A summer student was also hired to assist in this endeavour. After further discussion with KSDPP and hospital staff, we decided to create a small working group that would look at ways of forming a plan of action towards building a collaborated approach to health promotion for elementary schools under the umbrella of the Kahnawà:ke Education Center. Together, we approached the Schools Wellness Committee and were able to get the topic on the agenda for their next meeting.

This chapter tells the story that marked the beginning of this current research journey which is influenced by my own worldviews and rooted in participatory research. I introduced myself, explained the purpose and motivation for this study, and provided the context and partial background of this research endeavour. The case study provided the background and impetus for this study.

DISSERTATION LAYOUT

The next chapter (chapter 2) provides a synthesis of the relevant international and national literature, addressing the purpose and goals of this study. The third chapter discusses a methodological approach taken in this study. The fourth chapter details the research process, data collection and findings. The fifth chapter provides a discussion on the themes elicited during the three phases of data collection and ties it into assumptions made at the beginning of this chapter. The last chapter provides concluding remarks and reflections of this study.

CHAPTER 2: REVIEW OF THE LITERATURE

INTRODUCTION

This chapter examines relevant international and Canadian literature addressing the overall research goal of working with my community to build a culture-based health promotion curriculum for elementary students in Kahnawà:ke. The objective of this chapter is to explore existing health promotion models that are in alignment with this research; learn about how they were developed, implemented and transmitted to the school population; and to determine what important successes, concerns and gaps may exist around how school health promotion models are translated to end-users that could be beneficial or applicable to Kahnawà:ke. I also draw on personal correspondence and writings from individuals who are knowledgeable about health and research, and because I choose to support the contributions of like-minded Indigenous academics, I include their knowledge into this inquiry as much as possible.

Before sharing a literature synthesis on school health promotion and its relevancy in building a culture-based school health promotion model in a Haudenosaunee community, I set the context of this chapter with an explanation on the state of the health of Indigenous Peoples in Canada, describe how health is socially determined for Indigenous peoples, and provide a glimpse into a Haudenosaunee worldview about how education and health and wellness are related. The chapter then continues with a description and my interpretation of school health promotion, followed by an explanation of different successful school health promotion approaches and models that I perceived to be relevant to this inquiry. This chapter concludes with a look at the importance of evaluating school health promotion approaches and argues for the incorporation of culture into a health promotion curriculum for elementary students in Kahnawà:ke.

THE HEALTH OF INDIGENOUS PEOPLES OF CANADA

The historical context for Indigenous health in Canada

In Canada, Indigenous peoples collectively refers to the original inhabitants of this land that includes First Nations, Inuit and Métis. According to Statistics Canada (2017),

> "In 2016, there were 1,673,785 Aboriginal people in Canada, accounting for 4.9% of the total population. This was up from 3.8% in 2006 and 2.8% in 1996. Since 2006, the Aboriginal population has grown by 42.5%—more than four times the growth rate of the non-Aboriginal population over the same period. According to population projections, the number of Aboriginal people will continue to grow quickly. In the next two decades, the Aboriginal population is likely to exceed 2.5 million persons."
>
> (Statistics Canada, 2017)

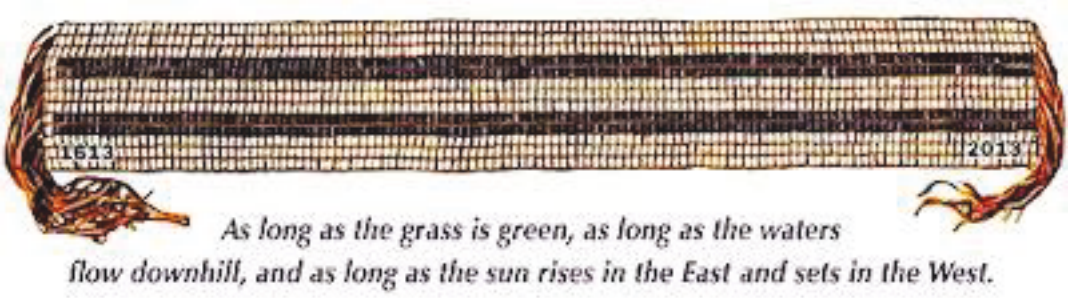
The non-urban Indigenous population is distributed across 615 bands, 2,284 reserves and 52 Inuit communities (Kirmayer, Tait and Simpson, 2009). The age structure of the Indigenous population is much younger than the rest of the Canadian population with notably a much larger percentage in Indigenous children and youth in Canada. For example, the average age of the Indigenous population was 32.1 years in 2015, almost a decade younger than the non-Indigenous population (40.9 years)(Statistic Canada, 2017). "It's a profile that one sees in low and middle-income countries typically, and not so much in the high-income countries (King & McGavock, 2017)."

In June of 2017, I participated in webinar led by Dr. Malcolm King and Dr. John McGavock where they outlined the historical context for Indigenous peoples' health in Canada. They communicated that, "History is important in terms of health because we need to understand how we got to the health disparities that currently exist" (King & McGavock, 2017). While going into depth about pre-and post-confederation treaties in Canada is beyond the scope of this study, I felt

sharing important facts from the webinar was important to introduce the principles of Kaswéntha, The Two Row Wampum Treaty. As Malcolm King explained, within Turtle Island, one of the first treaties that were agreed upon took place on the east coast between the Haudenosaunee Peoples and the Dutch. That treaty was named Kaswéntha (see figure 6), or the Two Row Wampum Treaty. The treaty (wampum belt) is represented by two rows of purple wampum beads basically symbolizing an agreement between two peoples to live side by side, and not to interfere in each other's affairs. As King goes on to explain, as 200 years went by though, things did not go that way. As other treaties spread to the west, he goes on:

> "…there was an urgent push to negotiate treaties with people who lived in the central part of Canada…subsequently, many other treaties were negotiated, and these were treaties of inequality. By the late 19th century many of our people were starving…as a result our people ended up on small reserves, often marginalized land, and dependent on government aid for survival….Importantly, as Canadians, we need to remember that the treaties allowed European settlement to occur…later on in the 20th century, there were a number of treaties in the far north that were much more equal again, which is important…it is also important to know that there are still unceded lands -- in British Columbia and around Ottawa for example -- and there is still treaty making going on."

Figure 6. Kaswéntha/Two Row Treaty Wampum Belt



Indigenous peoples suffer from poorer physical and mental health compared to non-Indigenous peoples (Adelson, 2005; King, Smith & Gracey, 2009; Reading & Wein, 2009). We also have a

significantly lower life expectancy (King, 2010; Tjepkema et al, 2010), and share health and social inequities reflected from the historical relationships (Richmond & Cook, 2016) with settlers that came to live in our traditional homelands such as loss of land, language and socio-cultural resources, racism, discrimination and social exclusion (Reading & Wein, 2009). Despite sharing social inequities and poorer health, we as Indigenous peoples also share many positive commonalities such as distinct ways of knowing according to our creation stories or 'original teachings' (Porter, 2008; Nelson, 2008) and increased language and culture maintenance and revitalization in many of our communities (Kirmayer et al, 2012). Moreover, in acts of self-determination, many Indigenous communities, such as the community of Kahnawà:ke, have assumed the right to control its own education during the 1960s and 1970s (Alfred, 2005) and health services at the Kateri Memorial Hospital Centre during the same era (Macaulay, 1988).

While it is said that the health of Indigenous peoples of Canada continues to improve (Health Canada, 2016), gaps remain in our overall health. For example, very similar to other countries where Indigenous peoples have been subjected to colonization, Indigenous peoples in Canada's diabetes rates are three to five times higher than the general population (Horn et al, 2007; Canadian Diabetes Association, 2013). Type 2 diabetes and obesity are major ongoing health issues amongst all Canadians, with increased prevalence for many Indigenous populations (Khayyhat Kholghi et al, 2017; Young et al, 2000). Once unknown to Indigenous peoples, type 2 diabetes is now being diagnosed at increasingly younger ages, and is seen as one of the most prevalent diseases leaving devastating impacts on those living with it such as end-stage renal disease, chronic kidney disease, lower limb amputation, foot abnormalities, and high rates of cardiovascular disease (Crowshoe et al, 2018). Because of this, there is an urgent need to create culturally appropriate community-based primary prevention programs to reduce the type 2

diabetes epidemic (Macaulay, Harris, Levesque, Cargo, Ford, Salsberg, et al, 2003). WHO (Langford et al, 2014) recommends wholistic, settings-based approaches for school-based health promotion that is taught in classrooms, linked with family, and supported by community.

Indigenous health and social inequities discourse articulates that we are at a critical health policy juncture where it is believed that the current situation is a reflection of the historic relationship between Indigenous peoples and Canada that is failing our people (Richmond & Cook, 2016), yet federal, provincial and regional public health strategies aimed at amending these inequities have had limited success (Health Canada, 2003; National Aboriginal Health Organization, 2001; Smylie et al, 2009). A major reason for this is that externally imposed strategies fail to take into consideration local understandings of health and illness, as well as local mechanisms of knowledge translation (Smylie et al, 2004; Smylie et al, 2009).

Self-determination for Indigenous peoples refers to a right to determine our own destiny and the dignity and freedom we are due for us to be self-sufficient (Alfred, 2005). In Canada, it was reported in 2010 that there are more than 515 Indigenous elementary and secondary schools available to approximately 109,000 students on what is called 'reserve lands' (Chiefs Assembly on Education, 2012). This same report states that the majority of students (75%), were enrolled in 'on-reserve' schools. In the context of asserting control of and determining the course of our own school health promotion strategies then, it makes sense to explore programs that are wholistic, inclusive of family and community, and also include Indigenous ways of knowing. Discourse focusing on school contexts as social determinants of health informs us that up until now, much of the research has focused on adults, but should be directed more towards children because disparities often take place in early childhood (Huang et al, 2013).

Social determinants of health

School contexts as social determinants of child health must be considered when working to eliminate child health inequities (Huang et al, 2013). Social determinants of health influence the health of the world's citizens, and in most countries, minorities and Indigenous peoples suffer greater ill health than other segments of the population (Marmot, 2006; WHO, 2007). According to the Public Health Agency of Canada, 2016 (PHAC), some of the social determinants that influence health are education, personal health practices and coping skills, healthy child development, income and social status, employment conditions, and physical environments. The living conditions that we experience, often not by choice, are what shape our health (Mikkonen and Raphael, 2010). Many Canadians are not aware that our health is also shaped by the way wealth and income is distributed, among other things, and more importantly, most are not aware that while Canada is "one of the world's biggest spenders in health care, we have one of the worst records in providing an affective social safety net (Mikkonen & Raphael, 2010, p. 5)." Huang et al (2013) have conceptualized school determinants into six domains (see Table 1):

Table 1: Domains of school determinants of health (Huang et al, 2013)

Physical and Structural Environments	*Health Policies*	*Health Programs*	*Health Resources*	*School Climate*	*School Composition*
Activity space Physical safety Air quality Hazardous environments Rural/urban location	Policies for health education and school safety	Nutrition Physical education Prevention/intervention Health services	Availability of nurses Mental health professionals and physical specialists Links between school and community health resources	Violence/bullying School norms Academic values Teacher-child relationships Family-school connections	Average pupils' socio-economic status Student and staff gender racial/ethnic composition School size

The health and wellbeing of Indigenous peoples in Canada is influenced by a wide range of social determinants (Reading & Wein, 2009; Czyzewski, 2011) such as the history of colonization and current social, economic, political and geographic issues (King, 2010; King et al, 2009). Understanding the social determinants of health is a key factor in the health status gap between Indigenous and non-Indigenous peoples of Canada (King, 2010). Closing the gap is achievable through understanding deep-rooted causes, and how to use that knowledge to correct disparity (King, 2010). As categorized by Reading and Wein (2009), the social determinants of health that affect Indigenous peoples are distal (historical, political, social and economic contexts), intermediate (community infrastructure, resources, systems and capacities), or proximal (health behaviours, physical and social environment). Some examples of these determinants of health include lack of education and high unemployment, poverty, overcrowding, and poor quality of housing. In addition, the impact of colonization, marginalization, exclusion, the effects of residential schools, forced assimilation, ongoing experiences of racism and discrimination and the negative portrayal of Indigenous people in mainstream society, perhaps more discrete, are examples that contribute to patterns of persistent inequality (Kirmayer et al, 2011). Reading and Wein (2009) place education as both a proximal and intermediate determinant of health (see table 2), and have resolved that inequities for Indigenous peoples in Canada exist because of inadequate distribution of educational resources, and that school curricula continue to lack any focus on "culturally competent" content or learning styles (p. 17).

Table 2: Health inequalities and social determinants of Aboriginal Peoples' Health

Distal	*Intermediate*	*Proximal*
Colonialism **Racism and social exclusion** **Self-determination** →	Health care systems **Educational systems** Community infrastructure, resources and capabilities →	Health behaviours Physical environment Employment and income **Education**

	Environment stewardship Cultural continuity	Food insecurity

When examining school health promotion through a social determinant of health lens, research and practice indicates that many school health programs are not relevant or culturally appropriate for the contexts of many Indigenous school systems (NCCAH, 2010). For example, many school health curricula are focused on issues of sickness, and do not challenge deficit models in health promotion which some say could be improved upon using a decolonizing approach (Pyett, Waples-Crowe, & van der Sterren, 2008). Finally, evidence shows that markers of cultural continuity, or communities that have taken steps to preserve and rehabilitate their own cultures, have better rates of success (Chandler & Lalonde, 1998) and that Indigenous peoples should be supported in the development of their own services that foster culturally appropriate and effective supports that can serve as models for other Indigenous communities (Weiman, 2009).

An Indigenous worldview of education and wellness

Together, as Indigenous peoples, we make up approximately 370 million, or 5% of the world's population (United Nations, 2009). We are very diverse in terms of our languages, ceremonies, and ways of knowing prescribed to us over centuries through creation stories, oral teachings, philosophies, and 'original instructions'. Our stories teach us to get along with one another, respect our relations on earth, and to value diverse ways of thinking (Nelson, 2008; Porter, 2008). Given our distinctness from one nation to another, and depending on our geographical locations, we do share many similarities by way of a wide range of concerns including identity, healing, spirituality, sustainability, food and agriculture, to name a few (Nelson, 2008). While school health programs and approaches have been initially developed in Europe, Canada, the United States and the Western Pacific in response to their respective Western cultures and

traditions, current research and practice has shown that current school health programs are a mismatch for Indigenous peoples stemming from "basic differences in conceptualizing health between Indigenous and mainstream populations" (Cajete, 2000; NCCAH, 2010). For example, a typical Western approach to identifying and solving a problem will then attack the problem from a deficit-focused perspective, where Indigenous communities are more likely to "focus on the strengths of a situation which will lead to solution seeking in collaborative and consensus-building approaches" (NCCAH, 2010). Our sense of health and wellbeing is linked to our sense of who we are:

> "Indigenous health means caring for the environment, water, air; preserving cultural knowledge, language and traditions; promoting peaceful relationships among cultures and religions; and promoting well-being so that generations to follow inherit essentials of life, a strong identity, and peace."
>
> (National Collaborating Centre for Aboriginal Health, p. 7, 2010)

Indigenous perspectives on health and mental health are understood from a worldview that highlights concepts of wholeness, balance, the importance of relationships with family, community, ancestors, and the natural environment (Cajete, 2000; Mussel, 2008). Knowledge of our traditional languages and culture is crucial to identity and is especially important as a link to spirituality, an essential component of Indigenous health (King, Smith & Gracey, 2009, p. 78). Since the arrival of settlers and newcomers to Turtle Island, its original inhabitants' lives have been drastically altered. "We have been forced to change almost every aspect of our lives (K. Saylor, personal correspondence, 2014)." Both in Canada and internationally, it is well documented that colonization has had a fundamental impact on the health of Indigenous peoples (Allan & Smylie, 2015). In examining our own historical timeline, we know that our ancestors lived a balanced life, and that Indigenous ways of being and knowing provided the foundation

for health and wellness, therefore must be foundational to school health programs for Indigenous children (NCCAH, 2010).

In Gregory Cajete's books *Native Science: Natural Laws of Interdependence* (2000) and *Look to the Mountain* (1994), he extensively outlines the 'coming-to-know' process. Cajete, a Tewa from Santa Clara Pueblo, New Mexico explains that there is no word for education in his mother tongue and that it can best be described in English as 'coming-to-know', or 'coming-to-understand'. This, he sees, as a metaphoric journey or a process in the quest for knowledge and understanding, and that all teachings must include becoming conscious of Indigenous values. Further, he explains, knowledge among Indigenous peoples was, and still is acquired in a very different way (Cajete, 2000; p. 80-81). Further, he explains:

> "Tribal teaching and learning were intertwined with the daily lives of both teacher and learner. Tribal education was a natural outcome of living in close community with each other and the natural environment. The living place, the learner, extended family, the clan and tribe provided the context and source for teaching. (Cajete, 1994, p. 33)…The ultimate goal of Indigenous education was to be fully knowledgeable about one's innate spirituality (p. 42)."

Coming to know was comprised of orally transmitting knowledge from generation to generation through a direct and balanced relationship with Mother Earth and all plant and animal life. Indigenous peoples learned through ceremony, art, song and a philosophy of healing and understood that illness was caused from an improper relationship with the natural world, spirit world, community, and/or to one's own spirit and soul (Cajete, 2000; p. 117).

As Indigenous peoples have aggressively moved to establish their own community schooling systems, and took away control of non-Indigenous educators and school boards, we continue on the journey of restoring our language and traditions into our school systems. It is in this belief

though, that there are possibilities to build intellectual bridges between two entirely different systems of knowing the world (Cajete,1994; p. 13).

Like many other Indigenous nations, despite attempts at assimilation, the traditional Haudenosaunee people have kept much of their value and belief systems relatively intact; that cultural congruence within our societies begins within our Creation Story; and is the essence that develops our worldview, identity and existence (M. Myers, personal e-mail, December, 2008). Long ago, knowledge of our traditions, or 'coming to know', was orally transmitted from generation to generation "in elaborate but carefully constructed forms" through understandings of creation that guided understandings of our role in society, and our connection to the people and all living things we were born to (Mohawk, 2005). Re-establishing this deep connection is part of our healing. As Herrick (1995, p. xi) points out in Iroquois Medical botany,

> "[O]nce the differences between the Western or European and Iroquoian views of the things and events of the universe are understood…it is seen that any culturally imposed, European concepts necessarily become altered as they are used in relation to a perception of the university that is quite unlike that of the Westerner."

Among the Haudenosaunee people, the Kanien'kehá:ka phrase for I am healthy is *wakata'karí:te*. Several years ago, I spoke to a Kanien'kéha speaking community member and asked him to translate the phrase into English. His reply was:

> "Wakata'karí:te shows the idea that something causes me to be healthy, or makes me healthy. In the verb, it doesn't say to cause or make one be healthy, it is in the pronoun. So it's just the thought of being healthy, it's having something in your surroundings, mind or spirit that makes you healthy physically, and also spiritually."
>
> (Akwiratékha, personal e-mail, summer of 2007).

Kakaiónstha, an elder, longtime educator and former school administrator in Kahnawà:ke recently described to me very eloquently that:

> "Wellness and education are intertwined, we depended on a cycle of ceremonies that coincided with our diet, this was our education, it is taught through the language…of course contemporary education systems are not the same, but it [education] has to be a way of life. If you are Kanien'kehá:ka [Mohawk], you are healthy, it's all in our thinking, our Indigenous mind told us to take care of Mother Earth."
>
> (Kakaiónstha, personal correspondence, December, 2016)

There was a challenging time in our history when the Haudenosaunee were at war amongst one another. During that time, a man who has come to be known as The Peacemaker, came to the Onondaga Nation carrying a message of peace and unity. He planted a great white pine, the Tree of Peace, and instructed the Five Nations to lay down their weapons of war and accept his message of the Kaianera'kowa (The Great Law of Peace). The roots from the tree spread north, south, east and west, whose nature was peace and strength that was firmly planted in the soil providing our people with a spiritual foundation (Wallace, 1994; Whyte, 2015). This is the foundation for a wholistic education and healing (Whyte, 2015).

Gregory Cajete's (2000, 1994) challenge to Indigenous educators is to build on understandings of the world from multiple perspectives, which he states is an Indigenous approach to learning and thinking that is guided by an Indigenous epistemology, or how you come to know what you know, in which he calls a culturally responsive curriculum design.

SCHOOL HEALTH PROMOTION

> "A health promoting school aims at achieving healthy lifestyles for the total school population by developing supportive environments conducive to the promotion of health. It offers opportunities for, and requires commitment to the provision of a safe and health enhancing environment."

(Lister-Sharp, Chapman, Stewart-Brown & Sowden, 1999)

School health promotion could also be defined as "any activity undertaken to improve and/or protect the health of all school users (St. Leger et al, 2010)". Young school children spend one third of their weekdays at school, consume up to two meals plus snacks per day, and have opportunities to engage in a variety of physical activities (Kehm, Davey & Nanney, 2015) both in and outdoors at school. Academically, the Canadian education system is among the best in the world yet students' eating and activity levels still lead to prevalence rates of overweight that statistically is among the highest in the world (Veugelers & Schwartz, 2010). Intervention and prevention efforts are needed early on in a child's life and should continue through adolescence to reverse current trends of life threatening diseases such as type 2 diabetes and obesity (Kehm, Davey & Nanney, 2015). School-based programs appear to reach more community members because school is universally available (Moselle & Ball, 2013). Research has proven that consistent, positive relationships between health and education sectors, as well as targeted school interventions such as school breakfast programs that promote school health, improve academic and social achievement (Bassett-Gunter et al, 2012; IUHPE, 2009)

According to St. Leger and Young (2009), school health promotion has been ongoing for nearly a century. Today, school settings are taking a more active role in creating supportive environments for youth and are widely acknowledged as an appropriate and logical place to promote and support healthy behaviours, (McIsaac et al, 2012; Lister-Sharp et al, 1999) and as a promising place for carrying out intervention and prevention efforts (Kehm, Davey & Nanney, 2015). The school setting can transmit health information to the student, in the home, and throughout the community (Veugelers and Schwartz, 2010). Healthy behaviors learned at school have great potential to become lifelong habits and contribute to child health in the short term and

chronic disease prevention in the long term (Veugelers and Schwartz, 2010). A healthy school community can support the growth, development and overall health of children (Basset-Gunter et al, 2012) and is one that acknowledges the joint responsibility of the school, family, and the broader community, who are also part of the school (Basset-Gunter et al., 2012).

History and Terminology

School health promotion is referred to in Canada and the United States as Comprehensive School Health (CSH), and in Europe and Australia, as Health Promoting Schools (HPS)(Veugelers & Schwartz, 2010). It is also referred to as a Coordinated School Health Program (Miller & Bice, 2014). The CSH and HPS concept was proposed in the early 1980s by WHO and defined as a notion "that is constantly strengthening its capacity as a healthy setting for living and learning (2006)."

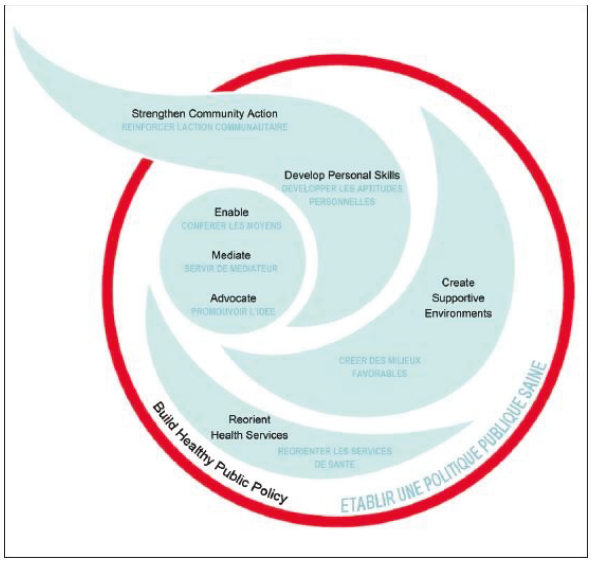
> "Comprehensive school health is an internationally recognized framework for supporting improvements in students' educational outcomes while addressing school health in a planned, integrated and [w]holistic way."
>
> (Joint Consortium for School Health, 2016)."

In 1986 the Ottawa Charter for Health Promotion provided a framework for CSH, which is currently implemented in over 43 countries around the world (Veugelers and Schwartz, 2010; Lister-Sharp et al, 1999). The Commission on Social Determinants of Health of WHO (1986) suggests that a comprehensive school determinants of health (SDH) approach should include three sequences of research: 1) identification of the social determinants that contribute to inequities in health, 2) clarification of the mechanisms by which social determinants generate these inequities, and 3) documentation of the specific levels of intervention and policy entry points for action on SDH (Huang et al, 2013; WHO, 2010). Schools have diverse school

populations that vary dramatically with regards to social and physical environments, and communities (Bassett-Gunter et al., 2012). Bassett-Gunter et al (2012) believe that creating better healthy school community initiatives can be achieved if educators, health practitioners and policy makers work towards consensus or common understandings on terminology which are essential conditions for healthy school communities (Bassett-Gunter et al, 2012). It will also perhaps be easier, they claim, for researchers to evaluate incomes and processes that could determine better measurement tools (Bassett-Gunter et al, 2012).

The emblem below represents a symbolic approach to health promotion adopted at the First International Conference on Health Promotion in Ottawa on November 21, 1986 (Government of Canada, 1986). The logo, still used today by WHO, visualizes the notion that worldwide health promotion can be an all-encompassing, comprehensive, multi-strategic approach. The red outside circle represents the goal of "Building Healthy Public Policies"; the grey/green round spot within the circle represents strategies (enable, mediate, advocate) for health promotion; and the three wings represent four key action areas for health promotion: 1) Strengthen community action; 2) Develop personal skills; 3) Create supportive environments; and 4) Reorient health services. Since 1986, advancements have been made in the creation of school health promotion models but as WHO recommends, school-based interventions which include health curricula taught in classrooms, coupled with supportive school environments and links with family and community is vital (Khayyat-Kholghi et al, 2017). According to Bassett-Gunter et al (2012), few studies have examined the effects of a school health promotion that incorporates *all* components of healthy school community frameworks.

Figure 7. Ottawa Charter for Health Promotion emblem (1986)



Within Quebec and Canada, there are numerous preschool, primary and secondary school-based programs, toolkits, and health education program guidelines available to educators that are easily accessible from the internet, and directly from provincial and federal health departments that can easily be adapted to suit the needs of community schools. As well, Health Canada has partnered with different government branches such as the First Nations and Inuit Health Branch (FNIHB) by funding community-based health promotion programs and working with local schools to improve health programming. There are also substantial efforts underway to integrate health promotion research findings into practice (Huang et al, 2013). While there are many different program names as well as ways that school health promotion models can be approached, adapted, and delivered, the underlying concepts are the same and are based on the Ottawa Charter for Health Promotion (Murray et al, 2007; Stewart-Brown, 2006), that is, health programming that encompasses the school environment, teaching and learning, school health policies, and partnerships and services. Beyond CSH is community wellness planning. In an Indigenous context, when school health promotion is coupled with community wellness planning, and community-based health promotion research, chances for its success may increase

through knowledge translation activities designed to share information and bring community organizations together (Smylie et al, 2009).

