

First Nations children's experiences of a culture-based peer-mentoring program using  
photovoice

by

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## **ABSTRACT**

The Aboriginal/Indigenous Youth Mentorship Program (A/IYMP) is an after-school, peer-led, culturally framed intervention grounded in the teachings of Indigenous scholars Dr. Martin Brokenleg (Circle of Courage) and Dr. Verna Kirkness (Four R's Model). A/IYMP is a strengths-based intervention that aims to prevent type 2 diabetes in Indigenous children in Canada. The program is typically run as a 90-minute session that is offered once a week in the school community, and it provides elementary school students (mentees) with healthy snacks, physical activity, and relationship-building activities. High-school students (mentors), from the same community, plan and deliver the program to mentees while supported by a Young Adult Health Leader (YAHL). Mentees' experiences in the program are of primary significance and can be used to evaluate the program's overall impact. Therefore, the purpose of this study was to describe mentees' experiences in A/IYMP as a way of evaluating the impact that the program was having on their lives.

This study used a qualitative community-based participatory research design and photovoice as the main data-generating strategy. Two First Nations communities implementing the program in central Alberta participated in the study. Mentees received a disposable camera to capture their experiences at the program. The photographs were then used in one-on-one semi-structured interviews to stimulate conversation. In total, nineteen interviews were completed with mentees. Interviews were transcribed verbatim and analyzed using latent content analysis. Community members were engaged in the data interpretation process.

From the nineteen interviews conducted, one overarching theme, enjoyment of the program, was described. In addition, three other main themes emerged from the data: (1) building and strengthening relationships within the program, (2) instilling values and traditions of the program, and (3) working towards a healthy lifestyle. Overall, mentees

considered the program to be fun, and it helped them to build and strengthen relationships with mentors, family members, friends, and YAHLs. It also gave them the opportunity to exercise values and community traditions within the program such as respect and altruism. Finally, mentees described that through A/IYMP they were able to invest time in their physical health by means of playing games and eating healthy snacks.

The development of a photobook as an arts-based knowledge translation (ABKT) product for the research findings is described. The photobook included at least one photograph from each mentee that received a camera. Some of the challenges that were experienced in creating the photobook, such as the use of photographs of people, including children, are described. The intention is to distribute the photobook to mentees, A/IYMP staff, and other community members.

In conclusion, mentees' experiences of A/IYMP provided relevant feedback about the program's impact on their lives. Findings can be used by both community schools to further improve and to promote the program within their communities. We aspire to ripple the program to a greater number of Indigenous schools across Canada in the future. By honouring youth voices and sharing mentee's experiences broadly, these research findings could help to promote the rippling of A/IYMP.

## **PREFACE**

The project presented on this thesis is an original work produced by Maria Fernanda Torres Ruiz, and it represents one of several evaluations of the implementation of the Aboriginal/Indigenous Youth Mentorship program around Canada. The photovoice research project received ethics approval from the University of Alberta Human Research Ethics Board, under the project name "Expanding the Circle: A Peer-Led, Resilience-Based Model of Obesity and Diabetes Prevention for Indigenous Youth" No. Pro00069533 (original ethics obtained on January 5, 2017; renewed on December 3, 2018; renewal expired on December 2, 2019).

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## **LIST OF ABBREVIATIONS**

A/IYMP: Aboriginal/Indigenous Youth Mentorship Program

ABKT: Arts-based knowledge translation

APPLE Schools: A Project Promoting healthy Living for Everyone in Schools

ARC: Alexander Research Committee

BMI: Body Mass Index

BMI-Z score: Body Mass Index Z-score

CBPR: Community-based participatory research

CSH: Comprehensive School Health

J2W: Journey to Wellness

KSDPP: Kahnawake School Diabetes Prevention Program

KT: Knowledge Translation

OCAP®: Ownership, Control, Access, and Possession

PAR: Participatory action research

SLSDPP: Sandy Lake School Diabetes Prevention Program

T2D: Type 2 diabetes

YAHL: Young Adult Health Leader

## **1. INTRODUCTION**

Since the Ottawa Charter for Health Promotion was published in 1986, there has been a growing interest in developing health-promoting interventions that can help individuals and communities achieve wellness. The charter emphasizes the need for community settings to become the facilitators of knowledge and skills that can help individuals to support their health (World Health Organization, 1986). Following these recommendations, special focus has been placed on the school setting, as schools have the opportunity of reaching most children and adolescents for an extended period of their lifetime (Langford et al., 2015), and could potentially influence other community members such as school staff or student's family members. In addition, research has found there is a positive association between the health of students and their academic achievements (Basch, 2011; Rasberry et al., 2017). Therefore, by promoting student health, schools could also achieve their academic objectives.

There is diversity within the types of school-based interventions and strategies that have been developed to promote healthy behaviours among children and youth. However, the ones that utilize comprehensive approaches to health have proven to be more successful in achieving their objectives (Fung et al., 2012; Lee, Tsang, Lee, & To, 2003; World Health Organization, 2019). In Canada, the Comprehensive School Health framework is an evidence-based approach that has been internationally recognized to be a successful way of promoting health within school communities (Pan-Canadian Joint Consortium for School Health, 2018). The CSH framework aims to improve the health of students and other school community members through four inter-related components: 1) partnerships and services, 2) policy, 3) social and physical environments, and 4) teaching and learning (Pan-Canadian Joint Consortium for School Health, 2018). Schools utilizing the CSH framework use multiple strategies to address all four components of CSH, tailoring the approach to their school's needs and assets. One of the strategies that can be used by schools utilizing the CSH

framework is the use of mentoring programs, as they provide the opportunity of involving a diversity of community members in their planning, delivery, and evaluation (Morrison & Peterson, 2013).

A variety of mentoring programs aiming to instill healthy behaviours among children and youth have been described in the literature (Carpenter, Lyons, & Miller, 1985; McCallum et al., 2017; Smith, Rushing, & The Native STAND Curriculum Development Group, 2011). In addition to their alignment with the CSH framework, mentoring programs can be a culturally relevant and appropriate way of promoting health among Indigenous children and youth (Bisanz et al., 2003; Klinck et al., 2005). Although mentoring programs have the potential to be successful in Indigenous communities, in Canada, only two interventions delivered in the school setting have utilized this strategy to promote health and wellness among Indigenous children and youth. These are Healthy Buddies™- First Nations (Ronsley, Lee, Kuzeljevic, & Panagiotopoulos, 2013) and the Aboriginal/Indigenous Youth Mentorship Program (A/IYMP) (Eskicioglu et al., 2014).

### **1.1. Research rationale, purpose, and objectives**

A/IYMP is an after-school, peer-mentoring intervention that was first implemented in Canada in 2010. A/IYMP aims to reduce type 2 diabetes (T2D) risk factors in Indigenous children and youth through the promotion of physical activity, healthy eating, and communal relationship building. It was developed in Manitoba through a community-based participatory research (CBPR) project between the Garden Hill First Nation Community and researchers from the University of Manitoba. Since its inception, A/IYMP has been implemented in different Indigenous communities around Canada, now having 13 communities involved in the project that tailor and adapt the program to meet their unique needs.

The program is delivered to elementary school children (mentees) by high-school students (mentors). In addition, mentors are guided and supported by a Young Adult Health

Leader (YAHL), usually from the same community (Eskicioglu et al., 2014). The program typically consists of a 90-minute session delivered once a week. In every session, mentees receive a healthy snack, do physical activity through games and sports, and participate in activities that promote relationship building (Eskicioglu et al., 2014). A/IYMP uses a decolonizing approach; as such, it is grounded in two Indigenous models of wellbeing and education: the Circle of Courage (Brown, 2005) and the Four R's model of Indigenous learning (Kirkness & Barnhardt, 1991). Together, both models make up the theoretical framework of the intervention with the objective of promoting intellectual, spiritual, social, and physical health among mentees and their mentors.

A/IYMP was shown to have an impact in Garden Hill First Nation on reducing anthropometric risk factors associated with the onset of T2D (Eskicioglu et al., 2014). Although this program presented promising outcomes in its first evaluation, further research is needed to understand the potential impact it can have on Indigenous children's lives and wellbeing when implemented in a diversity of schools. Intervention outcomes can be evaluated in multiple ways (Judd, Frankish, & Moulton, 2001). Considering A/IYMP's decolonizing and CBPR approaches, communities' perspectives are a core component of the program's implementation and enhancement. In particular, participants' experiences need to be considered to determine the success of the intervention. Although the involvement of various stakeholders can be a meaningful way of determining the success of an intervention (Pierre, Receveur, Macaulay, & Montour, 2007), focusing on the main stakeholders' experiences could provide valuable insight about the program's outcomes. Therefore, the overall purpose of this study was to describe mentees' experiences in A/IYMP as a way of evaluating the impact the program was having on their lives. By using a community-based participatory research approach (CBPR) and qualitative inquiry, this study aimed to address two overall objectives:



1. To describe mentees' experiences in A/IYMP using an arts-based data generating strategy (photovoice).
2. To develop an arts-based knowledge translation (ABKT) product that could encompass mentees' experiences of A/IYMP as an innovative way of sharing study findings broadly.

## **1.2. Thesis outline**

Chapter two is a review of the literature, which provides an overview of the context and benefits of using CSH frameworks in Indigenous schools. Additionally, CSH interventions that have been implemented in Indigenous communities in Canada are described. A focus of this chapter is the use of mentoring programs as a strategy that can be used in CSH to promote and instill healthy behaviours in children. At the end of this chapter, a description of the development, implementation, evaluation, and rippling of A/IYMP is provided.

Chapter three of this thesis provides the reader with the researcher's positionality in research, and how her sense of conducting research with communities was changed by her participation in this project. Additionally, the research approach, paradigm, and theoretical perspective will be explained, centring in the appropriate ways of engaging in CBPR. Lastly, the ethical considerations that needed to be addressed before conducting this research are described.

Chapter four of this thesis presents the study conducted to address the first objective of this thesis. In this chapter, the methods followed by the researchers and community members are described, emphasizing the process of conducting photovoice with Indigenous children. Moreover, the research findings derived from mentees' photographs and their descriptions of their experiences in A/IYMP are presented and discussed from the perspective of their impact on mentees' wellbeing.

The fifth chapter addresses the second objective of this thesis. Through this chapter, the author will explain the process of developing a photobook as an arts-based knowledge translation product for disseminating findings broadly. In addition, some of the strengths and challenges of developing the photobook will be described, and some of the ethical considerations of taking photographs of people will be presented.

Finally, chapter six of this thesis provides a summary of the research findings and the contributions this research will make to the literature about peer-mentorship programs in schools. In addition, the author provides recommendations derived from the research process, findings, and challenges. The final part of this chapter offers future steps that could be taken given the findings from this body of work.

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## **2. LITERATURE REVIEW**

### **2.1. Comprehensive school health (CSH)**

Evidence suggests that the development of healthy habits begin in childhood (Franco, Sanz, Otero, Domínguez-Vila, & Caballero, 2010). As most children spend a considerable amount of time at school, schools are considered ideal settings for the implementation of programs and interventions that aim to promote healthy lifestyle behaviours among children (Langford et al., 2015). According to the World Health Organization (2019), schools have more responsibilities to their communities than just transmitting knowledge. Children spend a significant number of years attending school; therefore, schools can become settings where children can learn and apply behaviours that will have a beneficial effect on their wellbeing (Ferguson & Power, 2014). Furthermore, scientific evidence recognizes there is an important link between the health of students and their academic achievement, as healthier students tend to be better learners (Basch, 2011; Rasberry et al., 2017). Hence, the promotion of healthy habits is also a way for schools to achieve their academic roles.

In the past decades, many school-based interventions have proved helpful in improving students' health. Programs aiming to enhance students' consumption of healthy foods (Anderson et al., 2005; Fung et al., 2012), augmenting physical activity levels (Cradock et al., 2019; Donnelly et al., 2009), preventing tobacco use (Verma, Muddaiah, Krishna Murthy, & Sanga, 2015), and educating youth in evading sexual risky behaviours (Givaudan, Leenen, Van De Vijver, Poortinga, & Pick, 2008), have reported positive outcomes. From the vast number of school-based health-promoting interventions that exist, those ones that integrate the multiple components of health and that partner with numerous community members and organizations (Lee et al., 2003; World Health Organization, 2019), are both, more successful in achieving their objectives and sustainable (Rowling & Weist, 2004; Storey, Cunningham,

Spitters, Schwartz, & Veugelers, 2012). Taking a Comprehensive School Health (CSH) approach has been effective in many different settings.