Community Wellness Planning

In 1996, following a five-year process of an independent inquiry into the relationships between Indigenous peoples in Canada, the Canadian government, and Canadian society, The Report from the Royal Commission on Aboriginal Peoples (RCAP) was released (Smylie et al, 2009; RCAP, 1996). Since then, the TRC (Truth and Reconciliation Commission of Canada, 2015a, 2015b) published the TRC of Canada Calls to Action document providing a detailed outline of ways to address the legacy of residential schools and advance the process of Canadian reconciliation. While the TRC of Canada is now closed, the work continues through the National Centre for Truth and Reconciliation located in Winnipeg, Manitoba. The 94-point Call to Action document calls upon federal, provincial, territorial, and Indigenous governments to redress the legacy of residential schools in the areas of child welfare, education, health, language and culture, and justice (TRC, 2015). The document not only addresses Indigenous rights, but it suggests to develop joint strategies to address gaps in Indigenous education and health care, to provide adequate funding, to develop culturally appropriate curricula in our schools, to identify teacher-training needs, and to accommodate Indigenous peoples as full participants in their own decision-making processes (TRC, 2015). Specific Calls to Action relevant to this study are:

Table 3: Truth and Reconciliation Commission Calls to Action (2015)

Legacy	*Call #*	*Call to Action*
Education	10. iii.	Developing culturally appropriate curricula.
Language and culture	14. iv.	The preservation, revitalization, and strengthening of Aboriginal languages and cultures are best managed by Aboriginal people and communities.
Health	18.	We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential

		schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties.

As Smylie et al (2009) and Cajete (2000, 1994) point out, prior to colonization, Indigenous peoples had their own systems or 'coming to know' processes that valued community togetherness. In the years following the RCAP Report, the TRC of Canada has been urging Canadians and governments to take into account the importance of community in raising our children (TRC, 2015, p. 111), and with respect to research on health promotion, to be aware of the importance of locally specific, community generated understandings of the ways that research is transferred or translated to community. Presently, many Indigenous communities across Canada have recognized the need to 're'-create their community wellness/health plans. I provide here two examples of these ongoing efforts: 1) in the Baffin region of Nunavut and, 2) in the community of Kahnawà:ke. The intent is to showcase a positive example of an ongoing partnership, and the potential for this type of action to take place in Kahnawà:ke with regards to building a school health promotion model.

Self-determination includes community wellness planning that is determined through exercising autonomy and moving away from imposed government programs that have proven to be ineffective or inadequate for many Indigenous peoples. The people in the Baffin Island Region of Canada are currently engaged in a community-based agreement between Health Canada and the Nunavut government where funding has been allocated to five northern communities (Clyde River, Igloolik, Kimmirut, Pond Inlet, and Resolute Bay) for the development of a five-year (2017-2022) community wellness plan for each community. I recently was in contact with Malcolm Ranta, Manager of Community Wellness Programs (CWP) (Department of Health, Government of Nunavut) who explained in detail how CWPs are being developed by each

community rather than outside consultants and governments:

> "Communities have full autonomy over their Community Wellness Plans (CWPs) and how they chose to allocate the funding and what health priorities they wanted to focus on. As you can see, every CWP is very different – we really wanted to give communities the opportunity to do their CWP in whatever format they chose. Community Wellness Plans outline how they spend their funding for the next five years, outlines the community consultation and the community decision-making processes. They are running their own plan, it's not the government writing it, or consultants, it's the health committee at the local level, it's a special process where every community has a different wellness plan, it has to be unique to each community."
>
> (Malcolm Ranta, personal e-mail correspondence, June 2017)

Within Kahnawà:ke, Onkwata'karitáhtshera (for all the people to be concerned in the area of good health) is Kahnawà:ke's health and social service agency that is responsible for overseeing community control of the people of Kahnawà:ke's health, and its health plan. Mandated by a Mohawk Council of Kahnawà:ke Resolution, the agency was created in 1983, has evolved throughout the years, and now has a Kahnawà:ke Community Health Plan (2012-2022) in place. Onkwata'karitáhtshera's mission is to plan, maintain and improve health and social services for all Kahnawà:kehro:non through a single unified approach to community health http://www.onkwa.net/pdfdocs/Constitution.pdf. It is responsible for planning, maintaining and improving health and social services for the wellbeing of the people of Kahnawà:ke. Onkwata'karitáhtshera is linked to many public service organizations including all schools, the local hospital, the Mohawk Council of Kahnawà:ke, fire and ambulance service, and community services. Kahnawà:ke Shakotiia'takéhnhas Community Services (KSCS) is one of Kahnawà:ke's largest public service organizations that offers services to community members ranging from addictions to water quality. Services offered to the community fall into the following categories:

Table 4: Services offered by Kahnawà:ke Shakotiia'takéhnhas Community Services

Kahnawà:ke Shakotiia'takéhnhas Community Services	
Adults **Community** **Elders** **Families**	Support Services, Support Counseling, Traditional Services, Youth Protection, Psychological Services, Addictions Response Services Parenting, Anger Management, "AS NEEDED" Groups, Enhanced Prevention, FASD-HIV/AIDS – Healthy Sexuality, Onkwanenra Our Gang, Teen Group
Community	**Kahnawà:ke Community Health Plan**, Aboriginal Diabetes Initiative (ADI), Aboriginal Head Start On-Reserve, Aionkwatakari:teke, Brighter Futures Program, Children's Oral Health Initiative, Communications, Maternal and Child Health, National Aboriginal Youth Suicide Prevention Strategy, Non Insured Health Benefits, FASD-HIV/AIDS-Healthy Sexuality
Elders	Elders Day Program, Adult and Elders Services Counsellor, Elders Caseworker, Wheels to Meals, Meals on Wheels, Turtle Bay Elders Lodge, Home Care, Home Care Nursing
Families	Parenting, Foster Care, Support Counseling, Enhanced Prevention, Traditional Services, Kids in the Middle, Youth Protection, Addictions response Services, Psychological Services, "AS NEEDED Groups, Teen Group, Onkwanenra Our Gang, FASD-HIV/AIDS-Healthy Sexuality, Anger Management
Households	Environmental Health Services
Parents	Parenting, Foster Care, Support Counseling, Traditional Services, Enhanced Prevention, Teen Group, Onkwanenra Our Gang, FASD-HIV/AIDS-Healthy Sexuality, "AS NEEDED" groups, Kids in the Middle
Special Needs/Mental Health	Family Support and Resources, The Young Adults Program, The Teen Social Club, Lifeskills Support, Independent Living Center
Youth	Foster Care, Onkwanenra Our Gang, Teen Group, FASD-HIV/AIDS-Healthy Sexuality, Enhanced Prevention, Psychological Services, Support Counseling, Anger Management, "AS NEEDED" Groups, Youth Protection

The above mentioned are two examples of ongoing health planning initiatives that are created, organized and operated within Indigenous communities; and that demonstrate communities' responsibility to control health priorities and resource allocation in the continued effort to determine our own health priorities and health promotion programs. The Kahnawà:ke Community Health Plan recognizes there are gaps in health service needs within our schools and allocates resources and personnel towards nutritional programs, prevention programs, school

health, and a school nurse and dental hygienist from the local hospital that delivers health promotion programs in primary and secondary schools in the community.

As well, in response to the threat of type 2 diabetes emerging as a major public health threat in Indigenous communities and within Kahnawà:ke, KSDPP, which began in 1994, partners with the schools and several community organizations, by designing and implementing intervention activities for schools, families and community to prevent Type 2 diabetes (see www.ksdpp.org). It also partners with academic institutions such as McGill University, Université de Montreal, and Queen's University by conducting community-based research and evaluation projects on these activities, and is engaged in training intervention workers and researchers interested in preventing the disease. Later on, I will elaborate on the roles and responsibilities of KSDPP and its importance in my research.

School Health Promotion Policies

"Policy, practice and science perspectives have helped shape the Canadian landscape around creating healthy school communities." (Bassett-Gunter, 2012, p. 4). Policies could include directions for action, written codes, regulations bearing legal authority, guidelines, strategies, strategic plans, priorities and resource allocations (McIsaac et al, 2012). There are different levels of school health promotion policies either created by local school districts, provinces, territories, or by the federal government (McIsaac et al, 2012) and can be as simple as decisions made by classroom teachers to reward students for good behaviour (Veugelers & Schwartz, 2010). Policies or guidelines that support school health promotion are crucial to the success of a CSH model, especially if they are tailored to a school-specific context, school priorities, and to a specific culture (Veugelers and Schwartz, 2010). According to one case study by McIsaac et al

(2012) in Nova Scotia, it was found that although the provincial government had implemented health promotion policies for schools, these policies were rarely enforced. The reason for this, they contend, is that although governments and different levels of jurisdictions create school health promotion policies, there is sometimes a disconnect between policy makers and actual school staff. They therefore suggest that optimizing the impact of such policies would better occur if different levels would work together (McIsaac et al, 2012).

Also, very important is the creation and implementation of school nutrition and physical activity policies. According to Salsberg et al. (2015), and Salsberg and Macridis (2016), "Research has shown that without community engagement and ownership, programs have a lesser chance of achieving traction." Kehm, Davey & Nanney (2015) recently surveyed data on nutrition and physical activity policies in the United States which were available for 28 states, representing 6732 secondary schools. They report that "[R]esearch indicates that family and community involvement in schools is associated with improvements in students' academic achievement, higher attendance rates, and improved quality of school programs, as well as improved student behavior and school discipline (Kehm, Davey & Nanney, 2015)." There is evidence that family and community involvement can potentially influence school nutrition and physical activity standards that point to the need for more active participation from community members in the development of such policies (Kehm, Davey & Nanney, 2015). It has also been found that recommended policies and practices have not yet been uniformly adopted across the country, and though the role of family and community involvement in the development and implementation of school nutrition and physical activity policies has the potential to have a positive influence, involvement remains low in schools. Again, "increased efforts are needed to encourage collaboration among schools, families, and communities to ensure the highest health standards

for all students." (Kehm, Davey & Nanney, p. 90). Furthermore, Kehm, Davey & Nanney (2015) argue that it is important to attempt to foster better understandings of how policies can be more effective (Kehm, Davey & Nanney, p. 91, 2015).

Up until very recently, school policy makers have focused on excellence rather than health promotion (McIsaac et al, 2012). Historically, health education at schools has been taught in the classroom as a topic, but HPS promised to shift the topic-based approach to establishing and enhancing the whole school environment, or a more wholistic approach (McIsaac et al, 2012). This requires new ways of thinking about the role that school plays (McIsaac et al, 2012) while our children are under school care each school week day. While schools are beginning to take a comprehensive approach to health promotion at school, which are unique to their own setting, more research is needed to examine existing health promotion polices and to adapt approaches or models that foster health and learning that engages staff, students, parents and community (McIsaac et al, 2012).

SCHOOL HEALTH PROMOTION STRATEGIES

In recognition of the school setting being an important place to implement health promotion policies, different models and approaches to school health promotion have been adapted from WHO's HPS approach (1997). Many schools throughout the world currently cover a wide variety of health promotion topics relevant for young school children that include proper nutrition, hygiene, safety, and physical activity (St. Leger & Young, 2009). Apart from including health topics into school curriculum, a HPS builds health into all aspects of life in school and community based on a concern that health is essential for learning and development (Kumar &

Preetha, 2012). According to the International Union for Health Promotion and Education (2009), the rationale for healthy school communities include:

- promoting health and well-being of students
- upholding justice and equity,
- involving student participation and empowerment,
- providing a safe and supportive environment,
- linking health and education issues and systems,
- addressing the health and well-being,
- collaborating with local community,
- integrating into the school's ongoing activities,
- setting realistic goals, and
- engaging parents and families in health promotion.

Just as there are many definitions of policy categories for school health promotion (regulations, guidelines, standards, etc.), there are many definitions or areas of health promotion topics relevant to schools. For example, the following table, summarized by McIsaac et al (2012), displays different health topics and their definitions used in a case study on school health promotion policies in Nova Scotia.

Table 5. Definitions of health promotion topics (McIsaac et al, 2012)

Definitions of health promotion topics	
Mental health	Initiatives in schools that seek to build the social, emotional and spiritual.
Substance use and misuse	School-based drug reduction initiatives that are interactive rather than teacher-centered and focus on life skills.
Hygiene	Initiatives that support hand washing, drinking clean water and use of proper sewage systems.
Sexual health and relationships	Education programs that are conducted by trained and empathetic educators who focus on the sexual health and relationships between students.
Healthy eating and nutrition	Initiatives and programs that follow evidence-based teaching practices to support healthy eating behaviors of students.
Physical Activity	Initiatives that include the development of skills and knowledge, establishing and maintaining suitable physical environments and resources and upholding supportive policies to enable all students to participate through the school day.

Safety	Practices that are implemented and maintained to ensure the physical and emotional safety of students and staff.

Schools have been involved in health education for a very long time now, and have health as part of their curriculum, although "it is usually timetabled and largely consists of information on topics such as a healthy diet, hygiene and safety." (St. Leger & Young, 2009). In 2009, St. Leger & Young created and published the document "Promoting Health in Schools: From Evidence to Action" for anyone involved in education (i.e.- teachers, nurses, principals, parents, policy makers, school boards, regional education authorities). The document focuses on a HPS approach, and explains why health promotion in schools is important; why education and health policy-makers should work together; concepts of health education and health promotion in relation to schools; the relationship of a topic approach to a wholistic approach; and the scientific basis for the art of promoting health in schools. Below are further examples of already established approaches to school health promotion offering educators accessible materials, toolkits and ideas to building health promotion approaches into their schools.

1. *Healthy Schools - Guide for the education community and its partners - Quebec, Canada*

HPS and CSHP aim to achieve health promotion initiatives that move beyond classroom-based models towards school children's attitudes and behaviors, as well as their environment (Deschesnes, Martin & Hill, 2003). In 2005, a committee, comprised of various Quebec-based institutions from the government, health, and education sectors, came together to create *Healthy Schools: Guide for the Education Community and its Partners*. The guide calls on community stakeholders (elementary and secondary schools, school boards, municipal and socioeconomic organizations) to strategically work together to "meet young people's needs for educational

success, health and well-being in a consistent and optimal way." (Gouvernement du Québec, p. 7). It provides a framework that involves training school staff, creating activities for students, looking at ways to support and coach parents, including parent participation and rallying the support of the community. Implementing this type of success plan for health schools, it suggests, requires fostering commitment from all involved, and including an evaluation process in its design. Though evaluations are a means of improving interventions and monitoring progress of a given program, Deschesnes, Martin and Hill (2003) report that evaluation results of HPS and CSHP are still few in number. Some of the key conditions essential for introducing these types of approaches include better planning and coordination, translating efforts into practice, facilitating effective partnerships, and having the political and financial commitment from various decision makers. See:

http://www.education.gouv.qc.ca/fileadmin/site_web/documents/dpse/adaptation_serv_compl/GuideForTheEducCommunityPartners_HealthySchools_19-7062a.pdf).

2. Physical & Health Education (PHE) Canada (Ontario, Canada)

Founded in 1933 by Dr. Arthur S. Lamp of McGill University, and originally named The Canadian Physical Education Association, Physical and Health Education Canada (PHE Canada) as it is known today, is a professional organization supporting physical and health educators who are working towards making their schools health promoting schools http://www.phecanada.ca. PHE offers a free curriculum-supported program that combines physical activity, healthy eating and emotional well-being for students in kindergarten to grade 6. The *At My Best* toolkit offers lesson plans along with teaching resources, classroom posters, storybook and take-home materials, a music CD and more. The goals of the At My Best toolkit are to:

- Help build student awareness of their self and their emotions;

- Help students see connections between physical activity, healthy eating and emotional well-being;
- Support the delivery of quality Health and Physical Education programs;
- Provide an opportunity for daily physical activity (DPA);
- Provide opportunities to build connections with parents and communities with a focus on healthy living;
- Provide cross-curricular learning opportunities, particularly supporting the development of literacy and numeracy skills; and
- Support character education and the development of life skills.

PHE works with many partners to develop resources for Canada's children and youth, including the Wabano Centre for Aboriginal Health in Ottawa, Ontario. Part of their mission is to advocate for quality physical education and education programs offered in HPS. Their *Health Community Concept Paper*, prepared by the Propel Centre for population Health Impact for PHE (Bassett-Gunter et al, 2012) draws on the Ottawa Charter for Health Promotion, and uses the socio-educational model which suggests that individuals (e.g.- students and educators) are affected by multiple, interacting levels of influence (individual, interpersonal, family, school & community, and society).

3. Healthy Schools Toolkit - Toronto Public Health – City of Toronto, Ontario

Published by Toronto Public Health, the 59-page *Healthy Schools Kit* is designed to guide schools through a step by step process for creating a healthier school by addressing school health in a planned, integrated and wholistic way. In order for the toolkit to be successful and sustainable, the approach relies on creating partnerships between health, education, parents, students and community stakeholders working together on a school health committee. Committees in turn choose any or all of the resources provided in the toolkit to support their healthy schools work. This integrated approach begins with four foundations for a healthy school:

1. High quality instruction and programs

2. A healthy physical environment
3. A supportive social environment
4. Community partnerships

It calls for the creation of a 'healthy school committee', and to seek out a 'healthy school champion' and 'healthy school committee members' who could act as role models for healthy behavior and who have the time to work as part of a team to carry out a healthy school action plan such as recruiting others to help volunteer. Four steps (forming a healthy school committee; identifying strengths and needs; developing and carrying out the action plan; and evaluating and celebrating achievements) help to carry out the goal of raising awareness, motivating the school community, and recruiting others. See: (https://www1.toronto.ca/city_of_toronto/toronto_public_health/healthy_communities/files/pdf/toolkit.pdf).

4. Whole School, Whole Community, Whole Child Model (WSCC)(United States)

Developed in the United States, another known collaborative approach to education and health is the Whole School, Whole Community, Whole Child Model (Lewallen, et al, 2015) (see figure 3) which is intended to be an expansion and update of the SHP approach. The WSCC model supports a collaborative approach to learning and health, and claims to help take health and education out of 'silos', which for too long has been the norm. It is seen as an ecological approach that can address the need to engage students as active participants, and to combine health with learning. The model outlines how school, staff and students are part of the local community. In this model, the child is at the center encircled by "whole child" tenets (healthy, safe, engaged, supported and challenged); the white band emphasizes alignment and collaboration needed to improve each child's learning and health; surrounded by that is multiple school components (health education, nutrition services, health services, community

involvement, school environment, etc.); and finally, the community encircles the entire diagram representing the need for community input, resources and collaboration to support its student. The model puts process into action through collaborative development of policies, processes and practices. See: (http://www.ascd.org/programs/learning-and-health/wscc-model.aspx).

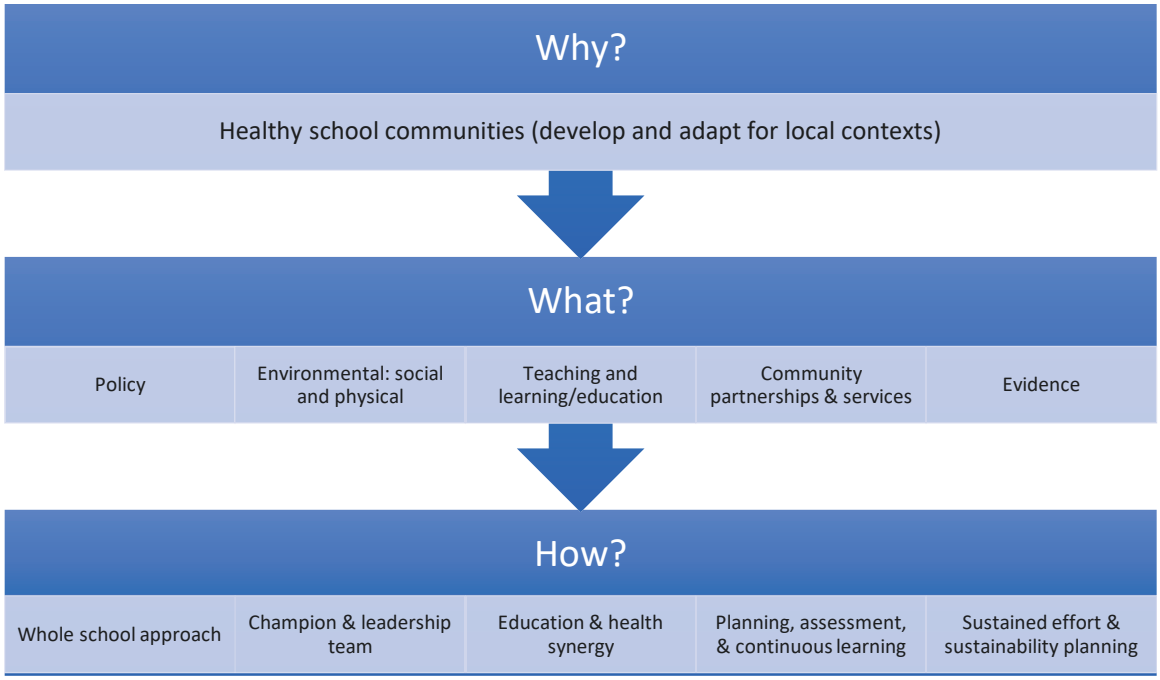
Figure 8. Whole School, Whole Community, Whole Child Model (WSCC)

The health promotion models above are a few of many examples of promising approaches to CSH with potential to contribute to both child health in the short term as well as chronic disease prevention in the long term (Veugelers & Schwartz, 2010). There are many existing models and approaches that vary in terms of description. They also vary in terms of policies, partnerships, teaching styles and community engagement styles.

In Bassett-Gunter et al's *Healthy School Communities Concept Paper* (2012), details on the current state of approaches for healthy school communities in Canada is outlined in terms of moving towards common understandings around education and health. Considering the two nationally endorsed frameworks (CSH and HPS), and how they differ in emphasis, not substance

(p. 21), recommendations have been made to employ a whole school approach and how a healthy school community framework can be carried out by a strong community champion, supported by policy, the social and physical school environment, teaching, and of course, partnerships. Recommendations on how to employ a whole school approach are summarized as follows (pp. 23-25):

Figure 9. Recommendations for a healthy school community framework



In terms of research and evaluation, Bassett-Gunter et al (2012) contend that few sources have examined the full scope of school community approaches, and suggest that future research and evaluation efforts should address what works, for whom, in what contexts, and how (p. 24). One example given is that bringing policy and research perspectives together can help to answer what type of training opportunities are needed for professional development for school staff.

EVALUATING SCHOOL HEALTH PROMOTION

According to Veugelers and Schwartz (2010), evidence-based decision-making in public health, and particularly in population health, interventions such as CSH is still in its early stages and suggest that when examining interventions, the following questions should be considered (p. S7):

1. To what extent is CSH successfully implemented? Are advances made for each of the four essential elements of CSH (see below)?
2. What is the impact of CSH? Has its implementation demonstrated improvements in knowledge, and changes in attitudes and behaviors?
3. What are the improvements in terms of outcomes? Are students eating more healthily, being more active and have they healthier body weights?

Evaluation and assessment is about collecting and providing information on the value of something (Barnes, 2009). It involves collecting information on how to best run a program, finding out how well a program is running and how well it is working, or what the results have been (Barnes, 2009). Evaluations often determine whether or not a program will continue to be funded, or if a program needs improvement in specific areas. More research and evaluation of CSH is needed in terms of public health benefits, but it can be a promising approach to promoting healthy eating and active living if upheld by the following four pillars: 1) teaching and learning; 2) social and physical environments; 3) health school policy; and 4) partnerships and services (Veugelers & Schwartz, 2010; Joint Consortium for School Health, 2016).

There is an absence of literature available on facilitators and barriers of elementary school health instruction, as well as teachers' views on teaching about health (Thackeray et al, 2002), and on the evaluation of health curricula content using participatory knowledge translation of results (Khayyat-Kholghi et al, 2017). Since as early as 1990, several international organizations have proposed solutions to providing better youth-oriented health programs, while at the same time attempting to address individual and social determinants of health (Deschesnes, Martin & Hill, 2003). It has been acknowledged that youth health promotion initiatives take different forms

(HPS and CSPH), however evaluation results are lacking "as to how to operationalize the global nature of these approaches," specifically in the areas of the school environment and school/community links (Deschesnes, Martin & Hill, 2003). Moreover, as stated earlier, schools have diverse student populations located in settings that vary dramatically, requiring the adaptation of health promotion models and approaches to each particular setting. The final section of this chapter returns the focus of this inquiry to the community of Kahnawà:ke, particularly around evaluating Kahnawà:ke's school health curriculum for diabetes prevention within two of its elementary schools.

Indigenous Evaluation of Health Promotion

There is a need for more research on measuring the impacts of health education so that schools and health practitioners can better improve the lives of Aboriginal children's health and wellness (Moselle and Ball, 2013, p. viii). Meaningful data in Indigenous contexts is critical to understanding and addressing health disparities within this country, as well, community-directed training and evaluation of health care services is needed in addressing the social determinants of health and well-being of Indigenous peoples of Canada (Allan & Smylie, 2015). There is also a need for viewing evaluation within Indigenous education contexts as an inter-cultural process as challenges arise for evaluators to understand differences in understandings of two different worldviews (Hopson, 2003). As such, there are an increasing number of participatory evaluation and research approaches being designed that attempt to address issues of culture, power and Indigenous populations making evaluations more equitable (Chino & DuBruyn, 2006; Fisher & Ball, 2002).

According to Mackety (2012), Indigenous communities are using CBPR approaches for research and evaluation conducted in their communities. Such was the case in the evaluation of the KMHC HEP for Diabetes Prevention in Kahnawà:ke. An Indigenous evaluation framework is one that synthesizes Indigenous ways of knowing and Western evaluation practice (Lafrance, 2010). In the case of The American Indian Higher Education Consortium comprised of 34 American Indian tribally controlled colleges and universities in the USA, they undertook a comprehensive effort to develop an Indigenous framework for evaluation. Grounded in Indigenous ways of knowing such as tribal sovereignty, centrality of community and family, Indigenous knowledge creation is critical. Evaluators, they argue, need to attend to the relationships between the program and the community.

Research has shown some evidence of positive impacts resulting from assessing school-based health curriculum in Indigenous communities (Khayyat-Kholgi et al, 2017). Three examples below present positive school-based diabetes prevention interventions among the Ojibway-Cree people of Sandy Lake, Ontario; the Zuni people of New Mexico (Teufel, et al, 1998); and among the Kanien'kehá:ka people of Kahnawà:ke (Khayyat-Kholgi et al, 2017; Cargo et al, 2013). Table 5 outlines data collection findings from the assessment of school-based curriculum, in these cases for diabetes prevention programs, that show promising results for communities to use as evidence for the creation and implementation of future school health promotion programming.

Table 6: Examples of positive impacts from school-based health curriculum assessments

Nation	*School-based diabetes intervention*	*Year/Method of Evaluation*	*Positive Impacts*	*Recommendations*
Kanien'kehá:ka Nation, Kahnawà:ke	Health Education Program for Diabetes Prevention (elementary schools)	1995-1999: Teachers interviewed	Teachers can adopt the role of teaching health education curriculum Teachers can enforce nutrition policy Teachers role model	Strengthen implementations of school health interventions Actively involve teachers in policy development Implementation fidelity should make a distinction between

			healthy lifestyles Teachers encourage healthy lifestyles	curriculum fidelity and role fidelity (or adherence)
Kanien'kehá:ka Nation, Kahnawà:ke		2012: Participatory research approach	Strong agreement of overall importance of a Health Education Program for Diabetes Prevention KSDPP's established presence in community Appreciation of prepared lessons plans for teachers	Increased administrative support Teacher training Parental education Increase cultural teachings Development of comprehensive health program for Kahnawà:ke elementary schools
Ojibway-Cree Nation, Sandy Lake, Ontario	Pilot school-based diabetes prevention program – grades 3-5 (ages 7-14)	2005: Data collection on physiological and behavioral change	Culturally adapted intervention is associated with an increase in knowledge about foods low in fat, overall health knowledge, dietary self-efficacy	Healthy school breakfast snack programs is a viable strategy The cost of the school-based program and burden to teachers was very low
Zuni Nation, New Mexico	Primary Prevention Program – high-school-age-youth	1998: Multiple cross-sectional model assessing body mass index, youth plasma glucose levels, dietary intake, pulse rates	Within 2 years of intervention, students decreased body mass index, decreased consumption of sugared beverages, increased consumption of dietary fiber, improved cardiovascular fitness, increased glucose/insulin ratios	Diabetes prevention programs are essential in Native American communities Programs must be community based and supported

Indigenous evaluation, also referred to as decolonizing evaluation is a more recent approach to research that supports Indigenous research methodologies (Mertens, Cram, & Chilisa, 2013). While many health practitioners and school policy makers are committed to eliminating health disparities amongst Indigenous peoples, Indigenous evaluation methods give voice to the Other in terms of their own accounts of their history and present day needs and priorities (Mertens, Cram, & Chilisa, 2013). A consortium of Kanaka Maoli (Hawaiian) and Maōri evaluators (Kawakami et al, 2007) for example, build on an Indigenous framework that evaluates projects in Indigenous communities asserting that evaluations must: a) be viewed and implemented in the

context of a specific place, time, community and history; b) promote and practice an Indigenous worldview; and c) facilitate collaborations that embrace both cultural and academic practices.

This new generation of researchers is creating pathways for upcoming scholars and evaluators. The involvement of Indigenous people in research and evaluation is an important part of enabling this to happen by fostering a supportive environment for upcoming Indigenous scholars (Mertens, Cram, & Chilisa, 2013, p. 9). Rather than an 'outside' evaluator imposing change from 'above', Indigenous evaluation is a form of evaluation that promises to break the cycle of essentialism (Said, 1979), and other forms of neo-colonialism (Alfred, 1995) inherent in research practices involving Indigenous health issues. Relevant to evaluators is contextualizing evaluations within cultural appropriate frameworks, and meeting the needs of program participants, implementers, and external funding agencies (Kawakami et al, 2007). It has been suggested to incorporate evaluation mechanisms directly into a school health promotion model for Kahnawà:ke, If so, there are many examples to draw from other Indigenous scholars who can help guide this process.

SUMMARY

This chapter presented an overview of the current health status of Indigenous peoples of Canada, school health promotion and health promotion strategies, and the importance of evaluating school health promotion in an Indigenous context. This literature review builds on and contributes to the discourse on school health promotion in an Indigenous setting. CSH and HPS is not a new concept and is becoming an important part of the curriculum in many districts. Beginning in kindergarten and continuing through high school, school health promotion provides an introduction to youth about living and maintaining a healthy mind, body and spirit. I

demonstrated that there are many school health promotion approaches readily and easily available to draw from in terms of school materials, toolkits and resources.

There is much to consider about comprehensive school health in terms of the school environment (safe, clean buildings and school grounds), policy and school administration (rules, regulations, prevention), the prevalence of type 2 diabetes and obesity amongst the younger population, and whether or not cooperation exists between health and education authorities, and political decision makers.

A crucial step to closing the gap in health disparities amongst Indigenous peoples in Canada is about using knowledge in a way that contributes to addressing social determinants of health. Indigenous health education programs are most effective if parents and community are involved, if different levels of policy makers and health educators work together, and if local understandings or Indigenous ways of knowing can be combined with understandings of the world from multiple perspectives (Cajete 1994, 2000).

Finally, considering the reasons for externally imposed strategies upon our communities (Smylie 2004, 2009), in self-determining the future for health education within an Indigenous context, it can be said that many of our education and health systems are locally controlled, that we have knowledgeable people in our communities to evaluate current health programming in our schools, as well as qualified health professionals and educators who can create a health promoting school. Looking towards the future of having a healthy school population for generations to come, as Indigenous peoples we must take into consideration our own local understandings of health and wellness, as well as local mechanisms of knowledge translation (Smylie, 2004, 2009).

CHAPTER 3: METHODOLOGY & METHODS

INTRODUCTION

During the past few decades Indigenous populations have been insistent on research being given appreciation and expression to Indigenous voices, visions and cultural orientations challenging traditional Western ways of conducting research in Indigenous settings (Bartlett et al, 2007), and are calling for decolonizing research methodologies and methods in the theory, research, and practice of health research (Duran & Duran, 2000; Smith, 1999, 2012). "Whether they experience balance or conflict between Western and Aboriginal ways of thinking and knowing is more likely to be revealed by a decolonizing approach to inquiry that does not privilege Western constructs and impose Western concepts of matters of health and illness upon the research participants." (Bartlett et al, 2007, p. 2372). As part of this insistence, a growing amount of Indigenous researchers are contributing to post-colonial discourses as a way of reclaiming and repositioning Indigenous voices, knowledge and analyses for decolonizing methodologies in the theory, research, and practice of research and health research (Berry, 2012; Browne, Smye, & Varcoe, 2005; Battiste, 2000; Smylie et al, 2004).

This qualitative study is guided by a CBPR approach within an Indigenous research framework. I use the case study introduced in chapter one as my starting point for this inquiry with the intent of co-creating new knowledge with my community as part of an Indigenous knowledge-to-action process. I take into consideration that participatory research is a component of decolonizing research that allows me to center this study around an Indigenous epistemology for education and health research. My interpretation of 'sharing what we know about a good life' is creating and choosing an 'ethical space' to work where I reflexively tell my story throughout this

dissertation and share my perspectives in accordance with whom I am as a Kanien'kehá:ka woman. Part of an Indigenous research methodology includes my responsibility to carry out this study in a respectful way, that involves reciprocity and is relevant for my community. At the same time, I have the responsibility of satisfying my academic institutional obligations. One example that resonates with me during this current research journey is the challenge of balancing Western theoretical frameworks within an Indigenous theoretical framework. This is reconciled through borrowing relevant methods from Western theory, and adapting them to fit this study.

This chapter discusses a decolonizing Indigenous research methodology used as a guiding theoretical framework that is cognizant of Haudenosaunee knowledge and understandings that poses the researcher as an 'insider' intent on sharing, or translating knowledge from this research to the community of Kahnawà:ke. An Indigenous research methodology is about self-determination that builds on understandings of why Indigenous researchers choose to engage in decolonizing research practices, and how we contribute to advancement of Indigenous research methodologies within scholarship. I integrate my cultural understandings of the principles of Kaswéntha as a metaphor for collaborative research where I navigate the use of knowledge translation and Indigenous research methodologies as applied to health research and evaluation, and also to co-create new knowledge. I provide an interpretation of CIHRs knowledge translation (KT) strategies and argue that when Indigenous research methodologies and Indigenous KT are aligned with CBPR to meet the needs of a particular community, it builds capacity within the community and delivers meaningful research results to users of the knowledge. The principles of Kaswéntha allows me to work in a safe space where I reclaim my traditional knowledge through research, and at the same time borrow and combine Western and Indigenous theories by giving

voice through research that is participatory in nature, which promotes empowerment, inclusivity, and respect for all involved in research processes (Chilisa, 2012).

AN INDIGENOUS RESEARCH FRAMEWORK

Decolonization is a process of centering the concerns and worldviews of colonized people so that they understand themselves through their own assumptions and perspectives (Chilisa, 2012). Decolonizing research *with* or *within* Indigenous communities places Indigenous voices and epistemologies in the center of the research process (Smith, 1999) and is about looking peoples' epistemologies or how they think (Wilson, 2008). Supported by Indigenous research methods, a decolonizing theoretical framework supports positive change, enables the revitalization of language and cultural practices, and frees the minds of Indigenous scholars from oppressive conditions that continue to silence our voice. A big part of it is looking at how we are able to maintain a strong sense of our identity and culture while at the same time participating in academia. As Shawn Wilson (2001, p. 175) explains, many Indigenous researchers are at the point of moving beyond an "Indigenous perspective in research" to "researching from an Indigenous paradigm". Part of our role as Indigenous researchers is to be actively engaged in this process so as to pave a positive path for change for future scholars who choose to work in what Willie Ermine and Eber Hampton (2007) call 'ethical space'.

Decolonizing research has been defined in many ways yet is understood that racism and colonization are intertwined (Reading, 2013); that together they have greatly impacted the health of Indigenous peoples in Canada (Allan & Smylie, 2015); that research mechanisms involving Indigenous populations has been largely one-sided (Smith, 1999; 2012); and that information about the health of Indigenous people cannot be understood outside the context of colonial

policies and practices such as the Indian Act of 1876, the residential school system, the Sixties Scoop, forced relocation of Indigenous peoples, and historical and current child welfare processes (Allan & Smylie, 2015). According to Linda Tuhiwai Smith (1999; 2012), a Maōri and educator from Aotearoa/New Zealand, colonialism is far from being a "finished business" and that because we have different epistemological traditions which form our own worldviews, we as Indigenous researchers have the responsibility to make a positive difference for the researched. Given that Indigenous academics are researching from an Indigenous paradigm, there are multiple ways of decolonizing research and multiple ways that research has been conceived and actioned, depending, I believe, on one's geographical location and their connection to the land and their identity. While Indigenous researchers from different parts of the globe work from different perspectives, there are underlying, unifying principles that makes Indigenous research frameworks and methodologies distinct from a Western research framework.

In Smith's books (1999; 2012), *Decolonizing Methodologies: Research and Indigenous Peoples'*, Smith outlines the cultural evolution of the Western concept of research, describes its devastating effects on Indigenous peoples', and argues for a new Indigenous research agenda that inspires and challenges Indigenous researchers to 'decolonize' our own minds by privileging Indigenous thought, philosophies, inherent knowledge, and ways of knowing. For Bagele Chilisa (2012; p. 173-178), an expert on Indigenous research methodologies and evaluation from Botswana in South Africa, postcolonial research paradigms encourage the researcher to critically reflect on self, know our own contexts, and be secure in our own identities, otherwise coming to know another culture will be problematic. This, however, does not mean to reject Western research methodologies and methods, rather, Indigenous researchers are finding ways to apply their own 'tribal' epistemologies into their research (Kovach, 2009) by deciding the

research agenda within their respective communities (Wilson, 2008), and at the same time borrowing and combining valuable Western research methods that fit well within Indigenous epistemologies and pedagogies.

As an Indigenous researcher, I take responsibility for making a positive difference in the way I conduct research in a number of ways. Firstly, it is important for me to ensure that I carefully choose research endeavors that are meaningful and applicable by linking research objectives and methodologies to community needs and contexts (Weber-Pillwax, 2001). In doing so, like Shawn Wilson (2008) and other Indigenous researchers (Chilisa, 2012; Kovach, 2009; Ermine, 2007) I situate my research within a paradigm that is cognizant of appropriate codes of conduct that honors local understandings of knowledge and worldviews -- in this sense, the Kanien'kehá:ka of the Haudenosaunee -- such as a concern for future generations, building consensus, and respect for building collaborative relationships as taught through the philosophy of Kaswéntha. I support Shawn Wilson's (2008) claim that research is viewed as a ceremony for healing, and is based on accountability to relationships, respectful representation, reciprocal appropriation and respect for local rights and obligations to community.

Colonization has been recognized internationally as a key determinant of health for Indigenous peoples (Reading & Wein, 2009). Indigenous advocates of decolonizing research in a health context begins with an explanation of the role that racism and discrimination plays in the health and well-being of Indigenous peoples, specifically in Canada (Allan & Smylie, 2015). For example, Cindy Blackstock (2016a) recently pointed out that:

> "In January 2016, the Canadian Human Rights Tribunal ruled that Canada's inequitable provision of First Nations child and Family services to 163,000 children on reserves and in the Yukon and failure to properly implement Jordan's Principle (www.jordansprinciple.ca) is racially discriminatory and

> contributes to record removals of First Nations children from their families. The ruling notes that Canada had been aware of the deficiencies in its programs for many years, had solutions to fix the problems and ignored them."
>
> (First Nations: Reconciliation https://www.canadiandifference.ca/archives/FN_Reconciliation_2.pdf; also see Blackstock, 2016b)

At the individual, family and community level, Indigenous peoples have been managing racism and its effects on their health for hundreds of years (Allan & Smylie, 2015), hence, the study of resilience of the Other is a growing area of interest that also ought to be considered as decolonizing research (Chilisa, 2012). For example, resilience recognizes that many individuals and communities do well despite severe hardships and deprivation. As a result, clinicians and policy-makers are developing resilience literature that is shifting the paradigm from risk to resilience (Kirmayer et al, 2012). As well, Chandler & Lalonde (2009) found that cultural continuity, or "being who we are" is foundational to health and viewed as a 'hedge', or safeguard against suicide amongst Canada's West Coast Indigenous youth. Cultural safety, an approach developed in Aotearoa/New Zealand by a Maōri nurse leader in response to colonizing processes affecting patients has become a vehicle for translating post-colonial concerns into praxis, pushing beyond culturalist approaches to policy (Smye & Browne, 2002). According to Tait (2008), central differences between Indigenous and Western ideas of health and wellbeing "rests on different concepts of illness and disease" (p. 45), for example, "Western thinking tends to define mental health problems as individual pathologies, e.g. brain disorders…mental health disorders and mental health are not viewed as connected to broader issues such as spirituality, culture, and social conditions." (Tait, 2008, pp. 45-46).

Indigenous community research and evaluation of health promotion plays an important role in informing the planning and operation of services for the improvement of both the individual and

the collective (Bowling, 2002). Over the past few decades, the use of CBPR and participatory evaluation approaches in Indigenous settings has increased substantially and is recommended by numerous Indigenous entities throughout the health and education fields on Turtle Island, and responds to the challenges that Indigenous communities face in terms of being excluded from research and evaluation processes (Mackety, 2012). For instance, in a study which assessed the effectiveness of a governance initiative that addressed the need for after school care for youth with the Cree Nation of Wemindji, Quebec, Jordan et al (2009) found that despite the effects of colonial research, participatory evaluation, if properly aligned to meet the needs of a particular community, can help build capacity through the training of local researchers for future community planning. Applying a non-positivist approach in the context of participatory evaluation gives voice to participants where equal partners meet, and creates new knowledge on how to address issues of exploitation and oppression (Jordan et al., 2009).

The Maōri people of Aotearoa have developed advanced knowledge about Indigenous program evaluation. Helen Moewaka Barnes (2009) developed a resource called, *The evaluation of hikoi: A Maōri Overview of Programme Evaluation* aimed at issues surrounding public health program evaluation by and for Maōri, which highlights areas that evaluators may need to consider. There are several different models and frameworks that can be used to guide researchers including considerations of ownership and power, ultimately with the goal of creating positive and transformative difference. Maōri evaluation is described as being culturally responsible, culturally appropriate, culturally sensitive, Maōri-relevant, Maōri-focused, and is usually placed within the context of value and power. Maōri evaluation is controlled and owned by Maōri, meets Maōri needs and is carried out within a Maōri worldview. Key themes to Maōri evaluation

are trust, long-term reciprocal relationships, participation, power-sharing arrangements, and the need for flexibility and reflection.

In a continuing effort to move beyond colonialism, many promising and emerging responses are occurring within health care systems including the creation of Indigenous directed health and health related services, community-based and health-impacting services, interventions at the level of mainstream health institutions, cultural safety training, and efforts to increase the number of Indigenous health care providers (Allan & Smylie, 2015). If we are to contribute to transforming the conversation about race and health in Canada and move closer towards truth and reconciliation, many critical steps need to continue to gain momentum such as improving health data collection that is meaningful to Indigenous peoples in addressing health disparities, as well as advancing knowledge of racism on Indigenous health (Allan & Smylie, 2015; Paradis, Harris & Anderson, 2008). One solution is through a community-based participatory action approach to the design and implementation of research and evaluation projects.

PHILOSOPHICAL FOUNDATIONS AS METHODOLOGY

Indigenous peoples have long used symbolism and metaphors as an aspect of creating thinking. Non-Indigenous scholars also use metaphors and models that highlight aspects that may be relevant to individuals or communities in different settings or times (Kirmayer et al, 2009). For example, Kirmayer and colleagues (2012) use the metaphor of resilience to show that many Indigenous individuals and communities do well despite enduring severe hardships. The metaphor of resilience refers to the ability of a material to return to its original state after being stressed or deformed. As applied to Indigenous health research, a focus on resilience shifts attention from vulnerability and pathology towards the analysis of resources, strengths and

positive outcomes. Gregory Cajete (2000) has taught that metaphors are part of an Indigenous natural philosophy and that the use of images opens us up to metaphoric thinking. An example he uses is the metaphor of a top of a mountain which is a place of perspective about where one has been, where one is, and where one may go (Cajete, 2000; p. 45). The concept of Two-Eyed Seeing (Bartlett, Marshall & Marshall, 2007) points out that diverse perspectives always have roots that emerge from very different places, and offers a framework from which two different types of knowing can be brought together, and that they are both of equal importance.

Kaswéntha: A Metaphor for Collaborative Research

What follows below is an explanation and discussion of Kaswéntha. I choose this metaphor for use in the context of my research as a philosophical foundation as methodology of collaborative research and co-creating knowledge. In doing so, I explain Kaswéntha as a theory of finding common ground between my Western based research training and understandings of collaborative research as mentored by KSDPP.

As introduced in chapter one and further brought into context of this study in chapter two, Kaswéntha is one of the first treaties agreed upon by Haudenosaunee Peoples and the settlers who came to live with us on Turtle Island in the 1600s under the Kaianere'kówa, or The Great Law of Peace (Wallace, 1946). Threaded with white and purple wampum beads crafted from quahog shells from the east coast, it represents the coming together of two cultural beliefs. The symbolic reference to the two parallel lines of purple beads is meant for two peoples to live side by side in peace from that day forward. The distance between the two rows (three strands of white beads) symbolizes not land ownership, but a relational agreement for co-existence. Given the desire for two peoples to coincide under the protection of Kaianere'kówa, this negotiation

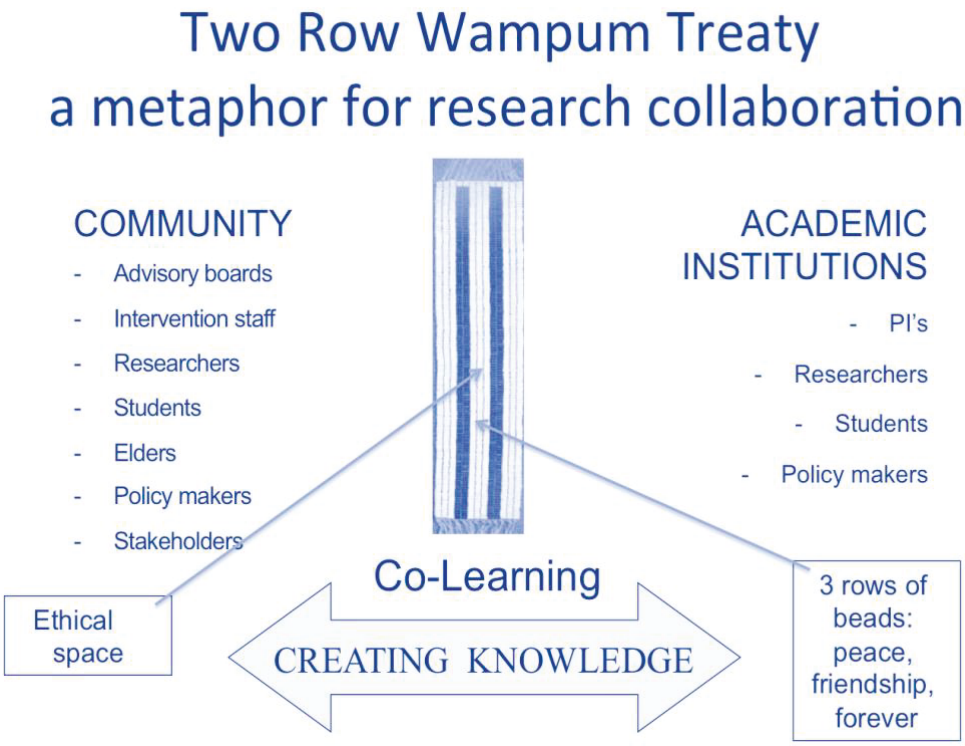
and process contained within the three strands of white beads is where two cultures can meet to work towards collaborative research.

According to David Newhouse (2003, 2008), a Seneca of the Haudenosaunee, Indigenous theory derived from Kaswéntha is future oriented in considering the nature of the relationship between Indigenous and non-Indigenous peoples. Further, as Newhouse explains:

> "As theory, [gus-wen-tah] sets out the principles for ethical relationships between peoples (peace and friendship). In this sense, then, it is a theory of international relationships, setting out the basis of relationships between peoples. It is also an ethical theory when it talks of respect, honesty and kindness as the principles for relationships….We ought to remember that the space between the two rows is a place of conversation, discussion, debate…."
>
> (David Newhouse in SSHRC, 2003, p. 18)

Drawing on the work of David Newhouse who employs Kaswéntha as a metaphor for envisioning ethical space for dialogue between two worldviews, and the advancements made by KSDPP and its Research Code of Ethics, what is illustrated below is a visual representation of academic institutions working together with community, on common ground, to co-create new knowledge for the betterment of Indigenous communities, and to work towards 'sharing what we know about a good life.' (see figure 5).

Figure 10. Kaswéntha/Two Row Wampum Treaty Wampum Belt as metaphor



Indigenous researchers have a dual responsibility of satisfying both the academy and their communities as the 'field' is also their home (Phillips, 2010; Ives et al, 2007). My task in this study is to navigate two sorts of spaces while satisfying both the requirements of the academic institution that I have become a part of, and producing a concrete outcome for my community that can be used in consideration of building a culture-based health promotion curriculum for elementary students. One of the purple rows then, represents the academic institution, my supervisor and supervisory committee, with its research ethics and institutional review board, while the other purple row of beads represents the KSDPP Code of Research Ethics, my cultural teachings, and community members who contributed to this study. The three strands of white in the center, represents the space where we come together to design the beginnings of a culture-based school health promotion model.

Community members who participated in this study, have understood and respected my role in satisfying my obligations as a graduate student, while the academic institution approved and allowed this study to be conducted on my own terms. It is my hope that the results of this study will not only add to the discourse on a decolonizing theoretical framework, CBPR and knowledge translation, but will also produce outcomes that could benefit my community in terms of expanding on the KMHC HEP for Diabetes Prevention.

A COMMUNITY-BASED PARTICIPATORY APPROACH

Participatory research is defined as the "systematic inquiry, with the collaboration of those affected by the issue being studied, for the purposes of education taking action or affecting change" (Green, et al. 1995). More recently defined, PR is the:

> "co-construction of research through partnerships between researchers and people affected by and/or responsible for action on the issues under study (e.g., patients, community members, health professionals, representatives of community-based organizations) and/or decision makers who apply research findings (e.g., health managers, policymakers, community leaders)."
>
> (Jagosh et al, 2012)

The increasing use of PR to address Indigenous health issues reflects its potential for bridging gaps between research and practice enabling people to gain control over health determinants (Cargo & Mercer, 2008). Because of similarly underlying goals of achieving research equality, collaboration, and community control, other approaches acceptable to Indigenous research have been labelled as participatory action research, community-based research, participatory evaluation, collaborative inquiry, and participatory research (Drawson, Toombs & Musquash, 2017).

According to KSDPP's Code of Research Ethics, CBPR "equitably involves the community and researchers in all aspects of the research process where partners co-create knowledge using distinct strengths and shared obligations to enhance understandings of an issue by integrating the knowledge generated with action to improve the health and wellbeing of our communities, and ultimately to improve overall health and well-being" (KSDPP, 2007, p. 22). It also involves the dissemination, or transfer of knowledge back to the community as well as within the public domain (KSDPP, 2007; p. 23). CBPR is a preferred approach for Indigenous communities as it provides local researchers with opportunities to develop effective interventions that are effective, acceptable, culturally competent and relevant (Horn et al, 2008).

Participatory research began as a movement for social justice that developed into improving social and economic conditions to effect change, and to reduce the distrust of people who are researched (Macaulay et al, 1999; Green et al, 1995; Brown & Tandon, 1983). As opposed to a methodology, PR is a broad approach that invites quantitative, qualitative or mixed methods as a way to collect data (Salsberg, Macaulay, & Macaulay, 2015; Parry, Salsberg, & Macaulay, 2009), as long as a core set of principles are met. It places decision-making into the hands of the researched to better bridge the gap between academic institutions and communities, thus finding common ground based upon principles of negotiating balance between developing valid and generalizable knowledge which benefits the community by incorporating local knowledge and expertise of the community being researched (Macaulay et al, 1999).

This study is guided by a CBPR approach that recognizes community as a unity of identity, in this case the Kanien'kehá:ka of Kahnawà:ke, addresses health promotion from a positive standpoint, and disseminates findings and knowledge to community stakeholders. Indigenous

research has historically been completed *on*, rather than *with* Indigenous peoples (Drawson, Toombs & Musquash, 2017). Nicknamed 'helicopter research' where "Outside research teams swoop down from the skies, swarm into town, ask nosy questions that are none of their business and then disappear, never to be heard from again (Montour et al, 1988, p. 201)", research methods, up until the late 1980s and early 1990s, did not incorporate Indigenous knowledge or community cultural values. Portrayals of Indigenous communities have been problem focused and deficit based, Indigenous peoples have been treated as research subjects, rather than consenting participants, and data has often been unusable by communities (Drawson, Toombs & Musquash, 2017). While there is a positive shift occurring in Indigenous communities, understandably, many Indigenous community members are still wary and mistrustful of research in general, whether data is collected from 'insiders', or 'outsiders'. Within Canada, Indigenous communities have clearly articulated a desire for research to be led by Indigenous peoples using a community-based participatory approach (Macaulay et al, 1999; Smylie et al , 2009). CBPR is now regarded as an acceptable approach to Indigenous research as it encompasses collaborative research processes that prioritize the needs of the community (Drawson, Toombs & Musquash, 2017).

Based on a recent systematic review of Indigenous research methods, Drawson, Toombs & Musquash (2017, p. 6-7) report the following commonly referenced principles that would be applicable to an Indigenous CBPR approach:

a. Recognizes community as a unity of identity.
b. Facilitates collaborative partnerships in all phases of the research.
c. Integrates knowledge and action for mutual benefits of all partners.
d. Promotes a co-learning and empowering process that attends to all social inequalities.
e. Involves a cyclical and iterative process.
f. Addresses health from both positive and ecological perspectives.

g. Disseminates findings and knowledge gained to all partners.