CSH is an evidence-based approach for building healthy school communities (Pan-Canadian Joint Consortium for School Health, 2018). CSH is the term used in the Canadian context and is synonymous with the terms Health Promoting Schools and Whole School, Whole Community, Whole Child (WSCC), that have been used in other settings (International Union for Health Promotion and Education, 2009). CSH is an internationally recognized approach, known to improve students' educational outcomes while supporting their wellbeing (Alberta Health Services, 2017). School interventions utilizing a CSH approach consider the various components of health, adjust to the local context, and build partnerships with different community members and groups (Fung et al., 2012; Storey et al., 2016). They also include multiple activities, programs, and services that are conducted in the school and other community locations (Institute of Medicine Committee on Comprehensive School Health Programs in Grades K-12, 1997; Storey et al., 2016).

According to the Pan-Canadian Joint Consortium for School Health (2018), the CSH approach addresses four different inter-related components: 1) partnerships and services, 2) policy, 3) social and physical environments, and 4) teaching and learning. Schools should target all four components in order to support the school community in improving its health and to help them develop their potential (Pan-Canadian Joint Consortium for School Health, 2018). When CSH approaches are utilized, there is a need to establish collaborative relationships among a diversity of stakeholders at school, home, and community (Lewallen, Hunt, Potts-Datema, Zaza, & Giles, 2015; Roberts et al., 2016; Stolp, Wilkins, & Raine, 2015); by doing this, the success and sustainability of the interventions is better ensured (Rowling & Weist, 2004).

The CSH approach is flexible and allows schools to focus on their unique needs and priorities (Veugelers & Schwartz, 2010). By using the CSH approach, schools and communities

can target different health-related issues that concern them (World Health Organization, 2019). Also, due to this flexibility, schools can plan, implement, and evaluate CSH programs in a way that matches their specific needs and resources (Samdal & Rowling, 2011; Storey et al., 2016). Research has shown CSH to be an effective approach to achieve changes in children's health in a variety of areas such as nutrition (Fung et al., 2012), physical activity (Fung et al., 2012; Vander Ploeg, McGavock, Maximova, & Veugelers, 2014), smoking prevention (Hamilton, Cross, Resnicow, & Hall, 2005), or substance use prevention (Beets et al., 2009). The evidence suggests that children attending schools where CSH frameworks are being applied are more physically active, tend to have healthier weights, and have a better diet quality (Fung et al., 2012; Vander Ploeg et al., 2014; Veugelers & Fitzgerald, 2005).

CSH aims to build and sustain collaborative relationships among school, home, and community (Alberta Health Services, 2017). While improving students' health and academic success is one of its main objectives, it also attempts to promote health among the whole school community (i.e., school personnel, family members). To do this, CSH approaches look to involve school staff and other community members and work with them to change the whole school community environment (home, school, community) within all four components (Pan-Canadian Joint Consortium for School Health, 2018). When children attend schools where CSH approaches are implemented, the behaviours they acquire in the school setting could also be translated into their home environment (McKernan et al., 2019).

Some programs utilizing CSH approaches in Canada have been extensively evaluated. For example, A Project Promoting healthy Living for Everyone in Schools (APPLE Schools) is a school-based initiative that utilizes a CSH approach to instill and support healthy eating, physical activity, and mental health habits in the school community in four Canadian Provinces (APPLE Schools, 2019). This initiative has been recognized by the Public Health Agency of Canada to be a "best practice" for CSH implementation and by hundrED as one of the top 100 innovative educational innovations globally (hundrED, 2019). Its effectiveness and



sustainability has been widely proven through research (Ekwaru et al., 2017; Fung et al., 2012; McKernan et al., 2019; Roberts et al., 2016; Storey et al., 2012). Although reviews have been published regarding the effectiveness of CSH in different settings (Beaudoin, 2011; Langford et al., 2015; Thomas & Aggleton, 2016), there is still a need for evaluating these initiatives in the specific context of Indigenous communities.

## **2.2. Comprehensive school health approaches to address the health of Indigenous children**

CSH aims to improve students mental, emotional (Nielsen, Meilstrup, Nelausen, Koushede, & Holstein, 2015), and physical health (Fung et al., 2012), which are components that are also integrated in Indigenous concepts of wellness (Dapice, 2006; First Nations Health Authority, 2012). In this way, the CSH approach aligns with Indigenous world views, which see and promote health in a holistic manner (Reading & Wein, 2009). Besides this fact, taking a CSH approach means that interventions need to be tailored to the school and community's needs (Veugelers & Schwartz, 2010), which gives schools located in Indigenous communities the opportunity to address aspects of health that they are most interested in and that are relevant to the community. Indigenous communities implementing CSH approaches in their schools can also customize these interventions to include traditional practices and beliefs, allowing for more culturally appropriate projects that can be better suited to their unique environments (Tagalik, 2010). When interventions are tailored to the local beliefs and practices of local populations, they are more likely to be successful (Kumpfer, Magalhães, & Xie, 2012).

Different CSH interventions in Indigenous communities in Canada have been reported, and many of them have achieved success in their goals. Part of this success resides in the integration of traditional beliefs and practices into the intervention's planning, implementation, and evaluation processes (Eskicioglu et al., 2014; Macaulay et al., 1997;

Public Safety Canada, 2007; Saksvig et al., 2005). Although most of these interventions applied a holistic approach to health, they usually have a specific focus depending on the communities' interests.

### **2.2.1. CSH approaches for mental and emotional health**

Mental and emotional health are two different aspects of wellbeing that are so interconnected that an imbalance in one of them will have an impact on the other (Pyramid Healthcare, 2019). Due to this, most interventions that target mental or emotional health will usually influence both of them. In Canada, there are various examples of CSH interventions being delivered in Indigenous schools that have promoted mental and emotional wellbeing for students and their community. An example of this is Journey to Wellness (J2W), a school-based intervention for Indigenous youth that aims to support the development of healthy lifestyles while focussing on suicide prevention. In J2W, a facilitator visits the school during an eight-week period and engages Indigenous youth (between 12 to 18 years old) in weekly activities that promote relationship building, self-esteem, and problem-solving. In addition, students are informed about suicide prevention strategies (Cousins et al., 2010). This initiative utilizes a holistic approach to wellness to achieve its objectives, and it has been delivered successfully in six different First Nations communities. Even though not much research has been published regarding its outcomes, the initial report described significant retention of the program's key points by participants (Cousins et al., 2010). Although this report does not explicitly state that traditional knowledge and practices were included in the program, it does mention that part of the intervention's success was due to involving youth in the initial stages of the program's design (Cousins et al., 2010); this speaks to the relevance of involving stakeholders in the planning of interventions.

Other interventions that targeted student's mental and emotional health have employed traditional teachings and practices to instill healthy behaviours. By doing this, a sense of

belonging to the community is promoted (Pulla, 2014), which is important as it has been linked to enhanced mental and emotional health of Indigenous youth (Petrasek MacDonald, Ford, Cunsolo Willox, & Ross, 2013). When communities desire to integrate traditional knowledge and practices into their CSH approaches, they usually seek advice and participation from Elders and other traditional knowledge keepers in many or all stages of the project (Baydala et al., 2016, 2014). A great example of this is the Gwich'in Outdoor Classroom project, a culture-based crime prevention intervention that has been implemented in two different Indigenous schools from the Northwest Territories. This intervention was designed by the Gwich'in community and involved Elders in the project's planning and delivery. The intervention addressed various factors that put children and youth at risk of offending, such as difficulties in school, negative peer pressure, and limited social development (Public Safety Canada, 2007). The project included outdoor camps, in-school programming, and a breakfast program for at-risk students; additionally, various components of the project involved Gwich'in's community traditions, values, and customs. Although there is not much literature available about the evaluation of the intervention (Capobianco, 2006; Public Safety Canada, 2007), the participating schools reported a 20% increase in school attendance while the program was running compared to previous months when the program was not running (Capobianco, 2006). Additionally, teachers stated that children who attended the intervention, who had academic performance below the class average, did better academically after their participation in the project (Capobianco, 2006). This observation reinforces the relevance that school health promotion programs have in making students better learners. In addition to these teachers' reported outcomes, a recognized strength of the program was the involvement of Elders in the project, as they were the ones providing life skills training and traditional learning to students.

Other projects that have sought advice from community Elders in the planning and delivery of their interventions are the Maskwacis Life Skills Training (Baydala et al., 2016)

and the Nimi Icinohabi Program (Baydala et al., 2014). Both interventions are rooted in an evidence-based substance use prevention program called “Botvin Life Skills Training” (Botvin & Griffin, 2004). For these interventions, first, community members (including Elders) culturally adapted the Botvin Life Skills Training program and then, delivered and evaluated it in their own communities. Elders got involved in all stages of the intervention and both programs have reported encouraging outcomes (Baydala et al., 2016, 2014). As an example, the Maskwacis Life Skills Training intervention evaluation reported that student’s self-esteem and respectful attitudes were improved. In addition, students and teachers stated that the intervention has helped them to learn more about their community and their Indigenous culture. Moreover, during the evaluation process, Elders revealed that their participation in the intervention made them feel wanted and that they were contributing to their community in a meaningful way (Baydala et al., 2016). This intervention is an excellent example of how CSH interventions can impact the wellbeing of other community members aside from students.

Even though all these projects are great examples of CSH approaches for promoting mental and emotional health behaviours for Indigenous children, there is room for improvement regarding program evaluation. Most of these interventions have reported positive outcomes for students, yet, only one of them has included student’s perspectives about the intervention as part of their program evaluation process (Baydala et al., 2016). As students are the main recipients of these interventions, their experiences and perspectives are of utmost significance to determine an intervention's success (U.S. Department of Health and Human Services Centers for Disease Control and Prevention, 2011). In addition, most of these programs’ evaluations have not undergone rigorous peer-review, as most of them only reported their results in internal reports (that is, non-peer review grey literature) (Capobianco, 2006; Cousins et al., 2010; Public Safety Canada, 2007).

### **2.2.2. CSH approaches for physical health**

In Canada, as in many other parts of the world, Indigenous peoples have a high prevalence of chronic diseases (First Nations Information Governance Centre, 2018; Gracey & King, 2009; Willows, 2005). To counteract this high prevalence and to reduce the incidence of these conditions, several Indigenous communities have put in place different interventions that aim to prevent obesity and sedentarism (Kakekagumick et al., 2013; Macaulay et al., 2003), two components that are closely related to the development of non-communicable diseases (Gonzalez, Fuentes, & Marquez, 2017). As such, many of these interventions have focused on children and have used schools as their primary delivery setting. Furthermore, to include a greater number of community members and to achieve a more significant impact in their communities, some of these interventions have utilized CSH approaches. These interventions generally try to promote healthy habits related to nutrition and physical activity, and some of them have shown encouraging outcomes such as reducing students' consumption of sugary drinks (Glacken, 2011) and increasing their physical activity levels (Adams, Receveur, Mundt, Paradis, & Macaulay, 2005; Tomlin et al., 2012). In addition, most of these interventions have been community-driven and have integrated many Indigenous traditional practices and values in their design, delivery, and evaluation processes.