HEALTHY RESEARCH GUIDELINES

Since the 1996 Report of the Royal Commission on Aboriginal Peoples' and the subsequent TRC's Calls to Action in 2015, fundamental to Indigenous research is Indigenous peoples' right to participate in establishing ethical guidelines for research (Brant-Castellano, 2004). Since then, many initiatives have been taken at local and regional levels to develop ethical guidelines applicable to local contexts. Some examples include: KSDPP's Code of Research Ethics (KSDPP, 2007) that guides collaboration between community and academic institutions; the Mi'kmaw Ethics Watch developed by the Grand Council of the Mi'kmaq which sets out principles and guidelines for researchers conducting with and/or among Mi'kmaq people; and the University of Victoria's ethics review process that accommodates Indigenous ethical Standards (Brant-Castellano, 2004). CIHR supports and acknowledges KSDPP's efforts in creating its Code of Research Ethics. According to Dr. Ann Macaulay, "we [KSDPP] became leaders in developing a code of research ethics that combined science with cultural relevance and the respect of the community (CIHR, 2012).

Codes of ethics for research are a collection of aspirations, regulations, and or guidelines that represent values of the group or profession to which it applies (Pritchard, 1998). What has emerged over the past few decades out of the need to further decolonize research are positive and promising practices involving the establishment of ethical guidelines for research involving Indigenous peoples. The rationale for establishing such guidelines arose out of a general agreement that Indigenous communities are distinct with common interests in need of protection in the area of genetic research (Weijer, 1999). Where ethical codes once concerned individuals as

passive subjects of research, active community engagement has since been increasingly recognized (Macaulay et al, 1999). For example, many countries including the Canada, the United States, Australia and Aotearoa/New Zealand now have ethical codes of conduct in place for conducting research with Indigenous peoples in participatory research terms, and universities, Indigenous organizations and communities have developed their own ethical guidelines (Macaulay et al, 1999). A PR approach to health research and evaluation reduces suspicion and fear, increases awareness and commitment, allows for differing perspectives, integrates the knowledge and experiences of diverse stakeholders, increases the likelihood that evaluation findings will be used, and acknowledges the unique situations of communities (Mackety, 2012).

Past research practices having negative effects on Indigenous populations are no longer acceptable. Within Canada for example, the Tri-Council funding agencies (CIHR, NSERC, and SSHRC) now provide ethical guidelines designed to promote best practices within Indigenous research (Drawson, Toombs & Musquash, 2017). Other policies such as the First Nations Information Governance's Centre's (FNIGC) OCAP® (Ownership, Control, Access, and Possession) principles, and the Tri-Council Policy Statement 2nd Edition (Chapter 9) are an expression of self-determination in research involving Indigenous peoples. These protocols ensure that a balance of power and the sharing of leadership is maintained, and that decision making exists from the conception of a research project to dissemination. FNIGC now offers an online course on the fundamentals of OCAP®, offering information about Indigenous peoples of Canada while committing to improving the health and well-being 634 Indigenous communities, including the recently released National Report of The First Nations Regional Health Survey, volume 2 of phase 3 in 2018.

CIHR Knowledge Translation

Knowledge Translation (KT) is the study of how knowledge is gathered and shaped by health care providers, policy makers, and populations, known as knowledge users (Smylie et al, 2009; CIHR, 2004). Used by international public health and medical research institutes, KT is emphasized as an additional key link between academic health sciences research and improved health outcomes (Smylie et al, 2009; Backer, 1991; CIHR, 2004; Davis et al, 2003). There are several different terms used by CIHR to describe how research gets translated into action such as knowledge transfer, knowledge-to-action, knowledge exchange, and dissemination, to name a few (Graham et al, 2006). Similar to diverse concepts related to KT, there are different *forms* of KT. First, KT is divided into two broad categories: *end of grant* KT and *integrated* KT. Each category is about knowledge creation and action. Jonathan Salsberg further explains:

> End of grant KT (or just "KT") can encompass all the steps of engagement with stakeholders to assess their knowledge needs, tailor the knowledge to their setting, train them in new techniques, monitor and evaluate these knowledge interventions, etc. In other words, all the steps captured in CIHR's Knowledge-To-Action cycle. But it's all about knowledge (evidence) that has been already created, and not by the end-users. Integrated KT is different. It allows the end-users to identify what gaps in knowledge they have and then create the new knowledge (evidence) themselves therefore building the KT right into the knowledge creation (research) process, because the knowledge users are now also the knowledge creators (researchers), i.e., participatory research!
>
> (Personal correspondence, January 31, 2014)

Knowledge users are the people who are likely to 'use' the knowledge generated through research such as practitioners, policy-makers, educators, decision-makers, health care administrators, community leaders, patient groups, a private sector organization, stakeholders, or even media outlets (CIHR, 2008). This study's knowledge users are stakeholders affected by,

interested in, and have invested their time in the planning and implementation of school health promotion within the community of Kahnawà:ke. Stakeholders of this study include: KMHC staff, KEC staff, KSDPP staff and CAB member, the KSDPP Schools Wellness Committee, teachers and students.

CIHR knowledge translation poses to address the gap of translating knowledge from research findings to practical use of stakeholders and end users in health as both a process and a strategy. In other words, to improve outcomes for consumers and patients within health sciences research, or more generally, the need to accelerate the capture of benefits of research for improving health, health practice and health systems (Graham et al., 2006). This need is based on the understanding that it has been shown to take an average 17 years for just 14% of all basic research to get to the point where it can benefit the health of an individual or population (Balas, & Boren, 2000).

CIHR Indigenous Knowledge Translation

Also known as Aboriginal KT, Indigenous KT is now applied in Indigenous community contexts, with a focus on Indigenous community members as the users of health knowledge (Smylie et al, 2009). Indigenous KT in an Indigenous health research context, has been described as 'sharing what we know about living a good life' and is an ethical issue and pursuit to create positive change (Ermine, 2006; Kaplan-Myrth & Smylie, 2006). For Marlene Brant-Castellano (2000), "The ultimate test of the validity of knowledge is whether it enhances the capacity of people to live well." While many Indigenous peoples in Canada still live in crisis, 'living a good life' means living without conflict, knowing the importance of family, community, nationhood, and having the basic needs of adequate housing, safe drinking water, as well as adequate education and employment. What sets Indigenous KT apart from a Western concept of

knowledge translation is the focus on wellness, not only illness, and encourages Indigenous researchers and students to share their perspectives on what is making our communities well by showcasing our resiliency.

Mainstream KT, according to Smylie et al (2004; 2009), fails to take into consideration local understandings of health and illness, and local mechanisms of knowledge sharing, and continues to fall short in Indigenous contexts when it comes to knowledge conceptualizations, sharing systems, or protocols, thus the need to move towards theory and practice that embraces diverse understandings of knowledge and that respects and builds upon pre-existing [Indigenous] knowledge systems (Smylie et al., 2014). Through critical reflection, research scientists can achieve better outcomes for Indigenous communities and provide rich learning for mainstream scholarship and practice only when they can answer some of the following questions: What do you know about the Indigenous communities in the geographic area where you live and work? From what sources is this knowledge drawn? Can you identify knowledge gaps and strategies to address these gaps in your personal understanding and knowledge? (Smylie et al, 2014, p. 5). What is distinct about Indigenous KT is that when research is conducted *by* Indigenous people, there is an underlying motivation to improve current circumstances, rather than a sole desire to advance one's career, or publish an article in a journal. Participation of community plays a significant front-end role in deciding what is appropriate in each setting and circumstance.

KT activities are effective when: understandings of health and well-being are present, they are reflective of local geography, and are carried out through a participatory, communal and experiential approach (Estey, Smylie, & Macaulay, 2009). It has been reported that applying a decolonizing theoretical framework using Indigenous KT generates specific information about

distinct decision making processes, dissemination process, local health services and programs, community structures, and cultural identities and traditions in different Indigenous community contexts (Smylie, Kaplan-Myrth, & McShane, 2009). Importantly, Smylie et al (2009) also found that prior to designing research and interventions in Indigenous contexts, researchers should first align themselves with community environmental contexts and understandings of social norms within each context (Smylie et al, 2009). I add here that Indigenous KT is relational (Wilson, 2008) requiring extra time to build relationships with local knowledge users and to include their input throughout the research process.

At an Indigenous KT Summit held in Regina, Saskatchewan in 2006 (Kaplan-Myrth & Smylie, 2006), primary health care providers, policy makers and researchers sat with community members, including Elders, to discuss KT within their own contexts. The summit provided opportunities to discuss the theory, politics and practice of KT, to link the concept of Indigenous KT to literacy, culture and health, and to address concerns of external organizations and researchers wishing to enter communities with a research proposal. In reviewing the summit report, two important implications for Indigenous KT that stood out for me is Willie Ermine's mention about the importance of dialogue and how we understand each other cross-culturally; how Indigenous KT is about inclusion, responsibility for the collective, and our [Indigenous peoples] responsibility of transmitting, communicating and protecting the knowledge handed down from one generation to the next. Another participant of the summit importantly states, "KT might be as simple as the process of teachers, parents, school committee, grandparents and Elders sitting around the kitchen table" (Kaplan-Myrth, & Smylie, 2006). Estey, Kmetic, & Reading (2010) advocate the need for further development of Indigenous KT. Mainstream KT they say, may not be able to improve Indigenous health because it: is based solely on the

Western Scientific model; separates issues of culture from the transfer, dissemination, and integration of knowledge into practice; and does not include Indigenous understandings of health and well-being. Indigenous KT, if further developed and supported, is a way to find a common ground with Western science by incorporating local Indigenous knowledge and ways of being. The figure below represents the intersection between PR, Integrated KT and Indigenous KT.

Figure 11. Relationship between PR and Integrated KT (adapted from Salsberg & Macaulay, 2008).

The success of KT depends on the amount of community involvement throughout the entire research and dissemination process. In this context, community is part of the ethical space. Integrating community knowledge users, regardless of age, political leadership, or organizational affiliation is translated by including everyone's contributions and evaluating the role everyone plays. Within this ethical space, KSDPP staff, researchers, Community Advisory Board Members and individuals who were part of the Schools Wellness Committee, each helped to co-create knowledge by contributing their time to attend meetings, participating in interviews, and providing their perspectives in the planning and implementation of school health promotion within Kahnawà:ke.

Working in Ethical Space

> "Ethical space is acknowledging two different systems and that space between them. This is the space where everybody works together to see how knowledge works. No party becomes dominant and it is a matter of equal partnerships."
>
> (Kaplan-Myrth & Smylie, 2006, p. 34)

"Indigenous KT includes an ethical space of engagement that includes a reconciliation of worldviews" (Ermine, 2007). Willie Ermine and Eber Hampton's (2000) concept of ethical space has taught us about an abstract *space* where people from different cultures and worldviews can respectfully and effectively engage and work in an ethical manner for the benefit of those being researched. At this space of meeting, dialogue, discussion, and potential misunderstandings from the intersection of "two entities with different backgrounds, worldviews and knowledge systems" can come together (Hanson & Smylie, 2006, p. 34). Ethical standards informed by the concept of cultural safety is one example of Indigenous peoples operating in ethical space in reconstituting how provincial, territory, and federal ministries and policy makers design, fund and support health services to Indigenous peoples (Tait, 2008).

Kaplan-Myrth and Smylie (2006) suggest that once Indigenous communities reclaim their health knowledge base and have made significant progress in recapturing control of their lives and supporting institutions, then knowledge transfer can begin in earnest because of its leveling effects (p. 42). Many Indigenous and non-Indigenous scholars, have been considering the possibilities and value of bridging Western and Indigenous knowledge for the betterment of Indigenous peoples' health and wellness (Brant-Castellano, 2004; Ermine, Sinclair, & Browne, 2005; Kovach, 2012; Macaulay et al, 1999; Reading, 2009; Smith, 2012; Smylie et al, 2009; Wilson, 2008). Transforming the ethical space from abstract to concrete practice for Indigenous scholars committed to advancing the discussion of Indigenous KT, begins with centering our inherent ideologies around how we conduct ourselves and how we carry out our research endeavors. For example, as explained in chapter one (see page 7), common understanding central to Haudenosaunee society is ensuring that future generations benefit from decisions that are made today. This responsibility can be applied in an Indigenous research context.

In the words of Willie Ermine and Eber Hampton, as we work to unfold the next phases of Medicare, for example, the challenge is fundamentally ethical: "We must speak, listen, choose and act in ways that work for the health of ourselves, our communities, and our society…it may be useful to think not always of arena, but also of ethical space that calls us in to words of the elder, "to put our minds together and see what kind of world we shall make for our children" (Ermine & Hampton, 2007).

CENTERING INDIGENOUS RESEARCH METHODOLOGIES AROUND HEALTH PROMOTION

Because Indigenous communities have long experienced exploitation by researchers, research within Indigenous communities increasingly requires participatory and decolonizing research

processes (Simonds & Christopher, 2013). According to Simonds & Christopher (2013), there is a gap in published material for this process requiring continued exploration for blending or adapting Western methods with Indigenous methods and theories (Simonds & Christopher, 2013). In this continuous effort, Indigenous researchers, such as myself, look for ways to adapt Western methods and theories into an Indigenous research paradigm. Research aims to contribute to a scientific body of knowledge and is viewed as the "systematic and rigorous process of enquiry which aims to describe phenomena" (Bowling, 2002). Methodology generally refers to the theory of method, or the approach or technique being taken (Smith, 2012, p. ix). It is a way of dealing with something, or a problem, and includes a system of methods in a particular area of study or discipline. The way we see the world through our own eyes, or our perceptions of it influences this process of enquiry. The term paradigm or philosophical framework (Chilisa, 2012; Kuhn, 1962) is used to represent a particular way of thinking and seeing the world that is shared by a community of scholars, and also one that is used to represent worldviews, values and approaches (Chilisa, 2012, p. 20-21). Similar to an explanation from Shawn Wilson (2008), Chilisa further explains:

> "A research paradigm is a way of describing a worldview that is informed by philosophical assumptions about the nature of social reality (ontology), ways of knowing (epistemology), and ethics and value systems (axiology). A paradigm also has theoretical assumptions about the research process and the appropriate approach to systematic inquiry (methodology)."

For Wilson, "beliefs include the way that we view reality (ontology), how we think about or know this reality (epistemology), our ethics and morals (axiology) and how we go about gaining more knowledge about reality (methodology)" (Wilson, 2008; p. 7). Because an Indigenous researcher's reality is often different from Western scientific thinking, so may our data collection

tools (methodology), such as including community voice in the research decision making process and bringing traditional protocols and practices into our work.

Paradigms are significant for research because they guide action, and provide an interpretive framework (Russel, 2006; Denzin & Lincoln, 2000). This interpretive framework consists of a set of assumptions on which the research questions are based, and for the researcher, these assumptions allow fundamental decisions to be made (Bowling, 2002). From the researcher's perspective epistemology asks, "How do I know the world?" whereas ontology questions, "What can be known about the reality of the nature of the human being in the world?" Ethics (or axiology) asks, "How will I be a moral person in the world?" And finally, "How can I go about finding out what I believe can be known (methodology)?" What techniques (methods) do I choose to proceed with my research? (Russel, 2006).

METHODS

The design of this study involves the use of qualitative inquiry through individual interviews, PhotoVoice, and Talking Circles with community stakeholders or knowledge users of school health promotion. Qualitative research is a method of naturalistic inquiry that often employs a non-positivist approach to research (Guba & Lincoln, 2005) offering space for Indigenous ways of researching (Kovach, 2009). Qualitative researchers use qualitative research to gather in-depth understandings of human behavior, which fits well with an Indigenous qualitative inquiry because Indigenous research methodologies aim to reframe, reclaim, and rename the research endeavor (Bearskin-Bourque, 2014). Indigenous researchers are finding ways to apply their own 'tribal' epistemology into their research (Kovach, 2009). Kovach and others question why

Indigenous methodologies are still missing from the 'buffet table of qualitative methodologies'. Vine Deloria, Jr. has the same question:

> "Strangely, there has been very little attention paid to Indian methodologies for gathering data, and, consequently the movement is primarily an ad hoc, personal preference way of gathering new ideas and attempting to weld them to existing bodies of knowledge."
>
> (Vine Deloria, Jr. 1999)

Moreover, participatory research and Indigenous research frameworks share common language, the language of community benefit as a shared goal (Kovach, 2009). What is distinctive about Indigenous qualitative inquiry is that 'tribal' epistemologies are at the center (Kovach, 2009).

PhotoVoice

A PhotoVoice project was conducted with a combined grade 5/6 class at each of two elementary schools in Kahnawà:ke (Karonhianónhnha Tsi ionterihwaiensthákwa and Kateri School). Developed in 1992 by Caroline Wang and Mary Ann Burris, PhotoVoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique (Wang & Burris, 1997). It is a qualitative PR data collection process that promotes a sense of ownership over the data, which is important in research with Indigenous peoples and particularly CBPR (Castleden et al, 2008). PhotoVoice has three main goals:

1. To enable people to record and reflect their community's strengths and concerns;
2. To promote critical dialogue and knowledge about important community issues through large and small group discussion of photographs;
3. To reach policymakers.

(Wang & Burris, 1997, p. 370)

PhotoVoice was developed from theoretical literature on education for critical consciousness, feminist theory, and documentary photography and community photographers and participatory educators to challenge assumptions about representation and documentary authorship (Wang &

Burris, 1997, p. 370). Drawing on Paulo Freire's (1970) problem solving method in education by getting communities to critically think about their lives through visual image using line drawings or photographs that represented significant realities or "coded situation-problems" (Freire, 1973; Wang & Burris, 1997), Wang & Burris advanced this concept through the use of photography by community. I was first introduced to PhotoVoice by Dr. Claudia Mitchell, James McGill Professor in the Department of Integrated Studies in Education at McGill. Students were required to conduct a short PhotoVoice project as a requirement of a graduate course. Claudia and colleagues have completed extensive work to further advance PhotoVoice as a participatory research method in rural South Africa (Mitchell, 2008). PhotoVoice fits within an Indigenous methodology as it engages participants in the research process, provides opportunity for storytelling, and allows for the empowering of student voices.

It has been reported that there is a clear shortage of research examining children's understandings of obesity and that studies exploring this domain have focused on parent and care giver perceptions (Fielden, Sillence, & Little, 2011; Young-Hyman, Herman, & Scott & Schlundt, 1999). Recent studies have considered the understandings of teachers and health professions alongside those of the children themselves (Fielden, et al, 2011). A few years ago, I assisted a fellow graduate student who came to Kahnawà:ke to conduct her Master's research using a PR PhotoVoice project as one of her methods towards the development of Kahnawà:ke's school-based Physical Activity Policy (Hogan, 2014). There were positive outcomes in Kahnawake as a result of her project with elementary students; so was it fun and students enjoyed taking pictures, creating captions and having their pictures presented back to them at the end of the project. This type of data collection intrigued me because projects involving visual representations I thought, could be more interesting for participants, especially the youth as

many youth are savvy in how to use cameras and digital technology. Having gained knowledge and experience using this method, along with the desire to include children's understandings of school health promotion through a fun activity were some of the reasons for choosing this method.

Talking Circles

I chose the Indigenous research method of the Talking Circle in phase two and three of the data collection phases. Similar to a focus group, talking or sharing circles have long been used as a tool by Indigenous peoples of Turtle Island as a customary way to make decisions through a group process, to discuss a topic, for healing, and as a way of bringing people of all ages together for the purpose of teaching, listening and learning (Running Wolf, & Rickard, 2003). It has been said that it was originally practiced by the Woodland tribes in the Midwest (Running Wolf, & Rickard, 2003) and known in the Cherokee ancestral language as "a coming together of people for a special purpose" (Wilbur et al, 2001) and building a respectful group environment. For the Mi'kmaq, the idea of the talking circle symbolizes an approach to life and to the universe in which everyone participating in the circle has a voice, and that voice counts (Mi'kmaw Spirit, 2016).

Amongst the Haudenosaunee, clan meetings are conducted similarly to talking circles where the goal is to reach a decision by consensus after each participant has respectfully offered a perspective or opinion on the topic at hand. A topic for discussion is put to what is called, 'the well', or agenda, and clan families gather to discuss a topic, reach a decision, and present their decision to the chiefs during a council meeting. Clan meetings are divided by gender where men and women meet separately. This decision-making process teaches peace, respect, friendship,

sharing, equality, roles, responsibilities, and commitment. Clan meetings create an environment of inclusiveness, builds self-esteem, and creates a sense of unity and equality.

In the research context, talking or sharing circles are increasingly being used by Indigenous researchers in the field of health as a culturally appropriate qualitative data collection method to gather information or stories from participants in a respectful and culturally safe way, emphasizing confidentiality (Lavallée, 2009). Additionally, the talking circle is a preferred method for many Haudenosaunee researchers because it creates a respectful atmosphere by eliminating "individuals from dominating the discussion as may happen in a focus group" (Khayyat-Kholghi et al, 2017, p. 3), and also because it fits well within a consensus-building framework.

> "Talking circles are what we use to bring problems out into the open, to find solutions, to share our feelings and experiences, and to honor the sacred points of view of every person present. To interrupt a speaker is to bring dishonor on his or her words, to bring dishonor on one's upbringing, one's family, Tribe, Clan, and Nation."
>
> (Jamie Sams, 1994, p. 124)

The general protocols followed in a Talking Circle include listening with respect and providing opportunity for all to express their opinion for as long as they need to. The Talking Circle is normally led by one person who introduces a topic then sequentially, each member of the circle is encouraged to contribute his or her perspective. During a talking circle, an object that symbolizes connectedness to the land such as a stick, a rock, or a feather, can be used to facilitate the circle. For example, while holding the object, everyone is attentive and respectful to the individual until they are finished speaking.

SUMMARY

This chapter honors Indigenous researchers calling for decolonizing research methodologies and methods as a way to answer 'what we know about the world' and how we 'go about finding out what I believe can be known' through sharing our worldviews and replacing Western interpretations of our history and worldviews with our own. Decolonizing school health promotion research and evaluation for me is partly about shifting and reconciling research paradigms to better serve our communities. This long-term reconciliation process begins with conducting research within our own communities and placing our voices and epistemologies at the center of our research processes. If part of the responsibility of research is to cause no harm, we can say that is has been a source for distress for Indigenous researchers because of past (and ongoing) injustices with regards to how research is carried out within our communities. This is changing.

In answering the question, 'what methods do I choose to proceed with my research,' as Indigenous researchers, we choose to decolonize our own selves by translating or transmitting our knowledge based on the assumption made in chapter one, that using collaborative and community-based participatory research approach a decolonizing research tool. I have taken the position as an Indigenous academic female to incorporate and share as much as I can about Haudenosaunee understandings of an Indigenous research framework. Based on accountability, building and maintaining respectful relationships, Western methods and theories are not rejected, rather, this research is an opportunity to explore the bridges between Western and Indigenous approaches to theory and method.

The next chapter continues with creating a space to embrace decolonizing research by taking the reader through the information gathering process, and what has been discovered in this study. Woven into chapter four are detailed descriptions of how I followed both academic and local and cultural research protocols which is a culmination of my training both within the academic institutions that I have studied at, as well as the training I have received through my affiliation with KSDPP.

CHAPTER 4: THE RESEARCH PROCESS, DATA COLLECTION & FINDINGS

INTRODUCTION

This chapter details the pre-research and data collection process, analysis, and research findings of this study. Within this Indigenous research framework, a major consideration is the responsibility to my community as an insider, that is, information sharing according to both academic and community ethical guidelines. Referring to assumptions made in chapter one, "Indigenous researchers have a dual responsibility of satisfying both the academy and their communities as the "field" is also their home (Ives, Aitken, Loft, & Phillips, 2007, p. 16). As outlined in the previous chapter, there are number of ethical guidelines to consider prior to, during, and following a study such as the university's, CIHR's Research Involving Aboriginal People, the new version (chapter 9) – Research Involving Aboriginal Peoples – of the Tri-Council Policy Statement, Indigenous KT, and OCAP®. Other guidelines I considered are 'working in ethical space' (Ermine, 2007), Kirkness & Barnhardt's (2001) 4 R's of Research – responsibility, reciprocity, and relevance -- and very importantly, KSDPP's Code of Research Ethics (2007).

Because of my affiliation with KSDPP as a Community Advisory Board and Research Team member, and in accordance with its Code of Research Ethics, there are a number of steps that I was responsible for adhering to while conducting research with my community. They include the following:

- Ensuring Kanien'kehá:ka culture and values are embodied in the research process while maintaining the scientific integrity of the research;
- Ensuring that the community has opportunities to participate in all aspects of the research;

- Ensuring that the research is relevant and beneficial to the community and in agreement with the standards of competent research;
- Following steps of the Review and Approval Process for Ethically Responsible Research;
- Knowledge Translation: Disseminating research results back to the community, in this case, the KSDPP Community Advisory Board and Research Team Members.
- Responding to community requests for information after the research project ends.

(KSDPP Code of Research Ethics, 2007)

Pre-research Consultation & Ethical Approval

While my university approved the use of human research subjects through the Institutional Review Board process granting me access to conduct this study, the process to conduct PR in my community involved much more than that. The following details what fellow Maōri researcher Lynn (Pere) Russel (2006) named as 'Pre-research Consultation.'

After much discussion and brainstorming with KSDPP CAB and Research Team members, staff, and individuals from the Schools Wellness Committee, a presentation outlining my research goals and objectives was made to KSDPP during a monthly CAB meeting. Soon after, ethical approval was sought simultaneously with the KSDPP CAB and the university's Research Ethics Board Office. Once approved by both research boards, invitations were then made to data collection sites according to local protocols. For example, I made verbal contact with the administrators of the KMHC, the Kahnawà:ke Education Center, both schools, and KSDPP which was followed up with a letter requesting permission to contact both their staff and students. Once approved by the Kahnawà:ke Education Center, I was required to make a formal oral presentation to members of the Kahnawà:ke Combined Schools Committee (KCSC) and successfully answered all questions asked by the committee (see Table 6).

Table 7. Ethical Approval Process

Ethics Approval Process			
Ethics Board	**Date of presentation**	**Date of request**	**Date of approval**
KSDPP CAB	June 16, 2015	July 16, 2015	July 22, 2015

McGill REB	n/a	July 15, 2015	October 15, 2015
KCSC	November 10, 2015	November 10, 2015	November 13, 2015

What was found through this process of pre-research consultation was that extra time was necessary to ensure that the community was satisfied with the study and that all questions were satisfactorily answered. As a result of this process, many suggestions and improvements were made to the design of this study, and refinements were made to my research questions. For instance, I was given the suggestion to use a Haudenosaunee lens as a basis for carrying out the entire study. I was relieved because it had been very challenging in choosing different frameworks which were not suitable for me. The following is an outline of the research process.

Table 8. The Research Process

The Research Process	
Step 1	• Several brainstorm activities with KSDPP and Schools Wellness Committee • Research proposal • Ethical approval (university & community) • Pre-research consultation • Literature review • Finalize research approach, theoretical framework & methods
Step 2	• Develop sample selection • Participant recruitment • Data collection (3 phases: interviews, PhotoVoice Project, Talking Circle) • Transcribe and organize data
Step 3	• Iterative data analysis process • Develop research findings in alignment with approach, theoretical framework & methods • Write dissertation
Step 4	• Dissemination of results • Share the knowledge with university and community (occurred throughout the study)

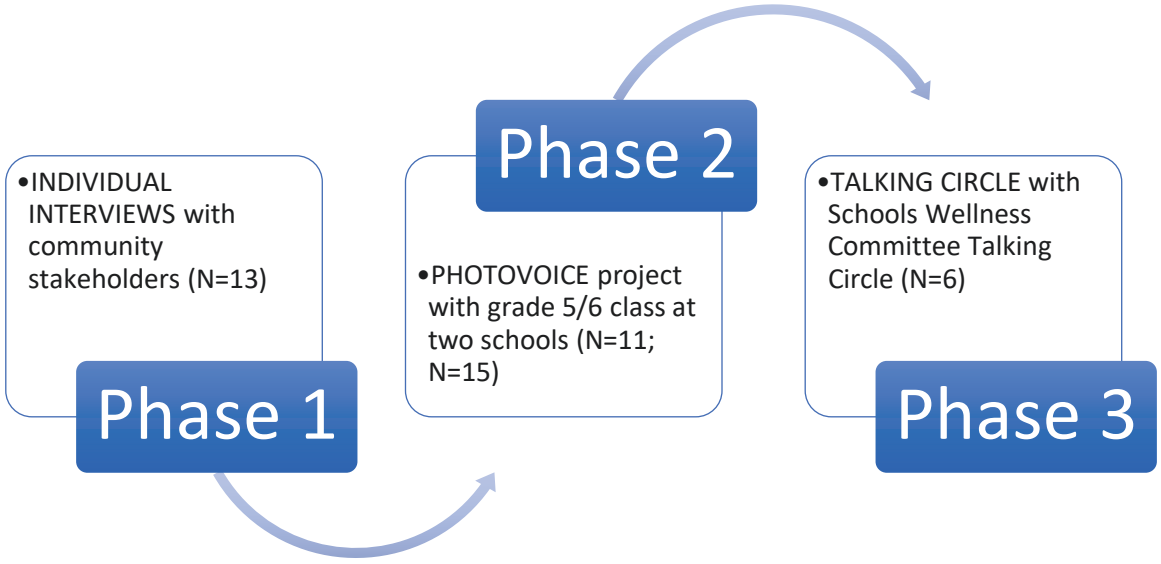
The study then proceeded to the data collection phase beginning with participant recruitment.

DATA COLLECTION PHASES

The following details each phase of the data collection portion of this study that occurred between December, 2015 and July, 2016. An Indigenous research methodology is reciprocal

(Kirkness & Bernhardt, 2001; Wilson, 2008), therefore as often as I could, either food was shared, or participants were given a small gift of appreciation for taking part in this study. Throughout the data collection phase of the study, regular updates were provided to both KSDPP CAB and KSDPP RT during monthly meetings. The purpose of updates are to provide, answer questions, seek advice, and to ensure I was adhering to KSDPP's Code of Research Ethics.

Figure 12. Data Collection Phases



Using purposive sampling, a sample size was selected from stakeholders/knowledge users, in this case, community members, or knowledge users of the KMHC HEP for Diabetes Prevention, and school health promotion in general. They include KMHC HEP authors, educators, school and health administrative leaders, KSDPP CAB members and staff, and grade 5/6 students in each of the two participating schools. The data collection portion of the study was carried out in three phases. I chose to first conduct individual interviews (N=13) from community stakeholders; then conducted a PhotoVoice Project with grade 5/6 students (combined grades) at each of two

schools (N=11; N=15); and finally conducted a Talking Circle with the Schools Wellness Committee which was created by the KSDPP (see Figure 12).

Phase 1: Individual Interviews with community stakeholders

For this first phase of the data collection, my aim was to: 1) better understand how community stakeholders' responded to the 2012 Final Report: Evaluation of the KMHC HEP for Diabetes Prevention; 2) gather their perspectives on the future of the program; 3) gather their perspectives on broadening the program to a more comprehensive school health promotion model.

An important consideration in research with Indigenous peoples is how potential participants are respectfully approached. What I took into consideration was busy schedules, and knowing that within the past few years, several health-related projects have been ongoing in the community, and that being an 'insider researcher', it is was important for me to have the trust of everyone involved. I took the extra time to explain the project, allow for the extra time to schedule interviews within busy schedules.

Invitation letters were then sent to KSDPP, KEC and the KMHC to invite participation, explain the intent of my study, and to invite any questions before contacting individuals for interviews. An e-mail and follow up telephone call was then made to each of 13 individuals, and to schedule interview appointments. No one refused to be interviewed, all agreed to sign the consent form, and all agreed to be audiotaped. I offered to send the interview guide via e-mail prior to each interview. Of the 13 community stakeholders interviewed, two are co-authors of the original KMHC HEP,

five are organizational leaders (i.e.- directors, school administrators, manager), one is a KSDPP Community Advisory Board and Research Team member, and the remaining five are educators

and health professionals, or actual implementers of the KMHC HEP program. All interviews were digitally recorded and transcribed verbatim by the researcher. A set of 12 open-ended questions (see Appendix 7) were used to guide the interviews. Interview times ranged between 31 minutes and 1 hour and 10 minutes, and were conducted at locations convenient to the interviewee. One interview was conducted by telephone. During each interview participants were gifted a Shop Kahnawà:ke Gift Certificate.

Phase 2: A Photovoice Project with Grade 5/6 Elementary School Students

In this second phase of data collection, my objective was to gather perspectives from students about what they have learned about preventing type 2 diabetes through health-related school teachings and activities, and what they thought would be important to learn about. Gathering their voice through the use of PhotoVoice seemed suitable for this age group, as I believed that it would be a fun activity, and more importantly, should they have any concerns, this could be an outlet for them to share their voices.

When the individual interviews were almost completed, and because I had already been granted permission to collect data within the schools, I re-contacted the principals asking for permission to conduct the Photovoice project with students. It was recommended to conduct the project with the combined grade 5/6 students for a couple of reasons. Mainly because it was hypothesized by school principals that because of the students' age, it was more likely that these older students were more familiar with the KSDPP HEP for diabetes prevention. I personally contacted the teachers and met with them to discuss the project and invite their input. Teachers were very enthusiastic about the project and agreed to assist in any way they could. Once parental permission was granted for each student, several visits were made to each school to work with

the students and teachers to carry out the project. A total of five activities were planned and implemented in each school. Of the two groups of students, 11 were in one class, and 15 in the other. During each visit, I prepared and shared a platter of healthy snacks with the students and teacher (fruit, vegetables, cheese, and crackers), at one school, but because it was agreed to conduct the project in the other school during computer class time, instead, they were each gifted with a USB flash drive, donated by KSDPP. The following details each activity:

Activity 1: Introductions; explanation of Photovoice; discussion about health and wellness and explanation of the importance of gathering their voices through photos; distribution of parental consent forms.
Activity 2: Collect parental consent forms; recap explanation of project; divide students into groups; distribute instructions; accompany students and teacher in and around the school to take photos.
Activity 3: Return to classroom; have students work in groups to select photos; have students create captions for chosen photos.
Activity 4: Return to classroom; PowerPoint presentation to students of chosen photos with captions; discuss photos and captions with students; conduct an interpretive session through a Talking Circle.
Activity 5: Return to classrooms to present PhotoVoice project to students.

As one of the schools is a Kanien'kéha immersion school, I relied on the bilingual health promotion teacher to guide the discussion in Kanien'kéha. For example, during the first activity, students seemed a bit shy at first until the teachers provided encouragement to the students in our language and wrote some of their responses in Kanien'kéha on a flip chart. After that students became more engaged and began raising their hands, eager to share their stories about what they know about health and wellness. For example, one student excitedly told the story of when the nutritionist came to their class and taught them different ways of serving yoghurt with fruit. Students talked about some of the foods they did not like from the cafeteria, even suggesting to write a letter to the school cafeteria staff to offer more healthy foods. Students also shared stories of eating traditional foods (corn, beans and squash) and the importance of eating traditional

foods with family and during traditional ceremonies (i.e.- sacred ceremonies where corn mush is shared). Some students expressed that they enjoyed participating in yoga classes during physical education class time.

Carrying out the PhotoVoice project with grade 5/6 and 6 students in the other school involved working with students during computer class time. This was because the homeroom teacher was not available and instead the computer teacher volunteered to work with me during this time.

It was a bit difficult at times scheduling the several activities at each school, which as a result, took much more time than anticipated. In several instances, the activities had to be rescheduled due to school-wide functions that took precedence over the project such as general assemblies, track and field day, and students partaking in school field trips. Also during the PhotoVoice project, one of the teacher's family members passed away, therefore the planned activity was postponed until she returned to school.

Once steps one through four were completed, captioned photos were grouped by theme and then re-presented to students in each class where students were given time to further discuss their photos where they elaborated on health promotion in their lives and at school during a Talking Circle. Talking Circles were transcribed verbatim by the researcher and further grouped in the final themes.

Phase 3: Talking Circle

During phase three, a Talking Circle was held with the Kahnawà:ke Schools Wellness Committee at Kateri School during lunchtime in the month of April, 2016. Of the six participants, five had already participated in an individual interview during phase one. After

conducting preliminary data analysis of individual interviews, the goal of the Talking Circle was to elicit a more in-depth understanding about how the community can collaboratively build a school health promotion model for the two elementary schools of this study, and possible extend it to other schools in the community. A hot meal was catered by a local caterer and shared with the group during the discussion. The Talking Circle, which lasted one hour and 16 minutes, was transcribed verbatim and coded using the same techniques as outlined in phase one.

ANALYSIS

Thematic analysis is a widely-used method practiced in applied sciences to identify patterns of meaning across a dataset (Braun, & Clarke, 2006; Boyatzis, 1998). Identifying patterns, or themes are ways to provide the researchers with answers to research questions that are being addressed. Inductive analysis is seen as a 'bottom-up' way to approach themes that are strongly linked to the data without an already identifiable set of codes, in other words, it is data driven (Braun, & Clarke, 2006). The theme represents a patterned response that does not necessarily mean it represents half, or even more than half of one's data items. Nor is the case if a patterned response is only present in one or two sentences (Braun, & Clarke, 2006). For example, should I find that each and every person mentions 'school health promotion' during the data collection phase, this would not become one of the chosen themes. Rather, themes arise from something that 'stands out', where together, and depending on the context, they capture an important element, such as the *way* school health promotion is discussed, the importance of its effectiveness, or community readiness. Using inductive thematic analysis, the following steps were used for transcribed individual interviews with stakeholders and Talking Circles.

1. Verbatim transcription of individual interviews with stakeholders and School Wellness Committee;
2. Repeated reading of the transcripts;

3. Manual generation of initial codes;
4. Manual generation of themes and sub-themes;
5. Define and rename themes identifying the 'essence' of each theme;
6. Write up of detailed analysis by weaving together and contextualizing in relation to research question, literature, methodology and theory.

The following steps were used for the PhotoVoice project with grade 5/6 students:

1. Photos were chosen by students; in groups, students assigned captions to each photo;
2. Codes were generated from captioned photos for each school;
3. Photos grouped into themes;
4. Photos were regrouped according to new themes which arose following the Talking Circle/interpretive session

FINDINGS

Phase 1: Individual Interviews with Community Stakeholders

This first section presents stakeholders' responses to recommendations contained within the Final Report: Evaluation of the KMHC HEP for Diabetes Prevention. For coding purposes, participants were categorized into the following groups: Authors (of the KMHC HEP for Diabetes Prevention); Administrators (representing education and health); implementers (educators, school nurse); and KSDPP (CAB member, intervention staff member).

THEME 1: SHIFTING OF TIMES

According to participants, since the development and establishment of the KMHC HEP in Diabetes Prevention from 1994-1997, much has changed in terms of delivering health education in the schools, access to technology and internet sources, further revival of the culture, and the creation and implementation of a school Nutrition and Physical Activity Policy with the elementary schools that are in various stages of implementation. The following represents stakeholders' responses and perspectives:

Authors: One of the KMHC HEP for Diabetes Prevention authors confirmed that much has changed in terms of technology in the classrooms, and how the community is constantly evolving in terms of cultural revitalization, "there's people who are starting to plant gardens at the school…it's the cultural teachings," said one participant. As well, she explains, "instead of being nutrition education, we're more focused on food exposure and familiarity and working with food." Another author, who also agrees with broadening the curriculum and having to deal with competing interests at the school said, "You can't just single out diabetes anymore…it's useless right now if you don't have the time to teach it…and what about all the things you compete with?" Both authors commented that they have seen a shift in recent years from learning about the prevention of type 2 diabetes to learning more about broader health topics. As well, it was pointed out that teachers have different teaching styles and that each school is structured slightly different. For example, while the Karonhianónhnha Tsi ionterihwaiensthákwa school has 'health' class as a dedicated time slot within their schedule, Kateri School relies on homeroom teachers, and other teachers, to teach health at their discretion.

Health Administrators: Health administrators recognize that there are many competing interests and time limitations to delivering health promotion to the school sector. Some efforts have been made by health administrators to make improvements to the program, for example, one health administrator commented, "I hired somebody to review and see what needed to be changed and what could be updated. I also hired a student during the summer to work on it with her." Another administrator noted that because of the ongoing construction of the addition of the hospital for the past few years, updating the curriculum became less of a priority. Two other health administrators made the following comments about the importance of stakeholder ownership, 'school champions', and cultural appropriateness:

School Administrators: As introduced in chapter one, health promotion at Karonhianónhnha Tsi ionterihwaiensthákwa and Kateri School is implemented in different ways. At Karonhianónhnha Tsi ionterihwaiensthákwa, health promotion is embedded within the school's schedule. At the time of the evaluation, there was a designated health classroom, with two teachers that taught the KMHC HEP for Diabetes Prevention, one for younger grades (Nursery-2), and one for grades 3-6. Since then, because of the increase in the school's nominal role, the classroom was needed to accommodate an additional class of students, therefore, the two teachers instead, 'travelled' to homeroom classes at a designated time during the six-day cycle. At Kateri School, homeroom teachers are responsible to teach the 10 x 45 minute lessons throughout the school year, and lessons are taught at their discretion. In addition, it has been pointed out that students receive health promotion instruction through various school-wide activities, during physical education class, and from other teachers. The schools also rely on support from KSDPP school intervention staff to conduct after school programs. At the time of data collection, The Kateri School administrator's goal was to reintroduce a designated time slot for health promotion. School administrators made the following comments:

> "I do have a sound background in health, the health program, Kanien'kehá:ka health is actually a subject area, it is now embedded in the schedule…I looked at the program and am looking towards a culture-based health curriculum, the culture, the Ohenton Karihwatékhwen [traditional thanksgiving address], it's the foundation of it, and everything pulls from that…I want the curriculum to be updated with a Kanien'kehá:ka health approach basis."
>
> ('School Administrator' participant, February, 2016)

Implementers: One participant, an employee of the hospital's Community Health Unit, who had previous teaching experience was given the task to revise the KMHC HEP for Diabetes

prevention. She initially worked with a summer student to create updated lesson plans that incorporated visual materials and more cultural content. It proved to be an overwhelming task as she was doing it on a part-time basis. Researching internet sources, she was able to find and adapt some of these resources into the lessons. She, along with other hospital staff, soon recognized that there was a need for a concerted effort to develop a more coordinated approach to health education in our schools.

> "There's so many different things outside of just exercising and eating well that make a person healthy and well,…at the end of the day I feel the curriculum should be more than what it is…I certainly wanted to get an advisory board or something of some sort together to look at what we could change."
>
> ('Implementer'' participant, December, 2015)

As a result, a small working group was soon formed and later joined efforts with the already established Schools Wellness Committee, who began to develop a plan of action for a school health promotion that would later be presented to the Kahnawà:ke Education Center for consideration.

KSDPP: KSDPP staff, CAB members and school intervention facilitators continue to play an important role in the delivering of school and community health programming. As explained by KSDPP participants:

> "So then our approach was, ok, we could decide to try and evolve the curriculum, or we could make health education relevant and exciting in the school again."
>
> (KDPPP participant, December, 2015)

THEME 2: SUPPORTING A COLLABORATIVE APPROACH

This next section outlines community stakeholders' perspectives on current ongoing community and school health promotion efforts. It was reported that many public services organizations are engaged in scheduling time to visit both schools to implement different health related interventions such as: physical activity and healthy lifestyle interventions (KSDPP), fire prevention (Kahnawà:ke Fire Brigade), school & travel safety (Kahnawà:ke Peacekeepers), anti-bullying programs and social-emotional wellness programs (Kahnawà:ke Shakotiia'takehnhas Community Services), nutrition/oral hygiene/school nurse (KMHC), and more. Participants report that while this is important, it does have its disadvantages such as overlap and duplication of delivery. Schools also rely on the cultural center, parents, and extended family member volunteers for additional support. While there is a considerable amount of health promotion activities happening at the schools that already incorporate cultural teachings, and easily available resources available to draw from and adapt, as well as staff and community 'champions' that are relied on for encouragement, the majority of respondents did report that key factors to improving the success of school health promotion would be through a more collaborative, organized approach. Another key factor to school health promotion, they say, is administrative and management support.

Authors: One of the authors, a nutritionist, who has worked in Kahnawà:ke for over 25 years became involved with KSDPP, "even before KSDPP was ever started….it's always been part of my job to do some kind of nutrition education in the schools and some kind of nutrition in the community…so they [KSDPP] were very important in the sense as a resource, and they brought the educational know-how of what to put into this at the schools, how to put this into community, so we've always collaborated like that, make a good team."

While the authors have contributed a lot to the community in terms of developing, implementing and piloting the original program for diabetes prevention since 1994-1997, they recognize that there remain challenges in terms of food service delivery at the school cafeterias. One of the challenges identified by one of the authors for example, is the rising cost of food and fresh produce, "Food has gone up so high, like produce…people will eat whatever they can afford, never mind what's good for you."

Nevertheless, as noted previously, much more information about health and wellness has been acquired since the beginning of the KMHC HEP Program for Diabetes Prevention, and many ongoing efforts from the health, safety and community services sectors, as well as language and cultural revitalization has increased over the past several years.

Health Administrators: The hospital's Community Health Unit implements a school program in each of the two schools. A school nurse works part-time from the schools as part of her schedule. "There's a whole part of health promotion in education that comes out of the [KMHC] Community Health Unit…and the authors wanted to get it just perfect." Participants say more coordination is needed, "The problem about trying to get into the schools, there could be times in the year when there's two or three groups coming to the school, trying to get time." One administrator noted that it was easier to schedule time with one of the schools because of the health class time slot. One health administrator, who has partly managed the program since 2010, was very protective of the program, noting that "the authors worked very hard and are very protective of it." Health administrators also agree that it "has evolved into something bigger…and the information is still relevant." A similar comment made by one health administrator is "Wholistic health is not something new."

> "I think it's a more coordinated approach to health promotion…how there's a lot of us in the community that are trying to get in the schools, or trying to impart some kind of education." "So if everybody got together and collaborated with the schools to say these are all the things we need to teach these kids and how do we do it all together…and understand what the school challenges are and what their limitations are."
>
> ("Health Administrator' participant, March, 2016)

School Administrators: According to school administrators, there are certainly many ongoing health promotion activities regularly coordinated according to the yearly school calendar that are culturally relevant, "In the health program, you teach them about giving thanks, and you give thanks for your food, and it's like even in mental health well-being…you teach them the words skénnen [peace], and kahnikónriio [a good mind]." One administrator explained that she consults with staff and listens to the needs of the community. All agree that there is a greater awareness about healthy living, lifestyles and choices. School administrators provided a lengthy list of healthy school activities (i.e.- walk-a-thon, yoga, Skennen'kowa [peace] Room, promoting healthy snacks and lunches, school policies, incentives for students).

> "Through physical education classes, extra-curricular activities, walk-a-thon, through KSDPP, the School Walking Bus, incentive awards…yoga in the Skennen'kowa [peace] Room…KSCS [community services] comes in to deliver anti-bullying messages."
>
> ('School Administrator' participant, February, 2016)

The schools rely on KSDPP and the hospital for supporting school wellness, School administrators recognize and are aware of the challenges. For example, in one school, materials must be translated into Kanien'kéha. Teachers do not have the time in their schedules for translating materials from English to Kanien'kéha. As well, according to respondents, it is difficult keeping up with evolving technology; more parental education is needed; many

organizations are vying for students' time; and recommend that staff role-modelling could be improved upon.

Implementers: Those that are involved in the delivery of health promotion to our youth are very resourceful and are also aware of easily available resources that can be adapted to each school setting. At one school for example, the physical education teacher uses Physical and Health Education (PHE) Canada's At My Best fitness program' toolkit which helps build student awareness of their self and their emotions, while helping students to see connections between physical activity, healthy eating, and emotion well-being. Because one of the school's focus is to implement a French immersion program, he teaches this subject in the French language. As well, the lunchrooms at each school are operated by small business owners, and although they do not always serve healthy food choices, school staff and cafeteria managers rely on KSDPP and the school nutritionist to provide ideas for food preparation and healthier choices guided by the schools Nutrition Policy. Although there are many resources in the community to draw from, it has been said that key factors to success would again be to better utilize the skills of local community individuals and organizations: "There's certain people in the community that have expertise in a certain area. And I find that a lot of times they're underutilized." "And I think that at times they were overwhelmed because there's a whole world of health information out there, and prevention information, and how to prioritize what's needed and what's not needed."

One deliverer commented that, "This is not new to us," and while she relies on the yearly school calendar to help coordinate her activities, she would still like to see a more coordinated approach.

KSDPP: Throughout the years, KSDPP staff and volunteer CAB members have been steadfast in maintaining a supportive environment to the schools and the community. All of the respondents of this study link KSDPP to major successes in community mobilization for health promotion, including supporting the KMHC HEP for Diabetes Prevention, being involved in the development of school health policies, and partnering with the schools to create school and community-wide activities. After the dissemination of the KMHC HEP Final Report to community stakeholders, KSDPP offered to facilitate the process of mobilizing the community to either update the existing health program for diabetes prevention, or to broaden the scope to develop an overall school health promotion model. Within the past several years, KSDPP has had to operate with less funding and resources, nevertheless, they are still recognized widely in the community for promoting general well-being.

THEME 3: COMING TO ONE MIND

This final section of the data collection phase represents the overall perception of community stakeholders' views around developing a culture-based school health promotion model for elementary students in Kahnawà:ke. This model, they say, could be developed to be transferrable to other schools within the community as well as other Indigenous communities. Participants were asked to comment on what they think is needed to improve overall school health promotion for elementary school students in Kahnawà:ke, and what their views were around the Schools Wellness Committee's plans to develop an overall comprehensive school health promotion model for its elementary schools. All participants support the idea, and have provided rich information about how this could be facilitated, as well as the pros and cons of carrying out such an endeavour.

As told to me by participants, there would be many factors to consider should the Kahnawà:ke Education Center consider to support the building of a culture-based school health promotion model. Many have said the first 'buy-in' should come from the parents through the Kahnawà:ke Combined Schools Committee, In-School Committees, and the Kahnawà:ke Education Center. It must be a community initiative. One factor to consider is that different schools deliver health programming in different ways. All participants were aware of the Schools Wellness Committee's efforts to offer the facilitation and planning of a school health promotion model in Kahnawà:ke, although much has yet to be accomplished. Within the past few years, the Kahnawà:ke Education Center has been focused on carrying out its new strategic plan, with many recent changes and additions to its staff and renovations to school facilities. Another factor to consider is that due to the ongoing expansion and construction of the new addition to the hospital, which is expected to be completed within the next year, administrators have had to shift many of their priorities. All of these factors must be considered prior to all stakeholders coming together as 'one mind.'

I first provide the opinions of the stakeholders, followed by a summary of the facilitators and barriers to carrying out such a plan within the community of Kahnawà:ke.

Authors: As many others have suggested, getting support from the community is key to developing a collaborative approach to school wellness, "My first, most important, I think, criteria would be buy-in from the schools, the staff, and teachers…What is needed is people to be open-minded about things, about changing, you know, realizing that we can't stay stuck in what we did 20 years ago or more…the whole school environment has to be more supportive to health promotion." Another deliverer commented on the importance of including evidence-based

teaching practices that are measurable, and as others have said, the idea is not a new one, "So you have to look for evidence-based teaching practices too…prioritize…this is not a new idea, I long suggested it years gone by."

Health Administrators: Health administrators expressed their support through the encouragement of focusing on overall community health, "Get all vested partners around the stable, strategize what direction we'll take as a unified approach." What was also expressed was the need for more partnering, "That's what I would like to see, more partnering…by bringing all the partners together we were able to work together."

School Administrators: One administrator stated that a staff person within the education system is currently developing an outline for a Kanien'kehá:ka curriculum for the schools, which she suggested, could be easily be linked to incorporating health promotion. She also expressed the importance of setting goals and visioning, "You have to see what your long term goals are in this framework, what's the vision, what's your outcome, what do you want in the end…and that vision for education is tied with the community as well." She also suggested that perhaps the model could begin as a pilot project, starting with one grade level. At the end of the pilot project, it could be assessed. Another commented on the support of the Schools Wellness Committee, "I'm hoping through the Wellness Committee…we're trying to look and see if we could get more time dedicated towards health promotion."

Implementers: Coming to one mind for those implementing health promotion in our schools is the desire to see a more coordinated approach that would incorporate the participation of all those involved, including parents. This addresses one of this research's sub-questions about how the community could collaboratively work together. It would entail buy-in from the Kahnawà:ke

Education Center and parents; increased role-modelling among staff; and developing a concerted approach beginning with an inventory that would provide a snapshot of current ongoing school health promotion efforts.

Because the Schools Wellness Committee, supported by KSDPP and the Kahnawà:ke Education Center, has offered to facilitate this process, it has been suggested to support the ongoing efforts of the Schools Wellness Committee in making school health promotion relevant again, and to gather the expertise of school health implementers:

> "I guess our new way of thinking is that we're looking for that collaborative approach to making health education relevant again in the schools, and we started to do that through the Wellness Committee…I guess the challenge is just getting everybody on board." ('Implementer' and 'KSDPP' participant, December, 2016)
>
> "It's not a one person job, it's going to take a series of people to bring expertise to the table, to collaborate what's done." ('Implementer'' participant, February, 2016)

For one participant, this also means increased role modelling within the schools, "You need to walk the talk." ('Implementer' and 'KSDPP' participant, December, 2016). Finally, this could begin with an inventory of current school health promotion efforts stated one participant,

> "And I'm sure that we talked about this in the Wellness Committee meeting, that you get an inventory first of all the people who want a piece of time to spend with the students to kind of go by themes…this way, if everybody worked together, collectively, rather than trying to fight this one for time, or that one for time, it would probably go smoother."('Implementer'' participant, February, 2016)

KSDPP: KSDPP has long been involved in community engagement around healthy lifestyles, and recognized the need for translating the knowledge to the community, strategizing together, and visioning a school health promotion model that is culture-based:

> "I think that there needs to be a KT [knowledge translation] with the school community including the School Committee, administration, parents, and teachers about what health promotion is…And I don't know what that looks like, but I think that engaging in the strategizing and the planning around as community organizations with the schools, you know, to do that…So it's finding that, it's having that visioning to get people to connect it to and say ok this is important…but how awesome would it be if our community, that has 5 school systems, to be able to come to one mind to see and recognize that these are the different ways that things are being done and that it's a cross referencing and sharing for each other… Imagine a Haudenosaunee health education program that has common core values, worldview, belief systems all in place as a foundation."
>
> "So KSDPP takes the lead in facilitating the School Wellness Committee and that there's an agreement that the Wellness Committee has a role to play in implementing the recommendations, which goes in various levels…So it's building and/or reinforcing the team of organizational players."
>
> ('KSDPP' participant, December, 2016)

Another KSDPP participant recognizes the need to build an evaluation component into school health promotion as well as ensuring that training is regularly provided to implementers of a program:

> "What is needed to improve overall health promotion in our schools is that there needs to be some form of evaluation mechanisms for this to be relevant again in the schools…but we still need parental buy-ins…I think it's a good opportunity then for the health, KSDPP and education to build a partnership and look at a long term health based professional development."
>
> ('KSDPP' participant, December, 2016)

Phase 2: PhotoVoice with grade 5/6 students

The purpose of the PhotoVoice Project with two grade 5/6 classes, one at each school, was to provide students with participatory way of expressing their views on what they had learned about preventing type 2 diabetes as well as health and wellness in and around their school, and to gather their perspectives on what they would find interesting to learn about school health

promotion. I was also interested in understanding more about what may hinder their motivation to be more physically active.