In the Canadian context, one of the most researched interventions is the Kahnawake School Diabetes Prevention Program (KSDPP) (Adams et al., 2005; Lévesque, Cargo, & Salsberg, 2004; Macaulay et al., 1997; Pierre et al., 2007). Kahnawake is on the south shore of the St Lawrence River 15 kilometres from downtown Montreal. Beginning in 1994 (Macaulay et al., 1997) and continuing to the present day (Tremblay, Martin, McComber, McGregor, & Macaulay, 2018), KSDPP is a community-driven project that aims to reduce T2D risk factors in Indigenous children through a holistic approach. KSDPP is composed of various elements such as health education, recreation and physical activity, community-based activities, and partnerships with multiple community organizations in order to support the development of

healthy habits in the school community. During the first years of implementation, KSDPP reported increases in the amount of physical activity for students (Adams et al., 2005). Although no significant changes on Body Mass Index (BMI) have been reported; since the program started, multiple changes in the community's environment have been accomplished, such as the construction of a cycling and walking path to promote physical activity within the community and the creation and implementation of a school nutrition policy (Paradis et al., 2005). Part of KSDPP's success is that it has integrated traditional practices and local expertise into the project, which has contributed to its sustainability (Delormier et al., 2003; Macaulay et al., 1997).

Similar to KSDPP, the Sandy Lake School Diabetes Prevention Program (SLSDPP) is another well-known intervention that has used a CSH approach and cultural traditions to promote healthy behaviours among Indigenous children. Although comparable to KSDPP, SLSDPP was specially designed for Indigenous children living in remote northern communities, a significant difference from KSDPP, as availability of healthy food is extremely reduced in remote settings due to limited geographic accessibility (Saksvig et al., 2005). From the different evaluations that this intervention has undergone, reported outcomes support that SLSDPP has achieved an increase in health and nutrition knowledge, a rise in dietary fibre intake, and a decrease in screen time use in elementary school children (Saksvig et al., 2005). Although no changes have been reported in children's anthropometric measurements, this project resulted in the development of numerous community-wide interventions and activities to promote health, such as the creation of a store program aiming to increase the availability of nutritious foods in the community (Kakekagumick et al., 2013). SLSDPP and KSDPP are excellent examples of how CSH approaches can have positive effects on the physical health of Indigenous children and also result in positive changes in the community's environment.

Many other interventions have used similar approaches to KSDPP and SLSDPP to instill healthy nutrition and physical activity habits in children. Examples of these interventions are

Drop the Pop (Glacken, 2011), Purple Tongue Project (Dewailly et al., 2013), Action Schools! (Tomlin et al., 2012), Healthy Buddies™ (Ronsley et al., 2013), and the Aboriginal/Indigenous Youth Mentorship program (Eskicioglu et al., 2014). Even though only two of these interventions have reported significant changes in children's anthropometric measurements (Eskicioglu et al., 2014; Ronsley et al., 2013), all of them have achieved many encouraging results that have impacted the health of Indigenous children and the community environment. In addition, the involvement of community members, such as Elders, and the use of traditional practices in these interventions is a noticeable strength, which results in increased reach of the intervention to people in the community who can benefit from these initiatives. When community members get involved in these interventions, there is the potential for the project to become sustainable and to achieve long-term success (Delormier et al., 2003).

### **2.3. Mentoring**

Different authors have described multiple definitions of the word "mentoring". For example, DuBois and Karcher (2014) have used the term "mentoring" to refer to the interpersonal relationship that happens between two people of different ages (mentor and mentee), where the development of the youngest person (mentee) is supported and guided in a non-professional way by the oldest one. Other authors argue that not only mentee's development is supported through mentoring, as mentors also learn and benefit from these relationships, making it more like a co-mentoring or reciprocal mentoring relationship (Kochan & Trimble, 2000). Regardless of the definition and the multiple levels of interaction and learning a mentoring relationship has, it is important to mention that the specific label that the mentoring relationship receives will depend on a diversity of factors, such as where the mentoring takes place (e.g., field-based mentoring, site-based mentoring), the structure of the mentoring process (e.g., one-on-one mentoring, group mentoring) or even the age of the people involved in the relationship (e.g., cross-age peer-mentoring) (Karcher, Kuperminc,

Portwood, Sipe, & Taylor, 2006). The foundation of mentoring is focused on building quality relationships that will positively impact mentee's and mentors future (Grunwald, 2011; Kochan & Trimble, 2000), meaning that making a meaningful connection between mentor and mentee is the essential aspect of mentoring (Karcher, 2014).

Different interventions have used mentoring to positively influence children's and youth's development in numerous areas, such as education (Lampley & Johnson, 2010), crime prevention (Tolan, Henry, Schoeny, Lovegrove, & Nichols, 2014), and health (Eskicioglu et al., 2014; Ronsley et al., 2013). Although several studies and reviews have been conducted to prove the efficacy of mentoring, the evidence is still mixed and provides contradictory results (DuBois, Holloway, Valentine, & Cooper, 2002; Wood & Mayo-Wilson, 2012). In the literature, there are examples of unsuccessful mentoring programs (Guryan et al., 2017) that raise questions about the efficacy of this strategy. In contrast, there are also examples of mentoring programs that have been implemented in different settings and have achieved many of their goals (Herrera, Grossman, Kauh, & McMaken, 2011). Mentoring programs that have been proven successful in different settings tend to share certain commonalities like: 1) having regular meetings between mentors and mentees (for at least ten times, at least once a week) (Karcher, 2014), 2) giving proper training to mentors, and 3) monitoring the mentoring relationship while supporting mentors as needed (Garringer, Kupersmidt, Rhodes, Stelter, & Tai, 2015; National Mentoring Resource Center, 2014).

While mentoring is a strategy used to support and guide mentee's development, like mentioned before, there are also some proven benefits for the mentors. Mentors involved in mentoring programs have reported improvements in empathy and the development of organizational skills (Karcher, Zholu, Avera, & Johnson, 2017). In addition, improvements in leadership skills are also promoted when youth are engaged in mentoring other youth or children (cross-age peer mentoring) (Petosa & Smith, 2014).



### **2.3.1. Peer-mentoring**

Peer-mentoring, also known as cross-age peer mentoring, is an interpersonal relationship that occurs between a youth mentor and another youth or child (mentee); in this relationship, the youth mentor provides support and guidance to the development of the younger mentee. For a relationship to be considered a cross-age peer-mentoring relationship, the youth mentor needs to be more mature than the mentee by at least two years (Karcher et al., 2017). Peer-mentoring is a popular model for mentoring children and youth, and in addition to supporting mentees' development, it also serves as an opportunity for youth mentors to develop leadership skills (National Mentoring Resource Center, n.d.; Willis, Bland, Manka, & Craft, 2012). Depending on the program's objectives, budget, and structure, peer-mentoring can be delivered as one-on-one mentoring (one mentor matched with one mentee) or can be delivered in a group setting (one mentor supporting two or more mentees) (National Mentoring Resource Center, n.d.).

One of the perceived advantages of engaging peers as mentors is that youth mentors can mimic the role of an older sibling (Smith, 2011a). As the essence of mentoring is the establishment of quality reciprocal relationships, that mentors can be perceived as an "older brother" or an "older sister" speaks about the meaningful connection that can be built with this type of mentoring, which can be beneficial to mentee's growth and development (Karcher et al. 2017; Smith, 2011a). Although the efficacy of peer-mentoring is still under review, different programs have successfully used this strategy to support children's and youth's development in a variety of areas (Chew & Wallace, 2007; Jucovy & Herrera, 2009; Smith, 2011b).

#### **2.3.1.1. Peer-mentoring as a strategy for health promotion and CSH**

The engagement of peer mentors has been a strategy broadly used in different contexts to promote healthy behaviours among children and youth (Layzer, Rosapep, & Barr, 2014;

McCallum et al., 2017; Petosa & Smith, 2014; Smith et al., 2011; Starkey, Audrey, Holliday, Moore, & Campbell, 2009). Studies describe that, since peers usually share important attributes (such as cultural background) with mentees and are closer to their age, mentees can relate better to them (Svenson, 1998), and most of the time mentees consider peer mentors reliable sources of information (Harden, Weston, & Oakley, 1999). There is evidence that shows that peer-mentoring can be a useful strategy to instill healthy habits in children and youth. For example, interventions utilizing peer-mentoring approaches have achieved positive results in the fields of smoking and alcohol prevention (Bobrowski, Pisarska, Ostaszewski, & Anna, 2014; Starkey, Audrey, Holliday, Moore, & Campbell, 2009), sexual health (Layzer, Rosapep, & Barr, 2014), nutrition (Smith, 2011b), and physical activity (Ginis, Nigg, & Smith, 2013). Furthermore, peer-mentoring interventions can be a way to promote social interaction, a factor that has been associated with youth's mental (Petrasek MacDonald et al., 2013) and physical health (Richmond, Ross, & Bernier, 2007).

The use of peer-mentoring programs has also been reported in school-based interventions that have employed CSH frameworks (Ronsley et al., 2013; Santos et al., 2014). Peer-mentoring programs as, written about in the literature, align with three of the four inter-related components of the CSH framework. First, the component of "social and physical environment" refers to promoting quality relationships and emotional wellbeing in the school community (Pan-Canadian Joint Consortium for School Health, 2018); peer-mentoring programs can be used to address this component as they promote meaningful connections among mentors and mentees that can positively influence their wellbeing (DuBois & Silverthorn, 2005; Petosa & Smith, 2014). Second, the component of "teaching and learning" recognizes that students should acquire curricular and non-curricular experiences that will help them develop skills to improve their wellness (Morrison & Peterson, 2013); peer-mentoring programs can be a way to help students develop and put in practice social skills that can benefit their emotional and mental wellness (Morrison & Peterson, 2013). Finally, the

component “partnerships and services” speaks about the importance of involving different community members in working together to promote health (Pan-Canadian Joint Consortium for School Health, 2018); as such, peer-mentoring programs align with CSH as they involve a diversity of people from the community, such as program coordinators, youth mentors, mentees, schools’ staff, volunteers, and even family members to promote student’s wellbeing (Alberta Learning, 2002).

#### **2.3.1.2. Peer-mentoring as a strategy for health promotion in Indigenous schools**

Mentoring has been embedded in Indigenous practices for a long time (Alberta Children’s Services, 2007), and is considered to be a culturally appropriate way of promoting healthy behaviours to Indigenous youth (Bisanz et al., 2003; Klinck et al., 2005). Developing strong relationships with caring individuals is an essential aspect involved in the development and maintenance of Indigenous peoples’ wellness (First Nations Health Authority, 2012). Mentoring can be a method by which Indigenous communities share their strengths to those ones they mentor. In addition, mentoring programs can help create and support a unified community identity (Alberta Children’s Services, 2007).

Focusing on peer-mentoring, Indigenous communities have previously used this approach as a strategy to promote wellness among children and youth. Different peer-mentoring interventions in Indigenous communities have achieved positive outcomes in promoting healthy behaviours to prevent smoking (McCallum et al., 2017), risky sexual practices (Smith et al., 2011), and alcohol use (Carpenter et al., 1985). In Canada, due to the burden of chronic diseases related to obesity and sedentarism in Indigenous peoples, two peer-mentoring interventions have focused on reducing weight gain and promoting physical activity among children and youth (Eskicioglu et al., 2014; Ronsley et al., 2013), as it is suggested that prevention efforts for reducing the incidence of these diseases in Indigenous communities

should focus on children (Willows, Hanley, & Delormier, 2012). These two interventions are Aboriginal/Indigenous Youth Mentorship Program (A/IYMP) and Healthy Buddies™ (Eskicioglu et al., 2014; Ronsley et al., 2013). Although both interventions have used peer-mentoring as a strategy and have been proven effective in achieving changes in anthropometric measurements, they are different in the way the programs were created, delivered, and focused. First, A/IYMP was first developed by an Indigenous community in collaboration with University researchers; whereas Healthy Buddies™ is based on a program that was first developed for non-Indigenous children and that was later adapted to become culturally relevant to Indigenous communities (Eskicioglu et al., 2014; Ronsley et al., 2013; Stock et al., 2007). Second, A/IYMP is a peer-mentoring program delivered in a group setting where high school students mentor elementary school children; in comparison, Healthy Buddies™ is a one-on-one peer-mentoring program that encompasses children from kindergarten to grade 12, and teachers are the ones that decide how the big buddies (mentors) are paired with their younger buddies (mentees) (Eskicioglu et al., 2014; Ronsley et al., 2013). Finally, although both interventions have physical activity and healthy eating components, A/IYMP emphasizes relationship building and Healthy Buddies™ highlights positive body image. Even when the two programs are different, both have significantly decreased BMI and waist circumference in children, two factors associated with the development of chronic diseases (Eskicioglu et al., 2014; Ronsley et al., 2013).