Once photos were taken by students using school iPads, we gathered back into the classroom and students sat in groups to choose their favorite photos. While taking photos in groups in and around the school, each group was given a sheet of questions to keep in mind as they were taking photos such as: What makes me feel like being active? Where are places that I play sports or games and get active? What stops me from being active? What are some activities I wish I could do?

After students chose their favorite photos, each group was asked to produce an agreed upon caption for each chosen picture. Once this process was complete, my next task was to assemble the photos with students' captions so that I could later return to the schools on another day to conduct group discussions with students to reflect upon their photographs. Also known as an interpretive session, I modified the format of the discussion around the principles of a Talking Circle so that students would have an opportunity to speak one person at a time while the class respectfully listened. A total of 14 photos were chosen by each class. After the recorded interpretative session, the discussion was transcribed and photos with captions were then grouped according to themes for data analysis.

The first finding to emerge was 'barriers to being healthy'. During the Talking Circle at one school, students made remarks and shared their perspectives about their overall awareness of school health promotion such as: the importance of personal hygiene, that learning and reading is linked to health, and many lessons they acquired about nutritional foods and how to better prepare them. For example, one student stated, "Milk is good for you and it gives you calcium,

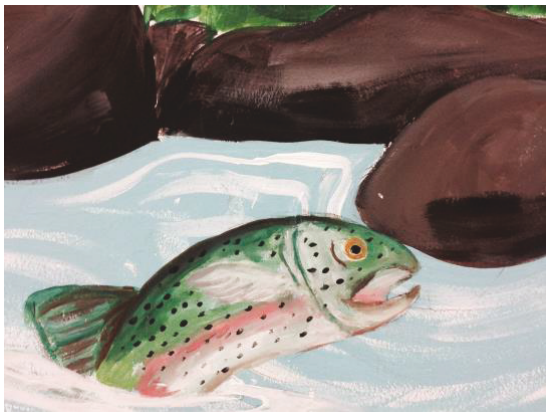
they sell chocolate milk here." This prompted a discussion among students about the food offered in the cafeteria. Some students appeared dissatisfied with some of the unhealthy food choices offered at their school. During the discussion, students requested to write a letter to the cafeteria manager requesting better food choices. Although students did not directly respond to questions about what knowledge they specifically gained about the KMHC HEP for Diabetes Prevention, one student recalled the memory of having a dedicated health classroom, which was no longer the case. One student also shared a story about Homer Simpson, the cartoon character, developing diabetes from not drinking enough water.

Figure 13. PhotoVoice Sample: Barriers to being healthy

"The cafeteria sells unhealthy food, are they going to take out all the bad food at our school? They used to sell ice cream sandwiches, but now they don't."

The next finding, 'culture as a facilitator to being healthy and well' points to students' awareness of their cultural teachings. Students took many photos of wall paintings depicting women gardening, and photos of showing respect for mother earth by picking trash in the school yard and recycling, as well as participating in Earth Day. During the Talking Circles, students told stories about attending ceremonies at the Longhouse and eating corn mush, a ceremonial food, as part of a healthy diet. One student also talked about how to make medicine from plants.

Figure 14. PhotoVoice Sample: Culture as a facilitator to being healthy and well



"Give thanks for our clean waters."

'Physical activity as school health promotion' was identified numerous times in their photos. For example, students took photos of playing in the school yard, exercising in the school gym adding the caption, "He's dipping, he's exercising and he can get a lot of exercise, you won't get diabetes and die at 30 years old, you could lose a lot of fat." Some student shared stories of family members living with the diabetes, and it seemed evident that students feared the disease and were interested in learning more about how to prevent it. Other photos were taken of students running in the school yard, playing on school outdoor equipment. One picture was taken of students playing together outside and produced the caption, "Respect one another…no bullying!"

Figure 15. PhotoVoice Sample: Physical activity as school health promotion

"Having fun, because you're playing outside."

'Knowledge of school health promotion' was identified as an outcome of students receiving lessons from the school nurse about personal hygiene, drinking water to keep hydrated, and reading a book in the library because, "Reading is good for you mentally, you can learn by books, you can be smart." During the Talking Circles, students shared their experiences of learning to make healthy food choices, participating in KSDPP initiatives, taking part in the Walking School Bus and having fun not only through organized sports, but through everyday physical activity. One student commented how fresh air is important, while another group of students took a photo of a student washing his hands. Their captioned photo read, "Wash your hands with soap and water to keep the germs away." Another picture chosen by another group had the caption, "Always drink water throughout the day to stay hydrated, healthy and happy!"

Figure 16. PhotoVoice Sample: Knowledge of health promotion

"Water is healthy, if you don't have any water, your body will die and dehydrate, they sell water here for a dollar but you can get free water at the water fountain."

It is evident that an awareness has been created amongst students in both schools about healthy eating, and students feel comfortable raising concerns about school issues they believe can make them unhealthy. It was very refreshing to hear stories from students about getting involved in planting, harvesting and craft making during a corn harvest operated by community members interested in sustainable gardening for the community. Towards the end of each Talking Circle,

students were asked if they had any suggestions for their school administration. Their suggestions included the following:

- More healthier choices in cafeteria
- Longer recess
- "We should get lacrosse here"
- Better playground
- "We had yoga before, I don't know what happened"
- More lunchtime groups
- "Maybe we could walk more"
- How to cook better meals at home
- How to get medicine from plants
- Planting medicines, planting, planting trees
- No uniforms
- House building club
- Video club

Phase 3: Talking Circle with Schools Wellness Committee

After consultation with stakeholders in phase one, a Talking Circle was held with members of the Schools Wellness Committee to specifically answer the research sub-question outlined in chapter one: How can we as a community collaboratively work together to build a culture-based school health promotion model for elementary students at Kateri School and Karonhianónhnha Tsi ionterihwaiensthákwa schools? The purpose was to present initial findings from phase one, and to elicit a more in-depth conversation about moving forward with plans to develop a school health promotion model. This phase of the data collection ran concurrently with the PhotoVoice project. As mentioned above, a meal catered by a local caterer provided by the researcher. Because of busy schedules, lunchtime was the only available time slot to gather everyone together. Five out of the six participants had already been interviewed individually. Talking Circle guiding questions addressed:

1. Views about health promotion in general;
2. Views of the Schools Wellness efforts to plan and develop a school health promotion model;
3. Views on building collaboration and partnerships; and
4. Suggestions and recommendations.

What was found was that much of what had already been revealed during the individual interviews was reiterated during the Talking Circle. What did occur though was a more in depth conversation about the actual steps needed to be taken to build a school health promotion model. Notably, after the first question was asked pertaining to perspectives on school health promotion in general (What types of information do you think is important for students at the elementary level to learn about health promotion?), and after each person was given the time and respect to thoroughly respond, I quickly realized that I had prepared too many questions, and because of our limited time of approximately one hour during lunchtime, I made the decision to focus mainly on gathering their perspectives specifically around question three (see Appendix 8). Question three focused on current challenges and solutions with regards to current school health promotion efforts.

This proved to be a good decision, and as the Talking Circle progressed, rather than each person speak one at a time, in turn, around the table, it became more of a discussion. After transcribing and coding the Talking Circle transcription, data findings were organized, and categorized according to four main themes:

THEME 1: CULTURE-BASED SCHOOL HEALTH PROMOTION MODEL

Those who participated in the Talking Circle came to consensus that first and foremost, the school health promotion model should be grounded in Haudenosaunee/Kanien'kehá:ka teachings. For example, teachings based on principles of The Creation Story, Ohénton Karihwatéhkhwen, and the Cycle of Ceremonies along with many other cultural understandings of Kaianera'kowa, and the three food sisters, Tionhéhkwen. According to participants, many of

which are already being taught and role modeled within our schools system, these teachings and can be integrated into the 11-month school calendar.

Quotes from Talking Circle Participants (April 2016):

> "So it comes from a cultural perspective, it's a cultural grounding in the Ohenton Karihwatékhwen, Kaianere'kowa, those principles and values that are embedded within, they're about living a good life and what is around that."
>
> "It's instilling in them the value of our ways and knowing that if people had gardens and they were to share, you're not having as much of those cases where people are going to bed hungry."

Two participants talked about bringing positive teachings and perspectives to life such as myths and legends that ground us from a strength-based approach, for example one participant talked about changing the title of health prevention workers to health promoters, one participant commented, "…it's not about disease prevention, but health promotion, and coming from that Indigenous perspective." Developing a culture-based school health promotion would be a unique model which could be made adaptable to other Indigenous communities interested in following Kahnawà:ke's lead.

Figure 17. Haudenosaunee Ceremonial Cycle of Ceremonies

It was acknowledge by participants that while each school is structured differently, much of our culture has been instilled in our students at home, within the Longhouse cycle of ceremonies, and within our daycare system. For example, one Talking Circle participant made an interesting point that many students entering into Karonhianónhnha Tsi ionterihwaiensthákwa and Kateri School schools have already acquired a strong cultural foundation from the Step by Step Child and Family Center. Step by Step is Kahnawà:ke's inclusive early intervention program open to all Kahnawà:ke children between the ages of 12 months to 6 years of age. It was founded on the principles of Kanien'kehá:ka values which supports families in their child's physical, cognitive, and social-emotional development based on our culture and traditions (http://www.stepxstep.ca/who-we-are.htm). A Talking Circle participant further explains:

> "I'm looking at what's been done at Step by Step, our feeder of the school basically. I feel that they provide them with regards to knowing who they are, Kanien'kehá:ka, they're learning about the three sisters, and a lot of their culture comes from there, that component at the school…but that's the thought that came to my head, is that we're building on Step by Step and this is what we do here with regards to trying to keep up that information...."

THEME 2: HEALTH & WELLNESS TOPICS

Because many health and wellness activities already occur within the schools, there were many suggestions discussed in terms of health and wellness topics which could be organized first by gathering an inventory of current health promotion activities within the schools which is a starting point for developing a pilot project. Based on the data gather in this inquiry, along with suggested topics, the inventory list could look something like the following:

Table 9. Example school inventory of health promotion activities

Example of school inventory of health promotion activities (11 month school calendar)				
Month	**Cycle of Ceremonies**	**School Calendar of Events**	**School Physical Activities**	**Community Organization Interventions**
August	Green Corn Ceremony	Orientation		School Safety
September		Orientation Grandparents' Day		Kahnawà:ke Youth Center Mohawk Miles
October	Harvest Ceremonies Fall Okiweh			Fire Prevention/safety Halloween Safety
November/ Diabetes Awareness Month		Diabetes Awareness Month Remembrance Day		Vision screening, dental hygiene
December	Mid-Winter Ceremonies	Christmas Break		Christmas Break
January				
February	Maple Tree, Maple Syrup Ceremonies	Tsi Nionkwarihó:ten Kaienterehston Cultural Awareness Staff Appreciation Day	Winter Carnival	Winter Carnival
March		March Break St. Patrick's Day		
April/Cultural Awareness Month	Thunder Dance Spring Okiweh	Ribbon Shirt Days (each Friday) Easter		KSDPP Sadie's Walk
May	Seed, Planting, Medicine Ceremonies	Mother's Day Two-Row Wampum Day		KSDPP Mother's Day Walk
June	Strawberry	Father's Day	Racer's For Health	Racer's For Health

	Ceremony		Invitational Run Track & field days	

The contents of table 7 would have to be expanded upon through a coordinated and strategized effort by the Kahnawà:ke Education Center and community organizations already delivering school health promotion in the two schools. Other school health promotion health and wellness topics suggested by Talking Circle participants included:

- Using a wholistic perspective of mind, body and spirit
- Human body (functions & processes, parts, cardiovascular/digestive/immune/respiratory/reproductive systems, etc.)
- Emotions/behavioral health
- Infections/diseases and conditions
- Personal health (fitness, hygiene, nutrition)
- Safety
- Structured, theme-based health curriculum provided by experts collaborating with classroom teachers
- Food security
- Life skills
- Hands on learning (ie- planning and planting gardens)
- Suicide prevention
- Daily exercise & practice activities outside of physical education class

One participant suggested that,

> "I think we could probably have this enormous think thank within the school system of just talking about social determinants of health and how that impacts on health promotion within the schools. And teachers and administrators looking at that, you could probably come up with some really fascinating recommendations and some ideas of how to start addressing these kinds of things to the kids…we can then all map it up so then we all know what each other is doing so that we can complement one another, and not ending up in a competition."

THEME 3: COMMUNITY ENGAGEMENT

Talking Circle participants agreed that a collective community approach was needed, yet it is a huge endeavour to undertake by one small group, such as the Schools Wellness Committee.

While the Schools Wellness Committee, which is coordinated by KSDPP, previously offered to facilitate the process, due to recent shortage of funding, do not have the physical and human resources to carry out the project alone, therefore it must be a community effort. Partnering and developing cooperative, collaborative relations with public services organizations is essential to make the model successful. Possible organizations could include:

- Kahnawà:ke Education Center/schools/Kahnawà:ke Combined Schools Committee
- Kahnawà:ke Schools Diabetes Prevention Project
- Kateri Memorial Hospital Centre
- Kahnawà:ke Shakotiia'takéhnhas Community Services
- Kahnawà:ke Fire Brigade
- Kahnawà:ke Peacekeepers
- Mohawk Council of Kahnawà:ke

As suggested many times previously, it was again proposed that an essential factor to success is to first obtain 'buy-in' from the Kahnawà:ke Combined Schools Committee, the Kahnawà:ke Education Center, each school, In-Schools Committees, parents, and students. This could be done through a formal presentation, as a follow up to the previous presentation when the idea was introduced to the Kahnawà:ke Education Center in December, 2015. It was agreed among Talking Circle participants, to first pilot the model in one grade at either, or both elementary schools.

THEME 4: CONSIDERATIONS OF DEVELOPING THE MODEL

According to Talking Circle participants, some factors to consider when developing a school health promotion model: differences in school structures, 'starting small' -- for example begin with a pilot project in one grade at either/or both schools, funding sources, professional development training, similar programming at Step by Step Child & Family Center, emotional/social/physical/mental health and wellness, "it's important for kids to learn how to

cope with their feelings," remarked one participant. Other topics that could be included in school are life-skills, hands-on teachings and school gardening projects. One participant explains:

> "What we started [at one of the schools] through the Kanien'kéha program, is that [mention's teacher's name], is very active in regards to wanting a garden, she found ways to get it going, and through connections, we have been in touch with [says community member's name] and the community garden initiative last year…we [staff and students]went in the fall, we went to help pick the corn."
>
> (participant, Talking Circle, April, 2016)

Finally, one suggestion that arose during the Talking Circle was that communication is key to successful collaborative relationships between community organizations, as one participant provided examples of instances where communication breakdown occurs between different public service organizations within the community.

SUMMARY

This chapter began with a description of the pre-research process undertaken in this study that is aligned with an Indigenous research framework and necessary when respecting local research protocols. This delicate process offers insights into considering the extra time that is needed for research conducted in an Indigenous community, and required as a step to build upon relationships with community stakeholders and to offer transparency to community members who still attach stigma to any type of research. This is especially true for 'insider' researchers who continue to live and work in the community after a research project has been completed.

"Research should be action-oriented so that it can contribute to us solving our own issues" (Datta, 2017). The same applies to a community-based participatory research approach. While, the carrying out of the data collection phases reiterated much of what has already been

uncovered during actual evaluation of the KMHC HEP for Diabetes Prevention from 2012-2013, the findings presented in this chapter provide a more in-depth examination of what is required to take this study to action should that be the case. What had not been taken into consideration during the 2012-2013 evaluation project was the perspectives of the youth, again offering more insights into what they have learned and what they would like to learn.

Based on the findings of this study, the next chapter provides a discussion on the following factors to be considered for building a school health promotion model: Administrative and management support; dedicated time and resources; stakeholder ownership and participation; voice of the youth; champions & leaders at all levels; community readiness; and change comes with challenges.

CHAPTER 5: DISCUSSION

This study sought to understand how building a culture-based health promotion model for elementary students can be realized for elementary students at Karonhianónhnha Tsi ionterihwaiensthákwa and Kateri Schools in Kahnawà:ke. In doing so, stakeholders, including students, provided rich information through their perceptions of ongoing health promotion efforts within the schools; what is needed to occur should a school health promotion model be developed; and what is needed to be accomplished in terms of building collaboration among multiple public service organizations within the community.

The case study effectively provided baseline information that set the contextual background, particularly around the KMHC HEP for Diabetes Prevention report's recommendation on the possibility of developing a comprehensive school health promotion program for elementary students in both of the elementary schools under the Kahnawà:ke Education System. Similarly to what Cheryl Whitman and Carmen Aldinger (2006) found in their examination of 26 case studies of applying the HPS concept from around the globe, this study uncovered many influencing factors which illustrates methods and strategies used to put such a model, or concept into practice. Based on the results from this study, the factors below address the sub-research question: How can we as a community collaboratively work together or build a culture-based school health promotion for elementary students at Kateri School and Karonhianónhnha Tsi ionterihwaiensthákwa schools?

Before a discussion on influencing factors to be considered for a school health promotion model, I first turn to addressing how this study contributes to furthering the discourse on Indigenous research methodologies and what colonization has come to mean for me throughout this research

journey. Based on the guidance from Indigenous academics who attempt to articulate an Indigenous research frameworks (Chilisa, 2012; Smith, 2012; Kovach, 2009; Wilson, 2008; Cajete; 2000) and others, I, mother, grandmother, wolf clan family member, and citizen of the Haudenosaunee, have shared some of the traditional teachings that ground and guide my research. For instance, I view Kaswéntha and the philosophy of the Seventh Generation as theoretical and methodological foundations and metaphors for respectfully working together to benefit the generations that I will not get to meet. This includes ensuring that I adhere to local constructs and guiding principles set forth in KSDPP's Research Code of Ethics. Further, as other researchers articulate (Delormier, Horn-Miller, McComber, & Marquis, 2017; Smylie, Olding, & Zeigler, 2014; Ermine, 2006), sharing what we know about a good life is an opportunity, our responsibility, and is foundational for participating in research that is meaningful to our communities. Applying an Indigenous research framework through a Haudenosaunee lens from an insider's perspective for me means ensuring that accountability is built into the relationships formed with research participants. As Shawn Wilson (2008, p. 127) explains, "There should be no need for us to constantly justify, validate or change our work in order to fit foreign research paradigms." Focusing on solving problems from a strength-based approach (NCCAH, 2010) helps us to seek solutions through collaborative and consensus-building approaches, as is the case within CBPR.

I made the earlier assumption that CBPR is a way of decolonizing research. Decolonization consists of an ongoing process that exposes and challenges colonialist power (Darroch, & Giles, 2014). This study demonstrates that through privileging our distinct decision-making processes, and creating a safe and ethical space to work from, whether inside a community or through partnerships with an academic institution, CBPR has become a tool to "expose the ways in which

power inequities are perpetrated" (Darroch & Giles; 2014). Participatory research, Indigenous knowledge translation and integrated knowledge translation have commonalities creating meaningful research projects, opportunities to properly disseminate research results to community, building rusting relationships, and working together. CBPR is decolonizing because it is also a way to co-construct knowledge in an equitable way. At the same time, CBPR, as Cajete (NCCAH, 2010) also explains, advances the decolonizing process through the building intellectual bridges between our own research paradigms and that of Westerns constructs of research. As there are certainly varying definitions of Indigenizing Indigenous health research, we do our best to translate our knowledge and share our understandings with the larger research world. Drawing on Paulo Freire (1970)'s *Pedagogy of the Oppressed*, Freire further developed action research and influenced participatory action research by calling for change in education and production of knowledge (Darroch & Giles, 2014), another good example of CBPR as decolonization. Also stated earlier, Chilisa (2012, p. 13) views participatory research as centering the concerns and worldview as the colonized Other so that we can better understand ourselves through our own assumptions and perspectives. I also established in this study the importance of reflexivity by stating my positionality, as a form of decolonization, by supporting the values of participatory research which helps to destabilize power imbalances.

Continuing with the discussion on developing a school health promotion model, based on the literature and responses from research participants, the following factors ought to be considered.

Administrative and Management Support

Given that many studies have shown a strong link between education and health, research also shows that administrative support is an essential element and factor of success of a HPS concept

(Whitman, & Aldinger, 2006). Developing a strategic plan can provide administrative and management support for carrying out goals and objectives has been recognized as a way to formalize this concept (Whitmen, & Aldinger, 2006). According to Deschesnes, Martin, and Hill (2003), very little is known about the *way* to effectively implement a comprehensive HPS, or about how it affects youth health. Evidence from the case study of the evaluation of the KMHC HEP for Diabetes Prevention, and from health and school administrators who participated in this study tells us that this has been recognized as an important factor of success. According to participants, administrative support first requires buy-in and support from the Kahnawà:ke Combined Schools Committee and the Kahnawà:ke Education Center. Participants in both the case study and during interviews and Talking Circles believe that ongoing professional development is required, as well as the continued support from KSDPP and other health related organizations in the community.

For both KMHC and KEC, the main environmental factors currently affecting both organizations are major change. The KEC is currently in the midst of carrying out its new strategic plan, for example, a Kanien'kehá:ka Curriculum Developer has been hired to strengthen its curriculum from a Kanien'kehá:ka perspective, as well as strengthening school, parent, family, and community partnerships. The KMHC's current priority is its expansion and major renovation project. A school health promotion model requires management and maintenance for sustainability, and as suggested by participants, it could be led by the KSDPP Schools Wellness Committee, which requires dedicated time and resources.

Dedicated Time and Resources

Drawing from case studies from Australia, USA, and Canada, Whitman and Aldinger (2006) illustrate the importance of dedication and the sharing of human and financial sources, which include resource materials and tools. For example, having a dedicated coordinator to oversee the process in Australia included someone there to provide the support needed to assist teachers and clinicians. Financial resources can be tapped into from a variety of different sources including federal, provincial and local government, donors, and in some cases in-kind contributions from local public services organizations, which without they say, could not have made initiatives as successful. Canada reports that the Heart Health Partnership Funding has provided support for its Healthy School initiative in a meaningful way. As well, grants are usually contingent on strong partners across sectors. As reported by study participants, Kahnawà:ke has a wealth of human resources and technical expertise who already dedicate much of their time and resources at the schools. Technical expertise is enhanced by providing professional development, and by securing and strengthening community partnerships. Again, this has already been recognized within the community, so it is hoped that evidence from this study will not only add to the dialogue and discourse on developing a school health promotion model, but will also be shared with the community as a starting point. In terms of materials and resources, implementers of school health promotion in Kahnawà:ke generally agree that guidelines, curricula and training materials, protocols for assessment, planning, monitoring and evaluation are easily accessible through a variety of sources, including the internet. In addition to teaching materials, some case studies from Whitman and Aldinger (2006) include the development and use of advocacy materials such as newsletters, brochures, and leaflets that can be used to assist in parental involvement.

Stakeholder Ownership and Participation

"A powerful feature of the HPS concept is the participation of teachers, family, community members, and students themselves in the design and implementation" of a school health promotion model (Whitman & Aldinger, 2006, p. 51). This was discussed at length both during the evaluation of the KMHC HEP for Diabetes Prevention, as well as during this study. Macridis and Salsberg (2014) for example (see p. 53), report that without community engagement and ownership, programs have a lesser chance of achieving traction. A health administrator (see p. 108) talked about the importance of community champions who played a huge role in taking ownership of the KMHC HEP for Diabetes Prevention, which contributed to much of its success in the earlier years of its implementation. When parents and local authorities commit time and resources, and community involvement is strong, it increases the success factors that positively impact the school environment. While the broad community involvement is important, teachers require ongoing training and management support. According to Whitman and Aldinger (2006, p. 52), "one of the key points is to involve pupils more in the process of developing a good and healthy school." They provide positive examples from Kenya, Bahrain, India where students were involved in the planning and adoption of a HPS, and where participatory classroom activities resulted in children taking personal actions to manage their health. For example, in Kenya, students took action to manage their health by burning and selling charcoal to get money to buy shoes in order to be neat as well as to avoid hookworm infection (2006, p. 53).

Voice of the youth

Stakeholder participation should include levels of participation from the youth. This was one of the reasons I felt it was important to gather the perspectives from students during this study. It is

important to include the youth in planning and development as we can learn a lot from them, this is part of our culture. The Haudenosaunee value the voice of the youth. One example that I can provide that has been described by Tom Shakokweniónkwas Porter (2008) in his book *And Grandma said…Iroquois teachings as pass down through the oral tradition,* is about leadership. When choosing a leader within the Haudenosaunee Confederacy, leaders are chosen by the women, because they are the holders of the clan names in our society and who pass the clan matrilineally to their children. Children are observed by the women throughout their lives, and as they mature to the age of becoming leaders, the women, who have monitored the children 'put up', or suggest who they feel has the qualities of a leader -- rather than through a voting process based on popularity. That being said, many children in Kahnawà:ke are raised to 'speak out', and to voice their concerns from a very young age. During the PhotoVoice Project, students took the initiative to ask their teachers if they could write a letter to the school cafeteria manager to provide healthier food choices.

Champions & Leaders at all Levels

Individuals who strongly support and advocate for a program are often named as 'champions'. Mention of past and current champions occurred throughout this study. Leadership comes in different forms though, whether it is from government, key individuals in health and education, youth, principals, teachers, and community leaders. Leadership can also be described in terms of experimentation, strategic development, and establishment, and according to Whitman & Aldinger (2006, p. 54), in the Scotland case study, for example, leadership is seen as an act that does not progress in a simple linear way:

> "It is now recognized…that educational reform frequently includes unpredictable shifts and fragmented initiatives. It would be misleading to

> suggest that progress usually occurs in a simple linear way and in steady increments. Progress is, of course, highly political: Rapid progress is theoretically possible when a strong political will exists; when the political priorities change, the process can stall or go into reverse."

That being said, leaders can be identified across different levels, not necessarily from the leader of a school, health or political organization. Within Kahnawà:ke then, it can be said that 'champions' who are leading the way to school health promotion efforts are entire organizations such as KSDPP, the education system, the KMHC, and KSCS. Individual champions are those who are passionate about school health promotion within our schools and who are continuously driven to 'walk the talk', and by strong proponents and role models for a healthy education community. As champions, children are just as important as adults, especially because they will grow to become our future leaders.

Community Readiness

A community's readiness to mobilise around a health issue can impact upon a program's success (Kostadinov et al, 2015). For example, low levels of readiness could result in intervention staff facing significant challenges in the absence of local support, lack of resources (Kostadinov et al, 2015), or lack of communication between local organizations. It has been well established during this study that many ongoing health promotion efforts are certainly being implemented through our schools, although not to the extent that it could be named as a 'model'. As well, it has been found within the literature and among participants that health and health promotion is already embedded within cultural understandings of the Haudenosaunee, and other Indigenous peoples. For example, as one elder stated in chapter 2 which I will repeat here:

> "Wellness and education are intertwined, we depended on a cycle of ceremonies that coincided with our diet, this was our education, it is taught

> through the language…of course contemporary education systems are not the same, but it [education] has to be a way of life. If you are Kanien'kehá:ka [Mohawk], you are healthy, it's all in our thinking, our Indigenous mind told us to take care of Mother Earth." (December, 2016).

In a recent study on assessing community readiness among key stakeholders for health promotion efforts relating to school-based interventions aimed at promoting youth physical activity and reducing childhood obesity, the results indicated the importance of assessing school readiness prior to interventions (Ehlers, Huberty, & Beseler, 2013). This of course, would require another study, although the readiness to implement change to policy or practice depends on a variety of conditions influenced by the factors described in this chapter. Similar to what Whitman & Aldinger (2006) have found, the uniqueness of each community organization, situation, coupled with existing understandings and revitalization of language and culture, offers many challenges to the assessment and readiness of any implementation process. Research also suggests that strategic planning, preparation, and the organizational readiness depends on several factors such as the level of motivation among staff and the entire community, as well as the availability of resources and support (Whitman & Aldinger, 2006; Simpson, 2002; McKee et al., 2000). By carefully weighing all of these concerns, readiness may be something worth assessing. As well, overall motivation and buy-in, first from the Kahnawà:ke education system, and if cross-sector collaboration can be strengthened, the model could be considered for Kahnawà:ke.

Change Comes with Challenges

The readiness of the community to implement change, or to up-scale school health promotion in is contingent on many factors. During this study, participants provided an array of existing strengths to current health promotion efforts in the schools. They have also provided much information in terms of challenges and recommendations. Table 8 provides a summary of

strengths and challenges to building a school health promotion model followed by a list of recommendations.

Table 10. Facilitators and barriers to building a culture-based school health promotion model

Strengths	*Challenges*
• Already embedded in schools and in culture • Resources, materials, tools easily available online • Diabetes education has evolved to broader health topics • Positive shift in overall community awareness • "We have a community health plan" • Existing support from KSDPP, KMHC, KSCS, Cultural Center • Phys. Ed. Teachers currently doing phenomenal job • KSDPP is up to date on current health trends (food security, sleep, gardening, physical activity, overall wellness) • KSDPP known as a community-wide resource for health related school materials • Existing community/organizational champions	• Who will take the lead in this collaborative effort? • Funding (coordinating/management, professional development, translation to Kanien'kéha and French) • Food security • School cafeterias operate as small businesses (high costs of food) • Shift in parenting (busy schedules) • Different teaching styles • Structural differences in different schools • Competing interests for students' time • Professional development/training of teachers

In this study, recommendations provided by health professionals, school professionals and grade 5 and 6 students of Kahnawake include the following:

1. Buy-in from Kahnawà:ke Combined Schools Committee & Kahnawà:ke Education Center;
2. Improve upon collaboration and partnerships across organizational sectors;
3. Conduct a needs assessment with built-in evaluation mechanisms;
4. "Enhance what already exists";
5. Pilot and assess/evaluate;
6. Engage parents and the community;
7. Include professional development and ongoing training for teachers;
8. Could be extended to other community schools & schools outside community;
9. Student participation in planning.

Buy-in, as described in this study involves participation from KCSC and KEC. According to the education system's structure (see figure #1, pages 25-26), because KEC and KCSC receive direction from the community as a whole, the support of the community would be a key factor to

the success of building a school health promotion model. Cross-sector communication among different local organizations within the community adds another layer of support through support and coordination with experts in the field. It has also been suggested to conduct a need assessment where a person or persons could be delegated or contracted to coordinate such an endeavor. Many strengths or facilitators have been identified including the existing cultural appropriateness of current school health promotion, the existence of a community health plan, how KSDPP is recognized as one of the driving forces to consistently educate the community on current health trends since 1994, and of course the importance of community champions who advocate for programs and are keen on participating or volunteering for the many efforts by the school and community organizations to educate school children about health and wellness. Grade 5 and 6 students made several recommendations from increased programming, improvements to food choices in their cafeterias, and more hands on activities such as planting and gardening. Engaging students in the planning of school health promotion at school can also add validity to school health promotion.

Should the Kahnawake education system decide that building a coordinated approach to school health promotion is feasible, key challenges would be securing funding and to decide on who or what organization would lead the effort. If funding is secured for a pilot project, according to one example cited in Whitman & Aldinger (2006, p. 43) regarding pilot funding in Australia, it was found that while government departments tend to fund pilot projects, these types of projects are funded on short-term cycles which does not always guarantee sustainable long-term funding. Other challenges to consider is the structural differences in both of the schools and school cafeterias operating as small businesses resulting in high costs of healthier food choices for students.

SUMMARY

To summarize, I outlined and provided evidence of how the literature and data collected in this study speaks to an Indigenous research framework beginning placing value and validity to Indigenous knowledge systems and philosophies. I also outlined my argument the tenets of CBPR as contributing to the decolonization process in the context of research. For many Indigenous researchers, research is ceremony (Wilson, 2008). Expressions of youth through PhotoVoice helps to fill the gap in existing literature around school health promotion.

Given that the KEC has been undergoing much change and grown within the past two to three years, including increased federal funding, renovations, and expansion of its physical facilities, bringing this culture-based school health promotion model to the attention of management, parents, and other stakeholder community organizations in the health and education sector requires buy-in. Fortunately, there does exist champions and leaders at all levels within the schools and community organizations, yet this task would likely require a full-time staff person to coordinate this effort as curriculum development is not included as part of a teacher's job description, although many teachers are doing the best they can. As mentioned earlier in this study, although there is a plethora of resources readily available for adaptation, extra time is needed to culturally adapt such a model to suit the needs of the community. In addressing this study's research sub-question about how students perceive school health promotion and what they have learned, the voice of the youth is also an important consideration in this study. According to Roy and Seabrooke (2016), the voice of youth in health engagement in health promotion research is lacking and has been identified as a gap in current literature, specifically around developing strategic approaches from their perspectives.

School health promotion models involve strengthening the partnerships of health services of schools. For example, principals are much more willing to agree to become involved in a new program if they know that it is supported by management, and that they will be supported with resources. Finally, within the field of public health, data driven information helps to identify and address health issues. This study provides a unique data set that informs what could be considered for building a school health promotion model.

The next and final chapter represents my reflections and final thoughts. This has provided me the opportunity to close this portion of this study. It adds to the positionality and reflexivity which is a necessary component of an Indigenous research framework. As I opened this dissertation with my greetings, this is my way of closing it.

CHAPTER 6: REFLECTIONS AND FINAL THOUGHTS

> "It is important to create the knowledge, but it is what's done with that knowledge that is really important at the end of the day."
>
> (Estey, E., Kmetic, A., Reading, J., 2010)

My doctoral research was conceptualized within an Indigenous research framework rooted in Haudenosaunee ways of knowing. I have demonstrated that a CBPR approach is an effective way to gather the perspectives of community stakeholders around building a culture-based school health promotion model for elementary schools under the umbrella of the Kahnawà:ke Education Center. The success of this research is measured by stakeholders' response to the case study of the evaluation of the KMHC HEP for Diabetes Prevention. Stakeholders shared a number of environmental factors to be considered should the community decide to create such a model which include: administrative and management support, dedicated time and resources, stakeholder ownership and participation, listening to the voice of the students, honoring champions and leaders at all levels, and gauging if the Kahnawà:ke education system is ready for such an endeavor. It is the belief of stakeholders that in order for a school health promotion model to be successful, buy-in from the Kahnawà:ke Combined Schools Committee and Kahnawà:ke Education Center would be the most important element.

Although this study did not progress to the anticipated stage of creating a pilot school health promotion model, it is my perspective that this study can provide a starting point. The future steps are to return this information to the Kahnawà:ke Education Center to determine whether or not a pilot health promotion model could be developed, implemented, and assessed. The findings support the hypothesis that understanding local Indigenous process of knowledge creation,

dissemination, and utilization of findings is a necessary prerequisite to effect knowledge translation in an Indigenous context.

REFLECTIONS

Postcolonial Indigenous scholarship is grounded in Indigenous theory and experience partly designed to add to the dialogue about sharing perspectives through the lens of our worldview. For the Haudenosaunee, 'extending the rafters', or 'adding to the rafters' is a term that meant adding on to the Longhouse, "both in the literal sense of making room for new families, and in the figurative sense of adding adopted individuals or tribes to the League of the Five Nations." (Foster, Campisi & Mithun, 1984). This concept serves as a metaphor from the Haudenosaunee tradition of building good relations. Drawing on the work of Seneca scholar David Newhouse (2003, 2008) from his experiences within the academy at Trent University, Newhouse uses, Kaswéntha and 'adding to the rafters' as a metaphor for extending and building ethical relations within the academy to "help us consider how we might extend our traditional practices to our scholarly endeavors." (2008, p. 185). "Through the process of decolonization, we as Indigenous peoples come to the table with something of value to offer to the world. This something has come to be called Indigenous knowledge (2008, p. 187)."

Combined with the valuable knowledge from the contributions of Willie Ermine (1995, 2000, 2007, Eber Hampton (2007), and Gregory Cajete (1999, 2000), I add to the dialogue about creating conceptual space to accommodate multiple Western research methods in my research. As stated earlier, this is not to reject Western theories or methods, but rather to find ways to bridge two worldviews together for a better understanding of each other. Participatory research, CIHR's Integrated KT, and Indigenous KT, are effective when understandings of health and

well-being are present, and are reflective local geography (Estey et al., 2009). Indigenous approaches to KT results in better processes and outcomes for Indigenous communities and provide rich learning for mainstream KT scholarship and practice (Smylie, Olding, & Ziegler, 2014). Integrated approaches accept that there are multiple ways of knowing and multiple sources of knowledge to draw from. Smylie, Olding, & Ziegler (2014) believe that professionals deeply engaged in KT ought to move towards theory and practice that embraces diverse understandings of knowledge. For example, when engaging in research projects with Indigenous peoples, Smylie, Olding, & Ziegler (2014) challenge researchers to critically reflect on who they are researching with, and asks if they can identify gaps and strategies to address, and what is relevant to the community in which they are working. What Indigenous theory and methods offer to the world is more than about choosing a topic, conducting the research and producing a journal article.

Several years ago, I had the opportunity to help facilitate community-based participatory workshops with PRAM (Participatory Research at McGill) and the KSDPP Research Team as part of McGill's summer program in social and cultural psychiatry. For three or four years, we delivered full-day workshops on how to conduct participatory research with Indigenous peoples. We began our workshops by asking participants to share their research topics and provide their rationale. What we found was that while many people have very interesting ideas for research projects, they had not been trained to develop projects that are beneficial to the Indigenous communities they are interested in conducting research with. One example I can draw from is the research topic of suicide amongst Indigenous peoples. After participating in our CBPR workshop, one participant was better able to understand that conducting this type of project could have more meaningful results in an Indigenous context if the project was designed together

with the community. This could be achieved by first developing a collaborative relationship, and asking what the community's needs are, as opposed to producing more negative statistics on this topic.

That said, from my perspective, one of the strengths of this research was gathering the voices of the youth. In fact, if given the chance to restart this project from the beginning, I would have gathered more data from the youth. The voices of our youth are important. Gregory Cajete believes that "education involves a constant flow of information and is multigenerational and cross-generational: young teach old; old teach young (2000, p. 101)," and that mentoring relationships between young and old are essential. He goes on to explain that an important aspect in Native children's learning was being provided opportunities and time to reflect. As examples, children were taught through experiential learning and participating in hands-on gardening. Cajete shared stories of spending time with his grandmother who instilled in him a special interest and a relationship with plants. Adult members of a child's extended clan family and nation played a direct role in educating a child into becoming a 'complete' person. Children learned the multiple roles of family, clan, plants, and animals, in accordance with the location of where they lived. The children after all, Cajete explains, "are the ultimate source of continuity for any culture (p. 102)."

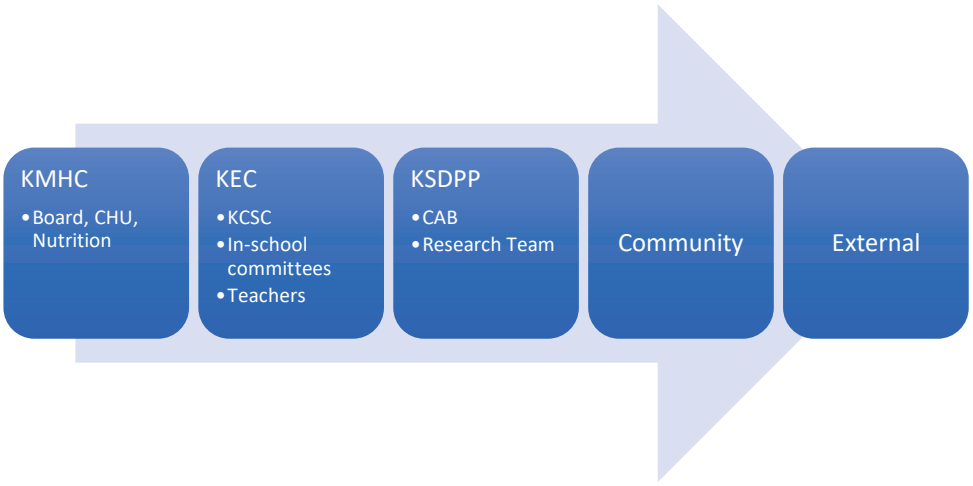
The Kahnawà:ke education system fosters the teachings of the Kanien'kehá:ka people. The culture and language is embedded in its curriculum. The most rewarding aspect of this study was working with the grade 5/6 students at both schools. The Kahnawà:ke school children's voices are an important factor of this research. Their perceptions, stories and suggestions reflect that of a strong people, who embrace their culture, and are being taught how to voice their concerns.

Pondering about implications for future research, I would like to see future projects include more voices of our youth.

FINAL THOUGHTS

My struggle with choosing from models, theories, paradigms, frameworks, and articulating them is evident within this dissertation which is a result from my slow acquisition of theoretical vocabularies and how to reconcile them with my own ideas was the most challenging aspect of this study. It is my hope that I was able to demonstrate how this research can be realized in practice in my community. Part of the participatory approach and knowledge to action process is co-creating and sharing the knowledge. In accordance with KSDPP's Code of Research Ethics, the next step of this study is the dissemination process. While I have presented research results soon after the completion of the data collection phase, I have yet to disseminate the full results of the study to the community, and externally. It is my hope that I will continue to work with the KSDPP Schools Wellness Committee to accomplish this task. Below is an example of the proposed next steps in sharing the information from this study.

Figure 18. Proposed dissemination/knowledge sharing activities



Finally, I am truly grateful for the stakeholders who willingly and openly shared their perspectives, and helped me to carry out this study. Looking towards a positive outcome, there are many powerful examples of ways in which education and health, working in collaboration, can make profound differences in the healthy development and learning of young people. KSDPP has been one of the main driving forces in carrying out its long-term goal of preventing type 2 diabetes and moves beyond preventing the disease by continually supporting our schools and the community at large.

Niá:wen, Thóniawennake.

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APPENDICES

Appendix 1: Letter of information 1 of 3

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Ennískа/February, 2016

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake

To: Kahnawawake Education Center (KEC), Kateri Memorial Hospital Centre (KMHC), Karonhianonhnha School, Kateri School, and Kahnawake Schools Diabetes Prevention Project (KSDPP)

Wa'tkwanonwerá:ton/Greetings:

Supported and approved by the Kahnawake Schools Diabetes Prevention Project's Community Advisory Board and the McGill University Research Ethics Board, you are invited to participate in a study by a doctoral student in the Department of Integrated Studies in Education of McGill University.

The purpose of this research is to better understand how health promotion is transmitted through the implementation of the Kateri Memorial Hospital Center's (KMHC) Health Education Program for Diabetes Prevention currently being delivered at both Karionhianonhnha and Kateri School. I'm interested in the program's success, if there is room for improvement in terms of its delivery and content. I am also interested in how community stakeholders interpreted and responded to recommendations from the evaluation of the program by the KSDPP Research Team in 2012.

One objective is to examine community stakeholders' (KMHC, KEC, KSDPP) interpretation and response to recommendations presented to them in a report (2012) entitled **"Evaluation of the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention".** The KMHC HEP was evaluated by a team of researchers from KSDPP and funded by the Aboriginal Diabetes Initiative Regional Evaluation and Innovation Fund. A secondary objective is to focus on how the KMHC plans to translate knowledge gained from the evaluation of the

KMHC HEP to its end users, Kahnawake's stakeholders. The third objective is to gain knowledge from elementary students around what they have learned from the program through a Photo Voice Project.

This study asks:
How is health promoted through the Kateri memorial Hospital Center's Health Education Program for Diabetes Prevention?

Information gathered from this study will be used as part of my doctoral research at McGill University and will be shared with the community of Kahnawake through the schools, the hospital, and KSDPP. This study will provide the researcher and the community of Kahnawake with knowledge that will be useful for the KMHC Health Education Program for Diabetes Prevention, which began in 1994. This research may also help to transfer knowledge to other Indigenous communities that have adapted and utilized the KMHC HEP for Diabetes Prevention since 1999. In the longer term, this research contributes to improved health outcomes for Indigenous peoples and can shed new light on the benefits of integrating Western research training with Indigenous knowledge paradigms using a community-based participatory approach from an 'insider' perspective.

Thank you very much for taking the time to consider participation in this study!
Niawen,

Morgan Phillips, PhD Candidate
McGill University, supervised by Dr. Steve Jordan
Department of Integrated Studies in Education
Tel.: 450-638-4377
e-mail: morgan.phillips@mail.mcgill.ca

Appendix 2: Letter of information 2

Integrated Studies in Education
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9, Enniskó:wa/March 9, 2016

Susan Horne, Executive Director
Kateri Memorial Hospital Centre
Kahnawake, QC J0L 1B0

Wa'tkwanonwerá:ton/Greetings:

Supported and approved by the Kahnawake Schools Diabetes Prevention Project's (KSDPP) Community Advisory Board, the Kahnawake Combined Schools Committee, and the McGill University Research Ethics Board, your organization is being asked to participate in a study by a doctoral student in the Department of Integrated Studies in Education of McGill University.

Title of research project:
Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake

As part of my doctoral research, the purpose of this research is to better understand how health promotion is transmitted through the implementation of the Kateri Memorial Hospital Center's (KMHC) Health Education Program for Diabetes Prevention currently being delivered at both Karionhianonhnha and Kateri School. I'm interested in how community stakeholders interpreted and responded to recommendations from the 2012 evaluation of the program by the KSDPP Research Team.

The data collection phase of my research is currently taking place in three phases: 1) individual interviews with stakeholders from KMHC, the Kahnawake Education Center, and KSDPP; 2) Conducting a PHOTOVOICE project with students from both Karonhianonhnha and Kateri School; and 3) Conducting a Talking Circle with interested participants from the Kahnawake Schools Wellness Committee which is facilitated by KSDPP. Information gathered from this study will be used as part of my doctoral research at McGill University and will be shared with the community of Kahnawake through the schools, the hospital, and KSDPP.

At your convenience, I would like to schedule an interview with you to discuss your perspectives on the future of the program, as well as your views on the current plan of the Kahnawake

Schools Wellness Committee to develop a **Theme-Based Framework for Health Education** in the schools. To date I have interviewed Dawn-Montour Lazare, Dawn Lazare, Gina Delaronde and Chantal Haddad of the KMHC. I'm happy to answer any questions you may have prior to the interview and can send you the questions beforehand. The taped interview will last between 30 and 60 minutes.

Niawen!

Morgan Phillips, MA, PhD Candidate
Department of Integrated Studies in Education (D.I.S.E.)
McGill University
Tel.: 450-638-4377
e-mail: morgan.phillips@mail.mcgill.ca

Appendix 3: Letter of invitation to parents

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INVITATION FOR YOUR CHILD TO PARTICIPATE IN A RESEARCH PROJECT

Date: 08, Onerahtohko:wa/April 08, 2016

From: Morgan Phillips
PhD Student, McGill University
Department of Integrated Studies in Education

Project: **Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake**

Dear Grade 5/6 Parents/Guardians:

This is an invitation for your child to participate in a PHOTOVOICE project that is part of my doctoral research. This project has been approved by the Kahnawake Combined Schools Committee, the Kahnawake Schools Diabetes Prevention Project, and the McGill University Ethics Board.

The purpose of this project is to better understand how health promotion is transmitted through the implementation of the Kateri Memorial Hospital Center's (KMHC) Health Education Program for Diabetes Prevention currently being delivered at both Karionhianonhnha and Kateri School, and also to understand how health and wellness is promoted in general at both schools.

One of my objectives is to gain knowledge from elementary students through a PHOTOVOICE project. Photovoice is a method of data collection where participants take pictures and 'give voice' to their pictures through the sharing of their photos. This type of research is often used in the fields of community development, public health, and education.

Grade 5/6 students will take pictures around their school, and as a group we will then interpret the pictures. Students will have the opportunity to give their input about how the Health Education Program for Diabetes Prevention, and other health related topics, are taught at school.

If you agree for your child to participate in this Photovoice project, please sign the attached consent form, and have your child sign as well. I would be happy to answer any questions you may have about this project. I will be working with Karihwenhawi Kane, the grade 3-6 health teacher, who is also available to answer any questions you may have.

Thank you very much for taking the time to consider participation in this study!

Niawen!

Morgan Phillips
Tel.: 450-638-4377
e-mail: morgan.phillips@mail.mcgill.ca

Appendix 4: Consent form - adults

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ADULT PARTICIPANT CONSENT FORM

Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake

Researcher: Morgan Phillips, Principal Investigator, PhD Candidate, McGill University, Department of Integrated Studies in Education. Tel. 450-638-4377, e-mail: morgan.phillips@mail.mcgill.ca

Supervisor: Dr. Steven Jordan, McGill University, Department of Integrated Studies in Education. Tel.: 514-398-8025, e-mail: steve.jordan@mcgill.ca

Title of Project: Renewing the Kateri Memorial Hospital Center Health Education Program for Diabetes Prevention for elementary students in Kahnawake.

Sponsors: Anisnabe Kekendazone – Network for Environments for Aboriginal health (AK-NEAHR); Indspire – Building Brighter Futures Bursary

Purpose of Study: This research is being conducted to better understand how health promotion is: 1) transmitted in Kahnawake through the implementation of the Kateri Memorial Hospital Center's (KMHC) Health Education Program (HEP) for Diabetes Prevention at Karionhianonhnha and Kateri School; and 2) How health is generally promoted through elementary schools under the KEC. I'm interested in the program's success and if there is room for improvement in terms of its delivery and content. I am also interested in how community stakeholders interpreted and responded to recommendations from the evaluation of the program by the KSDPP Research Team (2012).

Study Procedures: The data collection portion of this study is taking place within Kahnawake. This study's main question asks: **How is health promoted through the Kateri Memorial Hospital Center's Health Education Program for Diabetes Prevention?** This study involves a 30-60 minute digitally taped interview with those involved in the program's delivery (KMHC, KEC, KSDPP). The data collection phase of this project will take place between December, 2015 and February, 2016. Information

gathered from this study will be used as part of my doctoral research at McGill University and will be shared with the community of Kahnawake through the schools, the hospital, and KSDPP.

Voluntary Participation/withdrawal: It is important to note that your participation is voluntary and you have the right to withdraw from the study at any time without prejudice of any kind.

Benefit/Risk: The information gathered from this study will provide the researcher and the community of Kahnawake with knowledge that will be useful for the KMHC Health Education Program for Diabetes Prevention, which began in 1994, and possibly for other Indigenous communities who have purchased the program. There is no known risk for participating in this study. You are free to respond to questions according to your own comfort. If you find that the interview stirs up any difficult thoughts, you are not obliged to answer or respond to the question.

Confidentiality: Digitally recorded interviews will be transcribed by the researcher and given a code number so that your identity will remain confidential. The recordings and transcripts will be kept on the researcher's computer and password protected. Access to interview transcripts is limited to the principal investigator (Morgan Phillips) and those KSDPP and study staff members who have a legitimate reason to do so in order to accomplish the study's goals.

I HAVE READ THE ABOVE INFORMATION AND HEREBY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY IN THE FOLLOWING MANNER (√):

Digitally recorded individual interview (maximum 1 hour) Yes ____ No ____

Questions: The researcher (Morgan Phillips) will be happy to answer any questions you might have concerning this study.

If you have any ethical concerns or complaints about your participation in this study, and want to speak with someone not on the research team, please contact the McGill Ethics Manager at 514-398-6831 or lynda.mcneil@mcgill.ca

Please sign below if you have read the above information and consent to participate in this study. Agreeing to participate in this study does not waive any of your rights or release the researchers from their responsibilities. A copy of this consent form will be given to you and the researcher will keep a copy.

PARTICIPANT'S NAME (please print):_____

PARTICIPANT'S SIGNATURE: _____

DATE: _____

Appendix 5: Adult consent form – Talking Circle

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ADULT PARTICIPANT CONSENT FORM – Talking Circle

Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake

Researcher: Morgan Phillips, Principal Investigator, PhD Candidate, McGill University, Department of Integrated Studies in Education. Tel. 450-638-4377, e-mail: morgan.phillips@mail.mcgill.ca

Supervisor: Dr. Steven Jordan, McGill University, Department of Integrated Studies in Education. Tel.: 514-398-8025, e-mail: steve.jordan@mcgill.ca

Title of Project: Renewing the Kateri Memorial Hospital Center Health Education Program for Diabetes Prevention for elementary students in Kahnawake.

Sponsors: Anisnabe Kekendazone – Network for Environments for Aboriginal health (AK-NEAHR); Indspire – Building Brighter Futures Bursary

Purpose of Study: This research is being conducted to better understand how health promotion is: 1) transmitted in Kahnawake through the implementation of the Kateri Memorial Hospital Center's (KMHC) Health Education Program (HEP) for Diabetes Prevention at Karionhianonhnha and Kateri School; and 2) How health promotion in the schools can be improved upon through the Schools Wellness Committee's plans on developing a theme-based framework for health education within the schools?

Study Procedures: The data collection portion of this study is taking place within Kahnawake. This study involves a 30-60 minute digitally recorded Talking Circle with those involved with health promotion in Kahnawake's elementary schools. The data collection phase of this project will take place between December, 2015 and April, 2016. Information gathered from this study will be used as part of my doctoral research at McGill University and will be shared with the community of Kahnawake through the schools, the hospital, and KSDPP.

Voluntary Participation/withdrawal: It is important to note that your participation is

voluntary and you have the right to withdraw from the study at any time without prejudice of any kind.

Benefit/Risk: The information gathered from this study will provide the researcher and the community of Kahnawake with knowledge that will be useful for the KMHC Health Education Program for Diabetes Prevention, which began in 1994, and possibly for other Indigenous communities who have purchased the program. There is no known risk for participating in this study. You are free to respond to questions according to your own comfort. If you find that the interview stirs up any difficult thoughts, you are not obliged to answer or respond to the question.