### **2.3.1.3. Aboriginal/Indigenous Youth Mentorship Program (A/IYMP)**

A/IYMP is an after-school, peer-led group mentoring program that was developed to reduce risk factors associated with the onset of T2D in Indigenous children and youth (Eskicioglu et al., 2014). The program is delivered by high-school mentors typically in 90 minutes sessions, weekly, for a minimum of 20 weeks to elementary school children (mentees) from different grades (usually grades 3 to 6, although it varies per community).

A/IYMP promotes wellness through three components: physical activity, healthy eating, and relationship building. To achieve this, at each A/IYMP session, mentees receive a healthy snack and get involved in games that promote physical activity and relationship building (Eskicioglu et al., 2014).

High-school students (mentors) from grades 7-12 plan and deliver A/IYMP to mentees from their community. These mentors are trained before the first session of the program and are supported throughout the program's duration by a Young Adult Health Leader (YAHL) from the community. Through their training, mentors learn about the different components of A/IYMP and how they can put them into practice when delivering the program. The YAHL from each community also receives training prior to the first session of A/IYMP, instructs and supports mentors so they can become the primary deliverers of the program, and oversees each program's delivery. The YAHL meets regularly with youth mentors to foster relationships and to identify the strengths of the group (e.g., skills, interests, and knowledge), then helps mentors to plan and deliver the program, building on these strengths (Eskicioglu et al., 2014).

Although A/IYMP has certain defined components, it also has the flexibility to be tailored and adapted to each community's needs. For example, each community school has the freedom to decide which grades will get involved in the program, how many mentors will be delivering it, or even how many times a week will the program be running. Schools delivering A/IYMP also incorporate traditional practices as part of the program, and this can be done through integration into games and activities. For doing this, many of the communities seek advice from community Elders and other community knowledge keepers, who play an essential role in the design of their program.

#### *2.3.1.3.1. A/IYMP theoretical framework*

A/IYMP is rooted in two Indigenous models of wellness and education: The Circle of Courage (Brown, 2005) and the Four R's model (Kirkness & Barnhardt, 1991) (See Figure 1).

Although one of the main objectives of the program is to promote a healthy lifestyle for all its participants, it also attempts to empower children and youth through the values and teachings that these two models promote. The Circle of Courage is a North American Indigenous medicine wheel that encompasses four crucial developmental needs for children and youth: *belonging*, *mastery*, *independence*, and *generosity*. The first developmental need, *belonging*, speaks about a child's feeling of attachment to others and the surrounding environment; it gives children a sense of connection and plays an essential role in developing empathy and respect for others. The second developmental need, *mastery*, refers to striving to be better, but not to be superior to others, but for cultivating personal growth. The third developmental need, *independence*, represents the ability to become self-sufficient, responsible, and able to solve problems, and it encourages children to build inner discipline. The fourth developmental need, *generosity*, symbolizes the relevance of being generous, selfless, and respectful to others; through this component, children can make positive contributions to other people's lives. All four developmental needs should be kept in balance in order for children and youth to maintain wellbeing (Brown, 2005).

The Four R's model helps A/IYMP to promote leadership among youth mentors. This model integrates the principles of education that Indigenous youth pursue: *respect*, *reciprocity*, *responsibility*, and *relevance* (Kirkness & Barnhardt, 1991). *Respect* refers to the sense of acknowledging the value of one's identity, including your own self; *reciprocity* speaks about the mutual relationships of giving oneself to others and being able to receive back; *responsibility* encourages youth participation; and *relevance* represents the ability of appreciating and building upon what is meaningful to others and their strengths (Kirkness & Barnhardt, 1991). Each R on the model is integrated in different ways throughout the program.

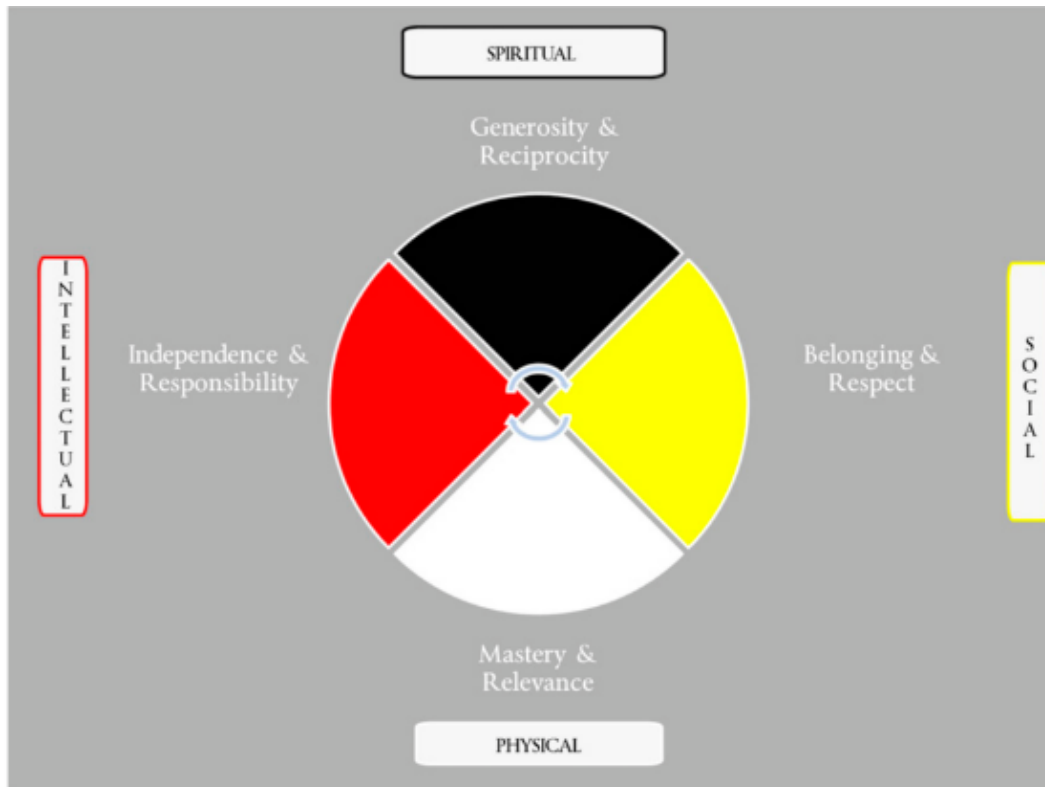


Figure 1. The Circle of Courage and the 4 R's model (Taken from Eskicioglu et al., 2014, with permission of *Pediatrics*)

#### 2.3.1.3.2 Research and evaluation

A/IYMP is a project that started as a partnership between the Garden Hill First Nation community and researchers from the University of Manitoba. The program was developed based on the community's interest in reducing T2D in youth, as the rates of pediatric T2D in this community were among the highest in Canada (Eskicioglu et al., 2014). The community and the researchers started building their partnership in 2006 and worked together to create a program that was culturally appropriate for the community. Together, they developed A/IYMP, then pilot-tested it in 2010, and published their two-year outcomes in 2014. During this study, grade 4 students from the Garden Hill First Nation community school were part of the intervention arm, while grade 5 students from the same community were part of the

control group. The community and the researchers hypothesized that by attending the program, students in the intervention arm (n=51) would attenuate their weight gain, would reduce changes in their waist circumference, would increase their healthy living knowledge, and would improve their self-efficacy when compared to the control arm (n=100).

The program was delivered by youth mentors once a week, in 90 minutes sessions, and offered all the components of the program that were previously described (see section 2.1.3.1). To measure the outcomes of the program, researchers and community members evaluated different variables. Body Mass Index Z-score (BMI Z-score) and waist circumference were used to assess anthropometric changes. A validated self-reported tool was used to evaluate improvements in self-efficacy, healthy eating, and physical activity knowledge. The results from this two-year intervention showed that A/IYMP was effective in reducing changes in BMI z-score and waist circumference and in improving healthy eating knowledge among grade 4 elementary school children (Eskicioglu et al., 2014).

#### *2.3.1.3.3 The rippling of A/IYMP*

A/IYMP has been recognized by the Public Health Agency of Canada to be a “best practice” to promote wellness for Indigenous children and youth (Public Health Agency of Canada, 2016), and since 2012, the program started its rippling process to other Indigenous communities. When thinking about “rippling” I tend to think about the circular waves that are formed after throwing a pebble into the water. The same way that these water waves naturally spread, A/IYMP also expands to other communities. The successes from each A/IYMP community help to scale up the program to other communities; this resembles the way that water waves naturally expand and the effect they have on other emerging waves.

In 2017, the program was implemented in 13 Indigenous communities around five Canadian provinces (two in Alberta, one in Saskatchewan, seven in Manitoba, two in Ontario, and one in Quebec), these communities have partnered with researchers that work at different



Canadian universities, making A/IYMP a multi-sited community-university partnership. Researchers support the communities with the implementation process of the program, with the economic resources needed for its delivery, with the evaluation process, and with finding the ways of becoming community-sustainable in the future. Each community tailors and adapts the program towards their needs and resources.

Given the strengths-based approach of A/IYMP, different gatherings are hosted to support its implementation and provide training to YAHLS and mentors. In these gatherings YAHLS, mentors, community members including Elders, and researchers get together to celebrate the good things happening in each program, discuss some of the challenges that each community might be dealing with regarding its implementation, provide advice on how to overcome these challenges based on communities' experiences, and focus on building quality relationships among all of the members.

#### **2.4. Research justification**

A/IYMP is an after-school peer-mentoring program that aims to promote wellness among Indigenous children and youth. A/IYMP has only undergone only one evaluation, yet it has been proven successful in improving mentees physical wellbeing (Eskicioglu et al., 2014). As A/IYMP is grounded in Indigenous teachings of wellness and because of its CBPR approach, communities' perspectives are of utmost significance to the program's implementation and evaluation. Participant's experiences need to be considered in order to determine the success of A/IYMP; hence, focusing on the main stakeholders' experiences could provide valuable insight about the program's outcomes. As mentees have a central role in A/IYMP, it is important to get an understanding of their perspectives about the program. Therefore, the overall purpose of this study was to describe mentees' experiences in A/IYMP as a way of evaluating the impact the program was having on their lives by using a community-based participatory research approach (CBPR). The findings from this study could be later used by

the communities to improve their program. In addition, honouring mentees' voices and sharing their experiences broadly could help to promote the rippling of A/IYMP.

## 2.5. References

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### **3. POSITIONALITY IN RESEARCH, CBPR, AND ETHICS**

#### **3.1. Positionality in research**

I would like to start the following thesis chapter describing who I was before I started this research project, and who I became after I got involved. First, I must acknowledge that there are some intrinsic characteristics that I cannot change, and that will always be part of who I am. I identify as a non-Indigenous Mexican woman. I am also cisgender, heterosexual, university-educated, and an immigrant in Canada. I am aware that these characteristics impact the way I understand the world, and therefore, the way my research is conducted. Even though I am neither Indigenous nor Canadian, and this project was done in collaboration with two Indigenous communities located in Canada, I always sought community members' advice to make this project better, relevant, and suitable to their needs.

Before I got involved with this research study, I thought that doing community nutrition was about teaching communities how to be healthier and creating programs that help them to achieve this. I had this idea that the researchers were the "experts" because of the vast knowledge and expertise they have acquired through several years of education, and that communities needed to hear them. Prior to coming to Canada, my understanding of community nutrition was merely quantitative, as all the literature I had read, and all the projects I had worked on were tailored to that quantitative perspective. For me, community nutrition was about numbers: how much weight people were losing because of an intervention, how many nutrients were they getting from their food intake, and how much knowledge were they acquiring. These quantitative inquiries formed my limited community nutrition understanding. Before starting my Master's degree, I never heard about community-based participatory research (CBPR) or participatory action research (PAR). Those approaches and the way they are implemented were utterly alien to me. I also have

to say that my knowledge about qualitative research was feeble, and my perception of it was not the best.

When I applied to this graduate program, I was aware that I was going to work with Indigenous communities. I knew that I was going to be involved with the Aboriginal/Indigenous Youth Mentorship Program (A/IYMP), and I also knew that whatever research I did for my thesis, it was going to encompass some kind of evaluation of A/IYMP. Yet, when I started this Master's degree, I never imagined how this project was going to shift my understanding of Indigenous peoples and their wisdom, how it was going to change my perspective about wellness, how it was going to transform my concept of community research, and how much this "expert" had to learn from the real experts: the community members. I have to say that I was very fortunate to have Dr. Noreen Willows as my supervisor; she taught me so much about working in collaboration with communities and gave me a whole new perspective on how research in community nutrition should be conducted. I also have to be grateful for all the amazing community members that I had the opportunity to collaborate with.

I still remember the first time I visited one of the communities, we were going to have a research committee meeting, and I was very excited to get to know the school and the people with whom I was going to work for the next two years of my life. I remember entering the school library, not knowing what to expect of that first community encounter. Although I was a complete outsider, I remember feeling welcomed by everyone. I recall it was that feeling that made me think that I was at the right place to learn how to work with Indigenous communities, and I was not wrong. Since the beginning of the meeting, we offered tobacco to an Elder, he prayed for us to have a productive meeting, and gave thanks to the Creator for granting us the opportunity to meet. After the prayer, I noticed how community members were the ones driving the course of the meeting, how well they knew the research being conducted in their community, and how knowledgeable they were about all the topics that

were being discussed. That meeting made me realize that what I understood as community research was completely wrong. It also made me reconsider who the real experts were. I recall thinking, "there is so much that I need to learn from them." So, from that day forward, I tried to get involved in the community as much as I could.

The research was not the only thing that was encouraging me to understand the context and the environment where I was working; I truly felt that I needed to immerse myself as much as possible. I was eager to learn as much as I could about the communities' traditions and heritage. For that reason, I attended school feasts, Powwows, round dances, science fairs, A/IYMP deliveries, and every community event that I was able to participate in. I engaged in conversations with Elders and other community members. Even when I knew I would always be an outsider to these communities, and that attending all these events would never give me the sense of what being an Indigenous person is like; all these experiences provided me with a certain amount of insight to understand the voices of the project's participants. I believe that if I have not engaged myself the way I did, the research outcomes would have been very different from how they are presented. I also have to say that, even when all study participants were children, and I am obviously not one of them, some of their experiences at A/IYMP resonated with how I felt when attending the program sessions.

Throughout this research project, I understood the value of qualitative research. I also studied and put into practice the principles of CBPR. Additionally, I learned how projects should always be relevant to community members and how research should be conducted with the communities and for the communities. Moreover, I realized how traditions could be incorporated into the research practice. I was fortunate to encounter myself in this fantastic collaborative partnership between Indigenous community members and researchers; the partnership is truly an example of how research with and for communities should be conducted. Now that I have learned how a true partnership looks like, I do not think I can

go back to my previous concepts of community research. I also do not believe it is possible for me to go back to that merely quantitative person that I was, that just saw numbers and  $p$  values when reading journal articles. I believe now I have a profound desire to know the story that's behind them. I am hopeful that wherever my career path takes me, I can always put into practice what these two communities taught me, not only about research but also about life and wellness.

### **3.2. Research approach**

#### **3.2.1. Research paradigm and theoretical perspective**

This was a qualitative descriptive study that used CBPR as the main approach guiding the research process. In a qualitative study, "we assume there are multiple realities and multiple truths, and that we are presenting just one possibility" (Mayan, 2009, p.25). A qualitative descriptive method was chosen because the purpose of the study was to describe the personal experience that children were having in A/IYMP, which represents a variety of truths. From these multiple realities that may exist, the researcher is presenting just one of the possibilities that might explain the phenomenon. The research was informed by a constructivist perspective, which adopts a relativist ontology and a subjectivist epistemology (Denzin & Lincoln, 2005). A relativist ontology assumes there is a variety of realities (Denzin & Lincoln, 2005); in this scenario, children's experiences at the program implicated a wide diversity of truths. A subjectivist epistemology states that both the participants and the researcher are co-creators of knowledge and understanding (Denzin & Lincoln, 2005; Mayan, 2009), which aligned with the CBPR approach and the purpose of the study.

#### **3.2.2. Community-Based Participatory Research**

CBPR is an approach used in community research where all the involved parties in the research process (i.e., community members, researchers, involved organizations) work

together in an equitable way towards a common objective (Coughlin, Smith, & Fernandez, 2017; Israel et al., 2008). CBPR puts emphasis on the shared decision-making process (Jones & Wells, 2007); this provides a balance to the partnership and gives recognition to everybody’s expertise. Therefore, CBPR allows for everyone’s voices to be heard, considered, and respected (Rhodes, Malow, & Jolly, 2010). In addition, CBPR “highlights community resilience, resources, and opportunities for positive growth” (Coughlin, Smith, & Fernandez, 2017, p.1), meaning that CBPR builds on the strengths of the community rather than focusing on its deficits. Although CBPR is an approach to research, it also promotes a balance between the research that is done and the actions that are taken during and after the research process, all for the benefit of the community. For informing these actions, CBPR stresses the need to translate and disseminate the research findings to the community (Rhodes et al., 2010). Although there is not only one right way to conduct CBPR, there are certain key principles that researchers and community members can follow in order to have a genuine collaborative relationship (Israel et al., 2008) (See Table 1). The way these principles are addressed can influence the partnership and the research outcomes.

**Table 2.** CBPR Principles. *Adapted from Israel et al., 2008 and Rhodes et al., 2010*

<b>CBPR Principle</b>	<b>Description</b>
Facilitating a collaborative, equitable relationship between all parties involved in the research	All parties involved in the research process should work together, at their desired extent, in all stages of the research process. Every partner that comes to collaborate in the project has a role to play. Everyone brings their expertise to the project and puts their knowledge at the service of the community.
Building on the community strengths and resources	Employing the community’s assets, skills, and previous collaborative networks within the community to address the phenomenon of interest.

Respecting and following community values	Including community values and perspectives in the research process. This can be done by integrating community traditions in the research design or evaluation.
Promoting co-learning and building capacity	The research process should be a way to facilitate knowledge sharing between all parties involved. Researchers are given the opportunity to learn about the community context and interests, while community members can learn skills to conduct research.
Translating knowledge and involving partners in the dissemination process	When reporting findings from the research project, proper language, that is understandable and respectful to community members, should be used. Additionally, community members should also be acknowledged in scientific publications as coauthors and should be co-presenters of findings at conferences or symposiums.

CBPR is an approach that can be used to conduct research with groups that have historically suffered injustices, marginalization, or stigmatization (Coughlin et al., 2017). In Canada, CBPR can be used as a decolonizing approach for research being conducted in collaboration with Indigenous communities (Gokiert, Willows, Georgis, Stringer, & Alexander Research Committee, 2017). CBPR as a decolonizing approach supports Indigenous communities to have control over the investigation that is conducted, to align it towards their cultural ways of knowing, and to have an authentic participation and involvement throughout the research process (Stanton, 2014). In addition, it highlights the need for culturally safe research, where building reciprocal relationships of trust between the communities and the researchers is of utmost significance (Ka’opua, Tamang, Dillard, & Kekauoha, 2017). For building these relationships of trust, researchers need to involve themselves in community’s activities, and need to learn about Indigenous ways of knowing from community members, so they can later work together and apply them to the research being conducted (Ka’opua et al., 2017). CBPR only becomes a true decolonizing approach when the research conducted is

culturally safe, honours the strengths of the community, and provides the opportunity for community members to have a meaningful participation in all stages of research (Ka'opua et al., 2017; Zavala, 2013). For all reasons, CBPR supports Indigenous communities to become the researchers and not merely the ones being researched (Zavala, 2013). In recent years, multiple CBPR partnerships have emerged between various Indigenous communities and academic researchers, and some of them have set the example on how CBPR should be conducted (Cargo et al., 2008; Gokiart et al., 2017; Kakekagumick et al., 2013; Pigford et al., 2013).

### **3.2.2.1. Community-based participatory research within A/IYMP**

This research study is one component of the larger evaluation of the A/IYMP project that currently involves 13 Indigenous communities, five universities, and multiple organizations around Canada. Although this research study only involved two communities, we aimed to abide by the principles of CBPR that guide the A/IYMP national team. This national team uses a CBPR approach to guide the program's planning, implementation, and evaluation in every community. The A/IYMP team follows CBPR principles in multiple ways. First, community members and researchers work together in an equitable partnership to address communities' interests. Everyone brings their expertise in favour of the communities' health and works collaboratively to achieve a common goal. Second, A/IYMP uses a strength-based approach to research (Hammond & Zimmerman, n.d.). The whole project builds on the communities' assets. An example of this is that almost everyone involved in the delivery of the program is a community member, such as the Young Adult Health Leader, or the high-school mentors. Third, A/IYMP is built on respectful relationships that honour communities' values and traditions. Although A/IYMP is being delivered in 13 diverse communities, each community has a voice on how the program should be presented at their community and how communities' traditions can be honoured and incorporated at their program or at any stage



of the research. Fourth, A/IYMP is a co-learning project. Researchers learn about Indigenous ways of knowing, and community members build capacity for future project sustainability. Fifth, researchers and community members work together to disseminate the research findings in an appropriate and meaningful way (knowledge translation of findings). Lastly, community members have input on every research publication or presentation that concerns their communities. Community members participate in data interpretation, are recognized as coauthors in publications and presentations, and attend and present A/IYMP research findings at conferences.

#### **3.2.2.2. A/IYMP decision-making process**

A/IYMP involves a wide variety of communities that are unique and autonomous; therefore, there was a need to determine how decisions were going to be taken to acknowledge and respect all members' perspectives. The decision-making process is based on other successful community-university partnerships that have been reported in the literature (Macaulay et al., 1998; McComber et al., 1998; Pigford et al., 2013). There are three levels at where decisions are taken within the A/IYMP: local, door (regional), and national. The people involved in the decision-making process at each level are known as circles or advisory groups. At the local level, each community counts with a circle that approves research protocols. In addition, the Local Circle collaborates with the YAHLs and high school mentors to tailor and adapt the program toward the community's needs and values. The door circles include various communities that are geographically located in similar areas. At the moment, there are three door circles, the Eastern Door, the Manitoba Door, and the Western Door. Each door meets annually to share the progress of their program, to discuss ideas about program's implementation, to support each other through the challenges each community faces, and to discuss possible ways to address some of these challenges. Lastly, the National Advisory Circle is composed of at least three representatives from each door

circle. These representatives include an elder, knowledge keeper, or traditional person that represent the different nations involved in A/IYMP (Kanien'kehá:ka, Cree, Ojibway); a community member; and a university researcher. The national advisory circle makes recommendations about research and ensures that ethics and the principles of Ownership, Control, Access, and Possession of data (OCAP®) are followed (First Nations Information Governance Centre, 2019). Although the National Advisory Circle oversees all A/IYMP research, its decisions do not overrule individual community decision-making processes.

### **3.2.2.3. OCAP® Principles**

A/IYMP abides by the First Nations Principles of Ownership, Control, Access, and Possession of data (OCAP®) (First Nations Information Governance Centre, 2019). The OCAP® principles “are a set of standards that establish how First Nations data should be collected, protected, used, or shared” (First Nations Information Governance Centre, 2019, p.1). Ownership, Control, Access, and Possession are the four components that make up the OCAP® principles. The Ownership component states that a group or community owns all the information that is collected in their community. This ownership is on the same level as the ownership an individual has on their personal information. Control refers to the right that Indigenous peoples, their communities, and other representatives have to seek control over all aspects and stages of research. The Control component includes not only data but also resources and other management processes. The Access component states that Indigenous peoples should always have access to the data that is collected about themselves, even though the data might not be held in the community. Indigenous communities also have the right to manage and make decisions about the ways of accessing their own collective information. Lastly, the Possession component refers to the physical control of Indigenous peoples’ data; this last component is the mechanism “by which Ownership can be asserted and protected” (First Nations Information Governance Centre, 2019, p.7). Each A/IYMP

community retains Ownership, Control, Access, and Possession of their own community data. As the guardians of the data, communities must ensure that data collected from individuals, communities, and organizations remain confidential and anonymous.