Confidentiality: Digitally recorded interviews will be transcribed by the researcher and given a code number so that your identity will remain confidential. The recordings and transcripts will be kept on the researcher's computer and password protected. Access to interview transcripts is limited to the principal investigator (Morgan Phillips) and those KSDPP and study staff members who have a legitimate reason to do so in order to accomplish the study's goals.

I HAVE READ THE ABOVE INFORMATION AND HEREBY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY IN THE FOLLOWING MANNER (√):

Digitally recorded Talking Circle (maximum 1 hour) Yes ____ No ____

Questions: The researcher (Morgan Phillips) will be happy to answer any questions you might have concerning this study.

If you have any ethical concerns or complaints about your participation in this study, and want to speak with someone not on the research team, please contact the McGill Ethics Manager at 514-398-6831 or lynda.mcneil@mcgill.ca

Please sign below if you have read the above information and consent to participate in this study. Agreeing to participate in this study does not waive any of your rights or release the researchers from their responsibilities. A copy of this consent form will be given to you and the researcher will keep a copy.

PARTICIPANT'S NAME (please print):_____

PARTICIPANT'S SIGNATURE: _____

DATE: _____

Appendix 6: Parental consent form & student/child assent form PhotoVoice Project

Integrated Studies in Education
Faculty of Education
McGill University
3700 McTavish Street
Montreal, Quebec, Canada
H3A 1Y2

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Faculté des sciences de l'éducation
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Parental Consent Form & Student/Child Assent for Photovoice Project

Researcher: Morgan Phillips, Principal Investigator, PhD Candidate, McGill University, Department of Integrated Studies in Education. Tel. 450-638-4377, e-mail: morgan.phillips@mail.mcgill.ca

Supervisor: Dr. Steven Jordan, McGill University, Department of Integrated Studies in Education. Tel.: 514-398-8025, e-mail: steve.jordan@mcgill.ca

Title of Project: Renewing the Kateri Memorial Hospital Center Health Education Program for Diabetes Prevention for elementary students in Kahnawake.

Sponsors: Anisnabe Kekendazone – Network for Environments for Aboriginal health (AK-NEAHR); Indspire – Building Brighter Futures Bursary

Purpose of Study: This is an invitation for your child to participate in a research study. This research is being conducted to better understand how health promotion is transmitted through the implementation of the Kateri Memorial Hospital Center's (KMHC) Health Education Program for Diabetes Prevention currently being delivered at both Karionhianonhnha and Kateri School. I am interested to learn from your child how well he or she may have benefited from the program, or from other health related school teachings.

Study Procedures: Grade 5/6 students will first be provided an explanation of the project. Using school cameras, students will then take digital pictures around their school answering the question: **How does your school promote health and wellness?** Once the pictures are taken and organized into files, as a group we will choose the most appropriate pictures, discuss students' pictures, and then come up with a caption for each picture that will 'give voice' to the picture through the students. Once all the pictures are chosen, and captions are provided for each picture, a visual presentation of the project will be created. A copy will be left for the school to keep.

Voluntary Participation/withdrawal: It is important to note that your child's participation is voluntary and that he or she has the right to withdraw from the study at any time without prejudice of any kind.

Benefit/Risk: The information gathered from this study will provide the researcher and the community of Kahnawake with knowledge that will be useful for the KMHC Health Education

Program for Diabetes Prevention, which began in 1994, and possibly for other Indigenous communities who have purchased the program. There is no known risk for participating in this study. Your child is free to participate according to his/her own comfort.

Confidentiality: The researcher will produce a Photovoice project, which will include pictures with students' captions. The researcher will keep a record of the identity of each child's captions , therefore no names will appear on the photo captions.

Questions: The researcher (Morgan Phillips) will be happy to answer any questions you might have concerning this study.

If you have any ethical concerns or complaints about your child's participation in this study, and want to speak with someone not on the research team, please contact the McGill Ethics Manager at 514-398-6831 or lynda.mcneil@mcgill.ca. You can also speak to Judi Jacobs at the Kahnawake Schools Diabetes Prevention Project at 450-635-4374.

Please sign below if you have read the above information and consent for your child to participate in this study. Agreeing to participate in this study does not waive any of your rights or release the researchers from their responsibilities. A copy of this consent form will be given to you and the researcher will keep a copy.

PARENTAL CONSENT

AS A PARENT/GUARDIAN, I HAVE READ THE ABOVE INFORMATION AND HEREBY GIVE MY CONSENT FOR MY CHILD PARTICIPATE IN THIS STUDY IN THE FOLLOWING MANNER (√):

PHOTOVOICE PROJECT: Yes ____ No _____

Name of child (please print): _____
Name of parent/guardian: _____
Parent/guardian signature: _____
Date: _____

STUDENT/CHILD ASSENT

AS A STUDENT, I HAVE READ THE ABOVE INFORMATION AND HEREBY GIVE MY ASSENT TO PARTICIPATE IN THIS STUDY IN THE FOLLOWING MANNER (√):

PHOTOVOICE PROJECT: Yes___ No___

Student signature: _____

Date: _____

Appendix 7: Individual interview questions – adult stakeholders

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www.mcgill.ca/education

INDIVIDUAL INTERVIEW GUIDE

Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake

Preface:
Thank you for agreeing to do this individual interview. The purpose of this interview is to gain knowledge about: 1) how health is promoted through the KMHC's Health Education Program for Diabetes Prevention at Karonhianonhnha and Kateri School in Kahnawake; and 2) how health is promoted in general within the elementary schools under the umbrella of the Kahnawake Education Center.

From 1994-1997 the KMHC developed and implemented the KMHC HEP for Diabetes prevention for two elementary schools in Kahnawake and has been supported by both KMHC and KSDPP. It has since been delivered to Kateri School and Karonhianonhnha School, under the direction of the KEC and the Kahnawake Combined Schools Committee.

In 2012 a team of evaluators from KSDPP, through funding from the Aboriginal Diabetes Initiative Funding, evaluated the curriculum, produced a report and disseminated the results and recommendations to all of its stakeholders (KMHC, KEC, KSDPP). Since then, a Wellness Committee has been formed and is currently planning on developing an overall comprehensive health promotion model for elementary students.

1. Can you tell me a little bit about yourself (background, training, projects, etc.)?

2. How is health promoted within Karonhianonhnha and Kateri Schools?

    a. In your opinion, how does school health promotion impact or affect our students?

3. What do you think is needed to improve overall health promotion within our schools?

4. What do you know about the KMHC Health Education Program for Diabetes Prevention?

5. How have you been involved with the HEP (experiences, examples, challenges, successes)?

6. What are your views on the program?
    a. In terms of content (update materials, cultural appropriateness, methodology, other
    b. In terms of the current delivery of the curriculum (methods, time, environment, organizational structures)
    c. In your opinion, has the program has been effective for students?

7. Have you read the Final Report: Evaluation of the Kateri Memorial Centre Health Education Program for Diabetes Prevention? (or are you familiar with the reported recommendations?)

8. In your view, and in general, what has been your organization's response the Final Report: Evaluation of the Kateri memorial Hospital Centre Health Education Program for Diabetes Prevention? (what has been done?)

    a. Are you aware of any plans for your organization to make changes to the curriculum or revive the program? (please explain)

9. In your opinion, what do you think is needed to happen to renew or revive the KHMC HEP for Diabetes Prevention? (or overall health promotion)

10. Are you aware of the Wellness Committee and its current plans to work towards developing an overall comprehensive health promotion model for its elementary schools?

    a. What do you think about that?

11. What are your views on extending a Kahnawake health promotion model to other schools in the community and perhaps other communities?

12. Is there anything else you would like to add?

This concludes the interview. Thank you very much for taking the time to participate. If you have anything further to add, please feel free to contact me! As well, as this study progresses, I may contact you again before February, 2016 with some follow up questions.

Niawen!

McGill

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TALKING CIRCLE GUIDE

Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake

Introduction:

- Introduce yourself before you begin the Talking Circle.
- Have participants go through consent form and sign it.
- Explain Talking Circle protocol.
- Lunch is served.

The purpose of this Talking Circle is to gather your thoughts and ideas about the KMHC Health Education Program for Diabetes Prevention; health promotion at both Karonhianonhianonhnha and Kateri Schools; and the Schools Wellness Committee's plan to develop a theme-based framework for health education with both schools.

As part of my graduate research, I recently conducted individual interviews with different stakeholders within the 2 schools, KSDPP and the KMHC around the existing KMHC HEP for Diabetes Prevention, and the Schools Wellness Committee's plans to plan and develop a theme-based framework for health education within the two schools. From those discussions, I have highlighted some key findings that stood out. These points will be focused on in our discussion today. This will allow for a deeper understanding and meaning of the findings.

I would like to remind all participants that all data will remain strictly confidential. This Talking Circle will be digitally recorded. During transcription, participant names will be replaced with a pseudonym that only the researcher will be able to link back to you.

A. YOUR VIEWS ABOUT HEALTH PROMOTION

Preface: These first questions are about your thoughts on health promotion in the two schools.

1. What types of information do you think is important for students at the elementary level to learn about health promotion?

2. It has been identified in both the 2012 Final Report of the Evaluation of the KMHC HEP for Diabetes Prevention that many changes have occurred within the schools that has had an impact on how the

curriculum is now being implemented such as: change in staff and administration, less support from KSDPP, lack of time. It has also been identified that the over the years, "it's become more than about diabetes prevention". What are some new topics/themes/trends that have emerged over the years that could be included in a new health promotion model for the schools?

3. What are some of the challenges that Kateri and Karonhianonhnha schools face in their current efforts to promote healthy living in the schools? Can you think of any solutions to address these challenges?

B. YOUR VIEWS ON THE SCHOOLS WELLNESS COMMITTEE AND ITS PLAN AND DEVELOP A THEME-BASED FRAMEWORK FOR HEALTH EDUCATION WITHIN THE TWO SCHOOLS.

Preface: The next questions are about The Schools Wellness Committee's plans to develop a theme-based framework for health education within the schools.

4. While everyone has agreed that it is a good idea, there are common challenges that have been brought out during the individual interviews. What are your thoughts on the following challenges:

    - Different school structures (i.e.- health teachers and time slots)
    - School cafeterias (Wellness Nutrition Policy difficult to enforce because cafeterias operate as small businesses)

5. How do you see KSDPP and the Schools Wellness Committee as the facilitator of a process to make a theme-based framework for health education within the schools a reality (i.e.- what are some strategies that can be used to help facilitate the process?)

C. YOUR VIEWS ON BUILDING COLLABORATION AND PARTNERSHIPS

Preface: It has been suggested by many participants to work towards a more coordinated effort between different community health promoters towards developing health promotion within our schools, and to get more buy-in from the community and families?

6. How can we (schools, organizations, Schools Wellness Committee) encourage collaboration and between organizations?
7. How can we encourage collaboration from parents/families and the community?

D. SUGGESTIONS FROM PARTICIPANTS

Preface: During the individual interviews, there have been many important suggestions that have been made. I have highlighted some of the common suggestions and would like your further opinions.

- Pilot a theme-based framework for health education in either one school, or one grade for the first year.
- Increase a more culture-based curriculum
- Conduct a needs assessment

Conclusion: This concludes the Talking Circle. Thank you very much for taking the time to participate in this study. If you have anything else to add, please feel free to say it now, or you can contact me at a later date.

Appendix 9: PhotoVoice Project Karonhianonónhnha Tsi ionterihwaienstáhkwa – teacher handout

PHOTOVOICE PROJECT 1 (Karonhianonhnha)
March, 2016
Morgan Phillips, PhD Candidate, McGill University

Photovoice Objective: *To give students an outlet to express their views on what they have learned about health and wellness in and around school, and to get their ideas on what they would like to learn about health and wellnesss, and the prevention of type 2 diabetes.*

Session 1: Discuss what health and wellness is and introduce what photovoice is to grade 5 and 6 students (approx. 16 students)

- Meet students; bring healthy snacks (ask Chantal for suggestions) – fruit and veggie platter (cucumbers, carrots, celery, pineapple, berries, cheese?). 10:30am – 11:40am. Do any students have food allergies?
- Introduce myself
- Have students introduce themselves
- Talk about health and wellness, what does it mean?
- Explain how important it is for their voices to be heard through their pictures.
- Brainstorm with students about what types of the health program that they enjoy, introduce the question:
    - What do you know about health and wellness?
    - What have you learned about diabetes and the prevention of it?
    - What have you learned at school about health and wellness and the prevention of type 2 diabetes?
    - What would you like to learn about health and wellness?
- Distribute information letter and consent form

Session 2: Return to classroom. Recap what the project is about and the importance of gathering the voices of students on the topic of health, wellness and the prevention of type 2 diabetes. Hand out cameras. Go into the school and schoolyard with students while they take pictures.

- Karihwenhawi has agreed to go with them an additional time, during another class, to take more pictures.
- Karihwenhawi will transfer digital photos onto the computer.
- Arrange for pictures to be printed

Session 3: Return to classroom.

- Distribute and view printed pictures with students, discuss with students (break up into groups)
- Have students choose 4-5 pictures in each group
- Have students create captions for each photo

Session 4: Talking circle. Return to classroom.

- In groups, moderator will lead discussion surrounding the captioned pictures.
- Discuss with students

Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment

Caroline Wang, DrPH
Department of Health Behavior and Health Education at the University of Michigan School of Public Health
Mary Ann Burris, PhD
Office for Eastern and Southern Africa at the Ford Foundation in Nairobi, Kenya

Abstract

Photovoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique. As a practice based in the production of knowledge, photovoice has three main goals: (1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs, and (3) to reach policymakers. Applying photovoice to public health promotion, the authors describe the methodology and analyze its value for participatory needs assessment. They discuss the development of the photovoice concept, advantages and disadvantages, key elements, participatory analysis, materials and resources, and implications for practice.

Appendix 10: PhotoVoice Project Kateri School - teacher handout

PHOTOVOICE PROJECT (Kateri School)
April, 2016
Morgan Phillips, PhD Candidate, McGill University

PHOTOVOICE Project Objective: *To give students an outlet through pictures to express their views on what they have learned about health and wellness in and around school, and to get their ideas on what they would like to learn about health and wellnesss, and the prevention of type 2 diabetes.*

Activity 1: Discuss what health and wellness is and introduce PHOTOVOICE to grade 5 and 6 students

- Meet students; bring healthy snacks (ask if students have any food allergies)
- Introduce myself
- Have students introduce themselves
- Talk about health and wellness, what does it mean? Also diabetes.
- Explain the importance of hearing their perspectives and how it can be done through pictures
- Brainstorm with students about what types of the health program that they enjoy, introduce the questions:
    - What do you know about health and wellness?
    - What have you learned about diabetes and the prevention of it?
    - What have you learned at school about health and wellness and the prevention of type 2 diabetes?
    - What would you like to learn about health and wellness?
    - Is there anything within the school that prevents them from being healthy and well?
- Distribute information letter and consent form

Activity 2: Once consent forms have been signed and returned to the school, return to classroom. Recap what the project is about and the importance of gathering the voices of students on the topic of health, wellness and the prevention of type 2 diabetes.

- Hand out school cameras/iPads.
- Distribute Student Instructions to be used as a guideline when taking pictures
- Go into the school and schoolyard with students while they take pictures.
- Working the teacher, arrange for pictures to be downloaded on a single USB or a single computer/iPad

Activity 3: Return to classroom.

- In groups, have students choose 4-5 pictures in each group
- Have students create captions for each photo based on previous handout (Student Instructions)
- Organize photos and captions to be presented back to students for next activity

Activity 4: Talking circle. Return to classroom.

- In groups or as a class, moderator will lead discussion surrounding the captioned pictures.
- Discuss with students. Session will be digitally recorded.

Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment

Caroline Wang, DrPH
Department of Health Behavior and Health Education at the University of Michigan School of Public Health
Mary Ann Burris, PhD
Office for Eastern and Southern Africa at the Ford Foundation in Nairobi, Kenya

Abstract

Photovoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique. As a practice based in the production of knowledge, photovoice has three main goals: (1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs, and (3) to reach policymakers. Applying photovoice to public health promotion, the authors describe the methodology and analyze its value for participatory needs assessment. They discuss the development of the photovoice concept, advantages and disadvantages, key elements, participatory analysis, materials and resources, and implications for practice.

Appendix 11: Interpretive session questions – Karonhianónonhnha Tsi ionterihwaienstáhkwa

Renewing the Kateri Memorial Hospital Center Health Education Program for Diabetes Prevention for elementary students in Kahnawake

Karonhianonhnha - Photovoice 4: Talking Circle with Grade 5/6s
Date: May 10, 2016

Photovoice Objective: *To give students an outlet to express their views on what they have learned about health and wellness in and around school, and to get their ideas on what they would like to learn about health and wellnesss, and the prevention of type 2 diabetes.*

Activity 4: Talking Circle

Introduction*: We're here today because we have been taking part in a photovoice project to try and collect some information about your thoughts about being healthy and well, and preventing type 2 diabetes.*

Thank you very much for being here, it is nice to see you all again. We're at the part of the project where we will discuss the photos and what you wrote about them. Before we start we need to talk about a few rules. Only one person may speak at a time. This is very important as we are recording this conversation on tape to make sure we remember all the important things you have to say here today. People may have different opinions on some things we talk about. This is fine because there are no right or wrong answers. We would like to hear from everyone. I want to remind everyone that we will not be using your names in anything we write about this discussion. Any questions before we start?

[Start recording]

Pictures: Thank you for taking all the pictures, a job well done. I'd like to spend a little time talking about some of the pictures you've taken, and the captions that you've created. I've grouped the pictures into different topics. We'll go through the different groups of pictures, and

Topic 1: Food, water

Topic 2: Physical activity in and around the school

Topic 3: Planting trees, respect, staying in school

This project was about being healthy and well, and understanding what you learn about this at school. Is there anything else that you would like to add about:

- What you would like to learn?
- Is there anything that stops you here at school from being healthy and well?
- Do you share what you learn at school with your family when you get home? How?

Appendix 12: PhotoVoice student instructions Karonhianónonhnha Tsi ionterihwaienstáhkwa

Grade 5/6 Karonhianonhnha Photovoice Project – March/April, 2016

SHARING YOUR VOICE ABOUT HEALTH AND WELLNESS THROUGH PICTURES!

Here are some questions you can use to help you with ideas…

What things in and around the school remind me of what I have learned about preventing type 2 diabetes?

What things in the school building, classroom and schoolyard remind me of being healthy and well?

Is there anything in the school building, classroom and schoolyard that stop me from being healthy and well?

What would I like to learn about being healthy and well?

Don't worry about taking too many pictures, we will delete unwanted ones together as a group!

Appendix 13: PhotoVoice Project interpretive session questions Kateri School

Renewing the Kateri Memorial Hospital Center Health Education Program for Diabetes Prevention for elementary students in Kahnawake

Kateri School - Photovoice 4: Talking Circle with Grade 5/6s
Date: June 1, 2016

Photovoice Objective: *To give students an outlet to express their views on what they have learned about health and wellness in and around school, and to get their ideas on what they would like to learn about health and wellnesss, and the prevention of type 2 diabetes.*

Activity 4: Interpretive Session

Introduction*: We're here today because we have been taking part in a photovoice project to try and collect some information about your thoughts about being healthy and well, and preventing type 2 diabetes.*

Thank you very much for being here, it is nice to see you all again. We're at the part of the project where we will discuss the photos and what you wrote about them. Before we start we need to talk about a few rules. Only one person may speak at a time. This is very important as we are recording this conversation on tape to make sure we remember all the important things you have to say here today. People may have different opinions on some things we talk about. This is fine because there are no right or wrong answers. We would like to hear from everyone. I want to remind everyone that we will not be using your names in anything we write about this discussion. Any questions before we start?

[Start recording]

Pictures: Thank you for taking all the pictures, a job well done. I'd like to spend a little time talking about some of the pictures you've taken, and the captions that you've created. I've grouped the pictures into different topics. We'll go through the different groups of pictures and have a discussion.

Topic 1: Facilitators to being active: Exercise, playing around the school. What are some of the things at school that you like about being able to exercise and play together outside? Can you think of anything that stops you from being active here at the school?

Topic 1: Things around the school (garden pictures, reading/library). Some of you took pictures of things inside the school, like someone reading in the library, and pictures of garden paintings on the walls. Is there anything that you learn in school about gardening? Are you learning enough about gardening and planting vegetables? What do you learn at school about gardening?

Topic 3: Preventing Diabetes: Some of you mentioned in your captions about preventing diabetes? What have you learned at school about diabetes and the prevention of it? Does anyone remember their teachers teaching about diabetes prevention? Do you remember the program?

Topic 3: Cafeteria food: Some of you took pictures of food in the cafeteria and made comments about healthy and non-healthy food at your cafeteria? Is there anything that you would like to add or take away from the cafeteria?

Topic 4: Water. Some of you mentioned that water is healthy, both for drinking, being hydrated, and washing your hands. Who teaches about these topics at the school?

This project was about being healthy and well, and understanding what you learn about this at school. Is there anything else that you would like to add about:

- Do you think your school provides a space for you to be healthy and well?
- What you would like to learn?
- Is there anything that stops you here at school from being healthy and well?
- Do you share what you learn at school with your family when you get home? How?

Appendix 14: Photovoice student instructions Kateri School

KATERI SCHOOL Photovoice Project – March/April, 2016

SHARING YOUR VOICE ABOUT HEALTH AND WELLNESS THROUGH PICTURES!

Here are some questions you can use to help you with ideas…

What things in and around the school remind me of what I have learned about preventing type 2 diabetes?

What things in the school building, classroom and schoolyard remind me of being healthy and well?

Is there anything in the school building, classroom and schoolyard that stop me from being healthy and well?

What would I like to learn about being healthy and well?

Don't worry about taking too many pictures, we will delete unwanted ones together as a group!

Appendix 15: Certificate of approval – McGill University Research Ethics Board

McGill

Research Ethics Board Office
James Administration Bldg.
845 Sherbrooke Street West. Rm 429
Montreal, QC H3A 0G4

Tel: (514) 398-6831
Fax: (514) 398-4644
Website: www.mcgill.ca/research/researchers/compliance/human/

Research Ethics Board III
Certificate of Ethical Acceptability of Research Involving Humans

REB File #: 103-0815

Project Title: Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake

Principal Investigator: Morgan Phillips **Department:** Integrated Studies in Education

Status: Ph.D. student **Supervisor:** Prof. Steve Jordan

Co-investigator: Alex McComber, Kahnawake Schools Diabetes Prevention Project

Approval Period: October 15, 2015 – October 14, 2016

The REB-III reviewed and approved this project by delegated review in accordance with the requirements of the McGill University Policy on the Ethical Conduct of Research Involving Human Participants and the Tri-Council Policy Statement: Ethical Conduct For Research Involving Humans.

Lynda McNeil
Manager, Research Ethics

---

* All research involving human participants requires review on at least an annual basis. A Request for Renewal form should be submitted 2-3 weeks before the above expiry date. Research cannot be conducted without a current ethics approval.
* When a project has been completed or terminated, a Study Closure form must be submitted.
* Unanticipated issues that may increase the risk level to participants or that may have other ethical implications must be promptly reported to the REB. Serious adverse events experienced by a participant in conjunction with the research must be reported to the REB without delay.
* Modifications must be reviewed and approved by the REB before they can be implemented.
* The REB must be promptly notified of any new information that may affect the welfare or consent of participants.
* The REB must be notified of any suspension or cancellation imposed by a funding agency or regulatory body that is related to this project.
* The REB must be notified of any findings that may have ethical implications or may affect the decision of the REB.

Appendix 16: McGill University Ethics Review Closure Form

McGill University
ETHICS REVIEW
RENEWAL REQUEST/STUDY CLOSURE FORM

Continuing review of research involving humans requires, at a minimum, the submission of an annual status report to the REB. This form must be completed to request renewal of ethics approval. If a renewal is not received before the expiry date, the project is not considered to be approved and no further research activity may be conducted. When a project has been completed, this form can also be used to officially close the study. To avoid expired approvals and, in the case of funded projects, the freezing of funds, this form should be returned 2-3 weeks before the current approval expires.

REB File #:
Project Title:
Principal Investigator:
Email:
Faculty Supervisor (if PI is a student):

1. Were there any significant changes made to this research project that have any ethical implications that have not already been reported to the REB? ____YES __X__NO
   If yes, complete an amendment form indicating these changes and attach to this form.

2. Are there any ethical concerns that arose during the course of this research? ___ YES __X_ NO
   If yes, please describe.

3. Have any participants experienced any unanticipated issues or adverse events in connection with this research project? ___ YES __X_ NO
   If yes, please describe.

4. Is this a currently funded study? ___ YES __X_ NO

   If yes, list the agency name and project title and the Principal Investigator of the award if not yourself. This information is necessary to ensure compliance with agency requirements and that there is no interruption in funds.
   Anisnabe Kekendazone-Network Environment for Aboriginal Health Research (AK-NEAHR) Fellowship

5. Does this project require REB approval from another Institution/Board? ___YES ___ NO
   If yes, and the project is continuing, attach a copy of the current approval.

Principal Investigator Signature: _____ Date: Oct 14, 2016

Faculty Supervisor Signature: _____ Date: Oct 19, 2016
(if PI is a student)

__X__ Check here if the **study is to be closed** and continuing ethics approval is no longer required. A study can be closed when all data collection has been completed and there will be no further contact with participants.

____ Check here if this is a **request for renewal** of ethics approval.

For Administrative Use **REB:** ____REB-I ____REB-II _____REB-III

____ Delegated Review ____ Full Review

Signature of REB Chair or designate: _____ Date: _____

Approval Renewal Period: _____ to _____

Submit by email to lynda.mcneil@mcgill.ca. REB Office: James Administration Building, 845 Sherbrooke Street West suite 429, Mtl., QC H3A0G4; tel: 514-398-6831/6193; fax: 514-398-4644;www.mcgill.ca/research/researchers/compliance/human
(December 2014)

Appendix 17: Certificate of Approval – KSDPP Research Ethics Board

KAHNAWAKE SCHOOLS DIABETES PREVENTION PROJECT
Center for Research and Training
P.O. Box 989, Kahnawake Mohawk Territory
Quebec, Canada J0L 1B0

" Daily Physical Activity, Healthy Eating Habits & A Positive Attitude Can Prevent Diabetes "

Review and Approval Process for Ethically Responsible Research
Certificate of Approval

The Community Advisory Board of the Kahnawá:ke Schools Diabetes Prevention Project has granted approval:

For the Research Proposal Project entitled:

"Renewing the Kateri Memorial Hospital Centre Health Education Program for Diabetes Prevention for elementary students in Kahnawake"

Proposed by:

Name of Researcher: **Morgan Phillips, MA, PhD candidate**

Academic Supervisor: **Dr. Steve Jordan**

Department: **Integrated Studies in Education**

Institution: **McGill University**

Month and Date of CAB Approval: **July 22, 2015**

Confirmed by the CAB Executive Committee:

Signature: Eva Johnson

Name: **Eva Johnson, Chairperson, KSDPP Community Advisory Board**

Date: July 23rd, 2015

Administration Research Intervention Training
Phone: 450 635-4374 • 1-877-635-4374 • Fax: 450 635-7279
Web Site: www.ksdpp.org • Email: info@ksdpp.org