### **3.3. Ethics**

#### **3.3.1. Institutional research ethics**

For this research project, ethical approval was gathered through the Human Research Ethics Board at the University of Alberta. There were some ethical considerations for this study that were important to take into account before getting ethics approval. First, this study involved the participation of children. When conducting research with children, parental/caregiver consent is needed for a child's involvement in the study; this is because children and young people under the age of 18 are usually seen as vulnerable, as they have not fully completed all stages of development (Canadian Institute for health research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2014). However, even when parental/caregiver consent is obtained, children also need to have the opportunity to agree or refuse their participation. Therefore, explicit assent from children is required as a mean to recognize their wishes of getting involved in research (Dockett & Perry, 2011). Same as when adults are providing consent to a research project, children's assent should always be adequately informed. Researchers have the ethical obligation to fully explain the research project to children, at their cognitive and language level, so they can make an informed choice regarding their research participation (Committee on Clinical Research Involving Children Board on Health Sciences Policy, 2004). For this study, all children that participated in the photovoice project were explained how the research process was going to take place, what their participation involved and, the opportunities they had to withdraw from the study. They also received a copy of their written assent that contained the study's explanation and the researcher's

contact information in plain language (Cheung, 2018), in the case they changed their mind about their participation (see appendix 1).

Second, as previously stated, parental/caregiver consent is needed for children's participation in research. Parental/caregiver consent can be obtained in two ways. The most common method of consent is active consent; this involves parents/caregivers providing evidence that they agreed to their child's participation in the study. This usually is done by fully informing the parents about the research and then having them sign a consent form. The second way to obtain parent/caregiver consent is through passive consent. Passive consent involves parents/caregivers being informed in multiple ways about the research project, not only an information letter. If parents/caregivers do not state that they don't want to let their child participate in the study, then it can be assumed that they give permission for their child to participate in the study (Range, Embry, & MacLeod, 2001). Passive consent was used to obtain consent from parents/caregivers in one of the communities in the present study at the community's request, as this form of consent aligned better with the community's practices. In the other community, active consent was obtained from parents.

Lastly, when this photovoice project was initially discussed with community members, researchers thought about the ethical implications of giving cameras to children. The researchers considered that children should not be allowed to take photographs of other people, as it could put at risk participant's and community's anonymity. However, both communities expressed that children should have the opportunity to document their A/IYMP experience with photographs that portrayed that exact experience, including other people attending the program. Due to this, in our ethics application, we emphasize this communities' request to the ethics board and got approval for it. In order to allow children to take photographs of other people, children needed to first have the person's assent to take the photograph. If the photograph was chosen to be part of any kind of publication (such as this thesis), we went back to the photographed person, showed them a copy of the photograph,

and gained written consent. If the photograph was of a child, then we asked for written parental/caregiver consent and also written assent from the child.

### **3.3.2. Community-based ethics**

For getting ethics approval from the University's ethics board, we first worked with the communities' schools to build up a project that met ethics requirements and communities' needs. Both communities were interested in having an evaluation of their program. Although neither community has an ethics board of their own, one of them has a research steering committee (Alexander Research Committee -ARC-) that is involved in all the research being conducted at the school, and that can provide the approval for research projects (Murray, Alexander Research Committee, Farmer, Maximova, & Willows, 2017; Pigford et al., 2013). The school Principal and ARC members are part of the A/IYMP team and have decision-making power over the planning, delivery, and evaluation of the program in their communities. In the other community, we relied on the Principal's approval for the study. After discussing the possible options for evaluation with these community members, they all agreed that photovoice was the most suitable way to proceed with the assessment of the program in their communities.

After the decision was made to have a photovoice project with mentees, the principal investigator worked in collaboration with the two participating communities to frame the study towards their interests and values, always abiding by the guiding principles of the ARC and CBPR principles. The ARC Guiding Principles outline how research should be conducted in the community, and it encompasses rules for ethics; data generation, storage, use, and ownership; decision-making processes; and meeting and research protocols that should be followed to ensure that the community always benefits from the research being conducted (Gokiart et al., 2017; Murray et al., 2017; Pigford et al., 2013). Although these guiding principles are tailored to one of the communities, we also followed them with the research

process that took place at the other community. Through different research meetings with these two teams, the principal investigator got input and feedback about the project regarding the following:

- *Project's inclusivity*: all mentees attending A/IYMP at these schools were given a camera to promote inclusivity. In addition, all mentees that returned their camera were provided with a copy of their photographs, whether they participated in the one-on-one interview stage or not.
- *Parental/caregiver consent*: as per communities' values, communities requested a parental/caregiver consent process that aligned with their values and procedures. One community requested an active consent process and the other one a passive consent process.
- *Child assent to research*: all children involved in the one-on-one interview stage provided written assent for their participation. Interviewers needed to ensure that the child understood the implication of their involvement in the study, such as the use of their words and images for research. Interviewers also explained the confidentiality of the research. Plain language was used to develop the written assent form. A copy of the form was provided to children, and all interviewed children were given an additional month to contact the researcher if they changed their minds about their participation in the study.
- *Taking photographs of other people*: communities requested that children should be allowed to take photographs of other people. Children were explained that prior to taking a photograph of someone, they needed to ask for the person's assent.
- *Gaining consent for the use of photographs in publications*: if children photographed a person, and the photograph was selected to be included in any kind of publication, the portrayed person needed to see the photograph before providing written consent. If the photographed person was a child, written parent/caregiver consent and written child

assent were required for the use of the photograph. All photographs that did not portray a person or where the person could not be identified (blurred or dark photographs) could be used for publications.

- *Knowledge translation*: communities suggested the development of a photobook that reflected the study's findings (see Chapter 5 for photobook development process). The photobook needed to include at least one picture from each child that returned a camera, even if they did not participate in the one-on-one interview stage.

After all of the above was fully discussed with the communities, and all members agreed to the procedures, approval for the photovoice project was gained, and the application to the University's research ethics board was submitted.

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#### **4. *EMIYOPIMATISICIK*: “THEY ARE ALL LIVING A GOOD LIFE” FIRST NATIONS CHILDREN’S EXPERIENCES AT A PEER-MENTORING PROGRAM GROUNDED IN INDIGENOUS TEACHINGS OF WELLNESS, A PHOTOVOICE EVALUATION**

##### **4.1. Introduction**

Childhood is recognized to be a critical stage of life for the development of healthy habits (World Health Organization, 2017). Since most children spend a substantial amount of time at school, this setting provides an optimal location for the implementation of health promotion programs (Langford et al., 2015). Many school-based interventions have been developed to improve student’s health, and evidence suggests that many have achieved positive outcomes, especially in the fields of nutrition (Foster et al., 2008; Fung et al., 2012), physical activity (Kriemler et al., 2010; Wright & Suro, 2014), and tobacco use (Perry, Stigler, Arora, & Reddy, 2009). Among the different strategies that have emerged and have been applied in school settings, the Comprehensive School Health (CSH) approach has been shown to improve student’s academic outcomes (Guertin, 2015) while supporting students’ wellness (Pan-Canadian Joint Consortium for School Health, 2018). Programs using CSH frameworks take into account the multiple components of health, adapt to the local school environment, and partner with different community members and groups as CSH by definition involves the home, school, and community (Fung et al., 2012; Storey et al., 2016). Furthermore, research suggests that the use of a CSH approach in schools can also lead to positive changes in the home environment (McKernan et al., 2019).

##### **4.1.1. Health promotion programs in Indigenous settings**

A significant aspect to be considered when developing school health promotion programs for Indigenous children and youth is the unique way these communities define health (Tagalik, 2010). Most Indigenous groups see health as holistic, where not only physical health is

important, but spiritual, mental, and emotional health are considered essential for achieving wellbeing (First Nations Information Governance Centre, 2018). However, in research and practice many interventions have focused on the physical aspect of health to define and evaluate Indigenous wellness (Tagalik, 2010). Although it is established that Indigenous worldviews of health should be used in the development, implementation, and evaluation of health interventions for Indigenous communities (Harris, Bhattacharyya, Dyck, Hayward, & Toth, 2013), only a few interventions in Canada developed for children and youth, that have reported their outcomes in peer-reviewed journals, have integrated Indigenous philosophies in their design (Baydala et al., 2016, 2014; Eskicioglu et al., 2014; Macaulay et al., 1997; Ronsley et al., 2013; Saksvig et al., 2005; Tomlin et al., 2012). In order to re-design school-based interventions grounded on Indigenous knowledge, programs should draw on the strengths of Indigenous worldviews that support wellness. These worldviews include the exercise of traditional practices and values and holistic approaches to health (Tagalik, 2010).

One strategy that can be used by schools located in Indigenous communities to develop culturally relevant health promotion interventions is the use of a CSH approach. This approach aligns with Indigenous worldviews of health as it sees health in a holistic way (Reading & Wein, 2009). In addition, it allows for interventions to be tailored to the school and community's needs (Veugelers & Schwartz, 2010) and to integrate the community's traditional practices and beliefs into the intervention, this way, school-based health promotion programs can be more culturally appropriate and better suited to the community's environment (Tagalik, 2010).

#### **4.1.2. Peer-mentoring in health promotion**

Peer-mentoring has been historically embedded in Indigenous practices, is considered a culturally appropriate method to promote health among Indigenous children and youth (Bisanz et al., 2003; Klinck et al., 2005), and is a recognized approach in programs utilizing

CSH frameworks (Ronsley et al., 2013; Santos et al., 2014). Research has shown that engaging peers in health promotion interventions is an effective way to promote health since peers share important characteristics (such as age, experiences, or cultural background) that can make them relate to those they are mentoring (Svenson, 1998) and could be considered by mentees to be trustworthy sources of information (Harden et al., 1999). Studies show peer-mentoring interventions with children and youth in Indigenous and non-Indigenous contexts have achieved positive outcomes in sexual health (Layzer et al., 2014; Smith et al., 2011), smoking prevention (McCallum et al., 2017; Starkey et al., 2009), and alcohol use (Bobrowski et al., 2014; Carpenter et al., 1985). There is also evidence indicating that peer-mentoring programs can reduce weight gain (Thomas & Ward, 2006) and promote physical activity (Ginis et al., 2013), two factors associated with the development of type 2 diabetes (T2D) (World Health Organization, 2016). In Canada, peer-mentoring has been successfully used in two different programs for the prevention of obesity and T2D risk factors in Indigenous communities (Eskicioglu et al., 2014; Ronsley et al., 2013), one of them being the Aboriginal/Indigenous Youth Mentorship Program (A/IYMP) (Eskicioglu et al., 2014).

#### **4.1.3. The Aboriginal/Indigenous Youth Mentorship Program (A/IYMP)**

A/IYMP is an after-school, peer-led intervention that aims to promote wellness among elementary school children and, consequently, reduce T2D risk factors. A/IYMP promotes physical activity, healthy eating, and relationship building. The program typically consists of a 90-minute session delivered at least once a week for a minimum of 20 weeks. In every session, elementary school students (mentees) receive a healthy snack, play games/physical activities, and participate in activities that promote relationship building. High-school students (mentors) from grades 7-12 deliver A/IYMP to mentees from their same community. In addition, a Young Adult Health Leader (YAHL) from the community supports and helps

mentors to plan and deliver each session to mentees. A/IYMP not only promotes a healthy lifestyle for Indigenous children (mentees), but it also empowers the high school mentors.

The theoretical framework of A/IYMP is based on the Circle of Courage (Brown, 2005) and the 4 R's model (Kirkness & Barnhardt, 1991) of Indigenous learning (Eskicioglu et al., 2014). The Circle of Courage is a North American Indigenous medicine wheel that integrates the four crucial developmental needs that children need for achieving wellbeing: belonging, mastery, independence, and generosity (Brown, 2005). The Four R's model represents the four principles of education that Indigenous youth seek: respect, relevance, responsibility, and reciprocity, and it promotes leadership among high-school mentors (Kirkness & Barnhardt, 1991). Together they provide the theoretical framework of the program to encourage intellectual, spiritual, social, and physical health among children and youth.

A/IYMP was pilot tested in 2010 with the community of Garden Hill First Nation in Manitoba. This pilot study showed that A/IYMP was effective in reducing changes in BMI and waist circumference and in improving healthy eating knowledge among elementary school children (Eskicioglu et al., 2014). Consequently, A/IYMP was recognized by the Public Health Agency of Canada to be a "best practice" in health promotion for Indigenous children and youth (Public Health Agency of Canada, 2016). From 2012-2017 A/IYMP was rippled (scaled-up) to include 12 additional communities across Canada (two in Alberta, one in Saskatchewan, seven in Manitoba, two in Ontario, and one in Quebec). Each community tailors and adapts the program to meet its unique needs.

#### **4.1.4. Study rationale and objective**

Participants' experiences are important to the program's implementation and evaluation process. Specifically, understanding mentees' experiences of the program is a way to assess the perceptions they have of A/IYMP. Moreover, this evaluation could help improve the program based on mentees' perspectives. Therefore, the purpose of this study was to explore

the meaning that A/IYMP had for the children that participated in the program. The objective of this study was to use an arts-based data generating strategy to describe mentees' experiences of A/IYMP. This study was guided by qualitative inquiry and followed a community-based participatory research approach (CBPR). Photovoice (picture taking involving individual semi-structured interviews) was used as a data generating strategy for children to share their experience of the program.

## **4.2. Methods**

### **4.2.1. Setting**

This study included two First Nations community schools in central Alberta that participated in the rippling of A/IYMP. The indigenous language spoken in both rural communities is Cree, although in one of the communities Stoney is also spoken. Even though the language of instruction in both schools is principally English, children are also taught to speak Cree. Both schools are band-operated, meaning they make their own decisions about curriculum and programs. Both schools initiated A/IYMP delivery in February 2017 and were interested in evaluating mentees' experiences in the program. During the second year of implementation in 2018, one school had 32 mentees from grades three to five participating in A/IYMP, whereas, in the other school, 13 mentees from grades four and five participated in the program.

### **4.2.2. Research Approach**

Community-based participatory research (CBPR) was the overarching approach guiding this study. CBPR is defined as a process of collaboration where participants, researchers, and all involved organizations in the research bring their strengths to the project and are equally engaged in it (Coughlin et al., 2017). In CBPR, all members work together for the development, delivery, and evaluation of a study. CBPR principles state that: research should

be a cooperative and co-learning process among all the members involved; investigation and action should be balanced; and research should be a process that empowers participants to be agents of change in their communities (Minkler & Wallerstein, 2008). Based on the above, this research followed the principles of CBPR because communities, mentees, and researchers brought their unique experiences to the project in an equitable way; mentees and researchers worked together to produce knowledge that could be used for the improvement of A/IYMP; and mentees, who are the key participants of the program, had the opportunity to speak about their experiences at A/IYMP.

#### **4.2.3. Building relationships with community members**

When working in partnership with communities and utilizing a CBPR approach, researchers should allocate enough of their time to build strong collaborative relationships with community members (Yang et al., 2019). Researchers should also get involved in community activities and events to show they have a broader interest in the community than just research (Christopher, Watts, McCormick, & Young, 2008). By getting to know the community, by showing a true interest, and by creating and maintaining strong relationships with community members, trust can be built, which will ultimately impact the research success (Christopher et al., 2008; Rogers & Petereit, 2005).

For this research, both communities already had an existing partnership with the researchers from the University of Alberta involved with A/IYMP. One of the communities has a long history of collaboration with A/IYMP researchers, and their work has been previously reported in different publications (DyckFehderau, Holt, Ball, Alexander First Nation Community, & Willows, 2013; Genuis, Willows, Jardine, & Alexander First Nation, 2015; Gillies, Alexander Research Committee, Farmer, Maximova, & Willows, 2019; Gillies, Farmer, Maximova, & Willows, 2018; Gokiert, Willows, Georgis, Stringer, & Alexander Research Committee, 2017; Hanbazaza et al., 2015; Murray et al., 2017; Pigford et al., 2013).



The principal investigator for this photovoice study was not a member of the communities, and there was a profound desire within her to build a strong relationship with community members and to understand better the communities where she was going to work. In order for the researcher to build these relationships with community members, especially with the mentees participating in A/IYMP, the principal investigator attended and actively participated in different school, community, and research events such as school feasts, Powwows, Round Dances, school science fairs, research meetings with community members, and multiple A/IYMP activities. By participating in these events, the principal investigator was able to build trust with community members and to understand better the context where she was working. In addition, her participation in all these activities helped the researcher in the data analysis process to understand some of the wording mentees were using, the people they were referring to, and some cultural pieces that were unknown to her before her involvement in this study.

#### **4.2.4. Participant sampling and recruitment**

Convenience sampling was used to recruit mentees into the photovoice study (Mayan 2009). A brainstorming session about photovoice was provided during an A/IYMP session at each school to recruit mentees for the study. From the 45 mentees enrolled in the program, 40 attended the brainstorming session. All 40 mentees received a disposable camera to promote inclusivity, but only those mentees who gave written assent and whose parent/caregiver gave consent to be in the study were included as study participants. A total of 19 mentees participated in the one-on-one interview stage.

Based on the community schools' requests, culture, and practices, active parental/caregiver consent was used in one community, and passive parental/caregiver consent was used in the other. For the community with active consent, an information letter with the research description and a consent form were sent home with mentees following the

brainstorming session. Mentees from this community were included in the study if a parent/caregiver signed and returned the consent form. For the community with passive consent, an information letter with the research description and a non-consent form were sent home with mentees following two of the program's sessions. If a parent/caregiver did not want their child to participate, they were asked to sign and return the non-consent form to the school (see appendix 2 and 3). In addition, information about the research was posted on the School's Facebook page (see appendix 4). If parents/caregivers did not want their child to be interviewed, they could call the school Principal or send a message to the school's Facebook page to express their decision. It was assumed that a non-response from the parent/caregiver was evidence that a child had permission to participate in the study (Range et al., 2001). Despite these numerous opportunities, no parent/caregiver indicated that they did not want their child to be interviewed.

In total, 19 mentees from ages 8 to 11 years-old were interviewed in June 2018 (see Figure 2). More than half of the mentees ( $n=11$ , 57.9%) had been participating in the program since 2017, which means that when interviews were conducted in June 2018, this was their second year enrolled in the program. For the rest of the mentees ( $n=8$ , 42.1%), at the time of the interview, this was their first year being involved with A/IYMP. A sample size between 20-30 participants is often recommended to achieve saturation when using photovoice with children (Genuis et al., 2015; Heidelberger & Smith, 2015; Jennings & Lowe, 2013; Mckernan, 2016). Although the sample size of this study was just below the literature recommendation, the principal investigator confirmed that data saturation was reached with the 19 mentees based on the redundancy of data during analysis (Saunders et al., 2018).

Both community schools requested that mentees were allowed to take pictures of people. Written consent for the use of images in presentations and publications was obtained from adults who were photographed by mentees. If mentees took pictures of another child, the child's parent/caregiver needed to provide their written consent for the use of the photograph,

and the photographed child had to assent to its use (See Appendix 5). The Human Research Ethics Board at the University of Alberta reviewed and approved this study (approval No. Pro00069533). One community school had a research committee that approved the research, whereas, in the other school, the Principal gave their approval for the study.

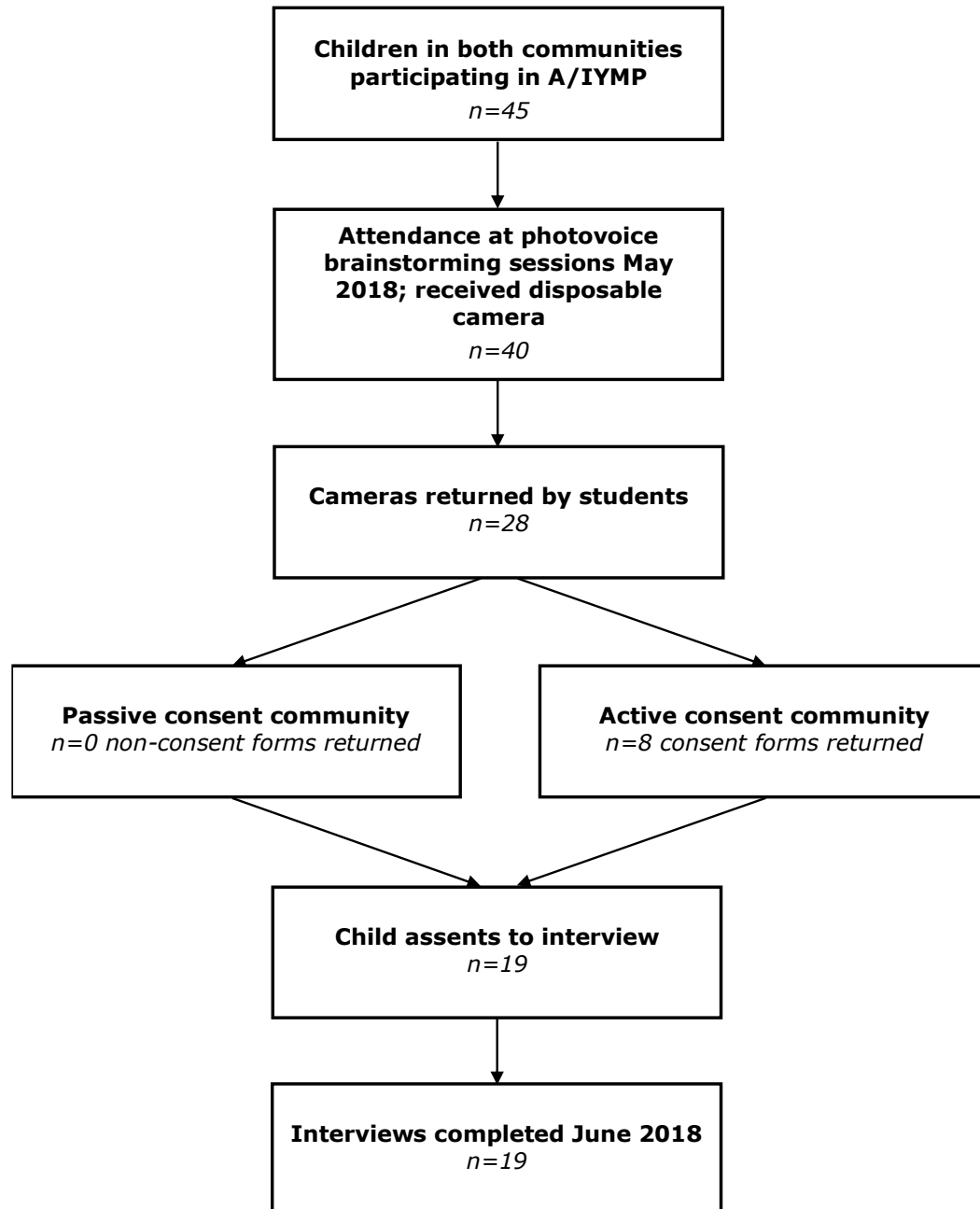


Figure 2. Participant sampling and recruitment process

## **4.2.5. Data generation**

### **4.2.5.1. Photovoice**

For this study, photovoice was used as the primary data generating strategy. In photovoice, participants receive cameras to provide a visual representation of their experiences and knowledge about a research topic (Wang & Burris, 1997). The photographs taken by the participants are later discussed using either focus groups or individual interviews to give meaning to and explanation of the images (Wang, 2003; Wang & Burris, 1997). Photovoice aligns with CBPR as it “creates evidence and promotes a vivid participatory means of sharing expertise and knowledge” and “enables people to produce and discuss photographs as means of catalyzing personal and community change” (Wang & Pies, 2008, p.185). Specifically, for this study, photovoice aligned with CBPR as mentees shared their knowledge and expertise about A/IYMP with researchers and community members that could be used to evaluate the program.

Different studies have successfully used photovoice with children and youth as a tool to stimulate participation and discussion (Genuis et al., 2015; Jardine & James, 2012; Mckernan, 2016). Even though photovoice was first developed as a needs assessment instrument, it has efficiently been used for program evaluation (Kramer, Schwartz, Cheadle, & Rauzon, 2013; Mckernan, 2016; Raber et al., 2016; Sands, Reed, Harper, & Shar, 2009) and its use in research with Indigenous children and youth is considered culturally appropriate (Genuis et al., 2015; Jardine & James, 2012). For this study, photovoice was divided into three stages: brainstorming, photo-taking, and one-on-one interviews.

### **4.2.5.2 Stages of photovoice data generation**

#### *4.2.5.2.1. Brainstorming session*

The first stage of data generation involved a brainstorming session that took place in each community during one A/IYMP after-school session (see appendix 6 for brainstorming session overview). The brainstorming sessions occurred in May 2018. The purpose of the brainstorming was to familiarize the mentees with the study's purpose and objectives and to instruct them in the use of disposable cameras. During this session, mentees were instructed to discuss and write down things that represented the components and characteristics of A/IYMP. By doing this, they could reflect on the things that were part of the program. For this process, mentees, mentors, and YAHLs worked together in small groups to brainstorm about these ideas, later they wrote them together on a piece of paper and discussed them in front of everyone that attended the session.

After the brainstorming discussion was conducted, all mentees were given a "mission" to take pictures of things or people that provided an answer to the question: *What does A/IYMP mean to you?* Mentees were informed that they had one week to take pictures that could answer the question and that they could return their camera to any school or A/IYMP staff. Mentees were encouraged to take at least 20 photographs of objects, people, or scenarios that could answer the "mission" question. After the "mission" was described, possible ideas for photo-taking were discussed, safety rules for picture-taking were verbally explained and then provided as a hard copy (see appendix 7 for Photo-taking instructions and safety rules), and disposable cameras were handed out. All mentees that attended the brainstorming session received a camera to promote inclusivity and encourage participation.

Disposable cameras were used instead of digital cameras for three main reasons. First, we wanted mentees to take meaningful photographs of what A/IYMP meant to them. With a disposable camera, mentees knew that a limited number of photographs could be taken (27 shots), encouraging them to reflect on the things/people they wanted to capture and to focus on images related to the study. Second, we did not want mentees to download the photos to their computers, especially pictures of people. The third reason was that most mentees in

these schools had never seen a disposable camera before, and it was hoped that the novelty of a disposable camera would create excitement among mentees to participate in the study.

#### *4.2.5.2.2. Photo-taking*

All mentees were asked to return the camera in one week, although a few of them took up to two weeks to return their cameras. In one community, four mentees misplaced their cameras and were given new ones. Once the film from each camera was developed, the principal researcher reviewed photographs to ensure that they did not contain inappropriate material. Only one photograph was removed due to an offensive hand-gesture. After the photographs were reviewed, all mentees received a copy of the photographs they took.

#### *4.2.5.2.3. One-on-one interviews*

Individual semi-structured interviews were used to gain meaning from the photographs taken by mentees. One-on-one interviews were conducted instead of focus groups because the purpose of the study was to gain an understanding of the unique experiences that mentees were having at A/IYMP. In addition, the use of one-on-one interviews instead of focus groups in photovoice provided an opportunity for mentees who might not feel comfortable speaking in front of others to express their ideas and feelings about their photographs (Jennings & Lowe, 2013). Other researchers utilizing photovoice with Indigenous youth have successfully used individual interviews as a way to gather meaning to their photographs (Jennings & Lowe, 2013; Shea, Poudrier, Chad, & Atcheynum, 2011).

Two researchers conducted the interviews in a private room provided by the schools. Before the interview took place, a researcher explained to the mentee the interview process and confidentiality, and afterwards, written assent was obtained. Interviews were audio-recorded and consisted of three main stages, as proposed by Wang & Burris (1997): *photo selection, contextualizing, and codifying*.

1. *Photo selection*: During the interviews, mentees were asked to choose five to six pictures that best represented what A/IYMP meant to them and that they were willing to discuss with the interviewer.
2. *Contextualizing*: Mentees were asked a series of questions that provided meaning to the pictures they took. A modified version of the mnemonic *SHOWeD* interview guide proposed by Wang (2006) was used:
  - What do you **S**ee here?
  - What's really **H**appening here?
  - How does this relate to **O**ur lives?
  - **W**hy does this situation, concern, or strength exist?
  - What can we **D**o about it?

Additionally, some general questions related to the program's framework were included (see appendix 8 for interview guide).

3. *Codifying*: Mentees were asked to group their photographs into similar ideas and to give a title to each one of them; in this way, possible "codes" could be identified for the data analysis.

#### 4.2.5.2.4. *Field notes*

Two different sets of field notes were made. First, field notes were taken during four A/IYMP sessions in both communities before the photovoice project was conducted. During these sessions, the principal investigator took the role of participant-observer, which involved full participation in the program's activities while observations were being recorded (Mayan, 2009). Field notes were also taken during one-on-one interviews to record the setting, mentees' moods, and expressions when discussing their photos. Field notes were not analyzed; rather, they helped the researcher to provide context to mentees' words. They were

used to inform and guide the decision-making process during the data analysis and to understand better mentees' words in relation to the context and the people they mentioned.

#### **4.2.6. Data analysis**

All interviews were audio-recorded and transcribed verbatim. The principal investigator verified the accuracy of the transcripts two times and made changes when necessary (such as missed words or phrases). All data were analyzed inductively, meaning that no framework was used to guide the analysis. For the analysis, latent content analysis was used. Latent content analysis is a cyclical process in which data is identified, coded, and categorized in major patterns (Mayan, 2009). For this study, this process was suitable as the researcher and the community research committee continuously analyzed the interpretations of the data to ensure a precise representation of the mentees' ideas. This data analysis process is divided into four stages: *coding*, *categorizing*, *theming*, and *making conclusions*.

The *coding* involved the manual identification of persistent images, words, and phrases provided by the mentees during the interviews (Mayan, 2009). This process was continuously repeated to familiarize the researcher with all the data and to ensure data were appropriately coded. After the coding was completed, data were *categorized* manually. The emerging categories were compared continuously and judged to ensure internal and external homogeneity (Mayan, 2009). After categories were defined, the *theming* process took place. Theming "is the process of determining threads that integrate and anchor all of the categories" (Mayan, 2009, p. 97), meaning that, during this stage of data analysis, the researcher grouped categories into themes that could answer the proposed research question. The *making of conclusions* was the final step of the analysis, and it was achieved through constant self-reflection of the obtained themes. This process also involved the discussion of each code, category, and theme with the community research committee and researchers from the University of Alberta involved in the A/IYMP project.



In qualitative research, data analysis should be an iterative process; ideally, data should be analyzed as it is generated to allow the researcher to make changes to the interview guide or change the direction of the study if needed (Mayan, 2009). Due to school agendas and time constraints, it was not feasible to analyze the data as it was being produced; therefore, all data were analyzed when all of it was generated.

#### **4.2.6.1. Critical friends**

After the interviews were completed and transcribed, the photographs and interviews were reviewed, and the preliminary data analysis was completed; the photographs, their descriptions, and the researchers' interpretations were discussed with three groups of critical friends. These groups were the two community research committees and the three academic researchers involved in the A/IYMP project from the University of Alberta. A critical friend in research contributes to the research process by questioning the researcher's processes, data interpretation, and findings, with the objective of engaging the researcher in a critical reflection of their research (Appleton, 2011). Critical friends do not usually contribute to the decision-making process of data interpretation, but rather provide guidance to the investigator about their own research process. Yet, due to the CBPR approach of the project, the research committees from both communities played an important role in the decision-making process of the data analysis. Both groups provided insight and made recommendations in the data analysis process. In addition, because the principal investigator did not belong to these communities and is a non-Indigenous person the guidance and knowledge from these critical friends was crucial. For example, when interpreting the data and deciding which photographs and quotes could be included in the results, a member of one community committee explained that photographs and quotes that were related to spirituality should not be included in study findings, but photographs and quotes that represented Indigenous culture could be included, because "culture is part of who you are".

Codes, categories, and themes were explained by the principal investigator to both critical friends' groups, and then they were revised. Both groups suggested minor changes in the organization and naming of some of the categories and themes; this was done based on their knowledge and experience of their communities and their program. All recommendations made by these critical friends were considered and applied to the results if the principal investigator considered they were a better representation of the data analysis. If there were some differences in ideas between the critical friends' groups and the researcher, decisions were made together until a consensus was reached.

#### **4.2.7. Rigour**

Rigour has been defined as "demonstrating how and why the findings of a particular inquiry are worth paying attention to" (Mayan, 2009, p. 100). Lincoln & Guba (1985) proposed four criteria to achieve rigour (or as they named it, trustworthiness) in qualitative research: *credibility, transferability, dependability, and confirmability*.

*Credibility* assesses whether the findings are a plausible representation of participant's ideas. In qualitative research, there are different ways to assess the *credibility* of a study. One of the most common strategies for achieving *credibility* is the use of member-checking, which refers to going back to the participants, presenting them the researcher's interpretations of the data, and gaining their feedback to see if these are a correct depiction of their words (Korstjens & Moser, 2018). For this study, although it would have been optimal to have mentees member-check the findings, this was not an available option to us due to time constraints and school agendas. Another strategy to achieve *credibility* is for researchers to have prolonged engagement with the participants and their setting. By engaging in the context where participants develop, the researcher can have a better understanding of the data, which can lead to a better interpretation of participants' ideas (Korstjens & Moser, 2018). For this study, the principal investigator achieved *credibility* by investing enough time

to get to know the communities and its members. She did this through all of her multiple participations at community and school events and A/IYMP activities. Additionally, the input of community knowledge-keepers that worked as critical friends was sought about the validity of the researcher's interpretation of mentees' interviews. Even when the principal investigator emerged herself in the context where she was working, she was still a non-Indigenous person, which meant that community members' knowledge of their community was valuable in validating the researcher's interpretations of the data.

*Dependability* refers to reviewing the decision-making procedure through all the research. *Confirmability* refers to making sure that the study findings have a logical meaning. *Dependability* and *Confirmability* were achieved through the documentation of all the researcher's decisions and insights that were gathered in an audit trail. Finally, *transferability* considers how the findings of the research can be applied to other situations or contexts (Lincoln & Guba, 1985). Researchers can facilitate the *transferability* of the results by providing a thick description of the context and the research process, which was done in this study by thoroughly describing the communities, A/IYMP, their participants, and all the research procedures.

### **4.3. Findings**

In total, 19 mentees were interviewed for this study. The analysis of the interview transcripts and photographs resulted in one overarching theme, enjoyment of the program, and three main themes: (1) building and strengthening relationships within the program, (2) instilling values and traditions of the program, and (3) working towards a healthy lifestyle.



Figure 3. Overarching theme, themes, and categories representing what A/IYMP meant to the mentees attending the program

#### **4.3.1. Overarching theme- Enjoyment of the program**

Based on the analysis, the enjoyment of the program was important for mentees. Mentees valued the opportunity to have fun with their peers, mentors, and YAHLs to whom sometimes they were family-related. Additionally, they enjoyed the program because they had the chance to learn about traditions, values, and culture. They also treasured having the opportunity to stay active while enjoying the program, which had an influence on the way they perceived their physical wellbeing. Mentees perceived that the essence of the program was to “*have fun.*” As an example, participant 7 explains that participating in the program is special because it provides the opportunity to have fun:

Interviewer: ... *what does it mean to be a part of the after-school program for you?*

Participant 7: *What does it mean to me-, Kinda special.*

Interviewer: *It means something special, what’s special about the program?*

Participant 7: *You can almost do anything you want, you always get to have fun no matter what.*

In addition, participant 9 portrayed the fun that is experienced at the program with the following picture and comment, *"We're playing a game, and we're having fun with [the YAHL]."*



Figure 4. "Waiting"

Both quotes suggest that having fun is an aspect of A/IYMP that is valued by mentees. Also, as part of the interview questions, we wanted to explore the feelings and emotions that were related to the program; for that, we asked mentees directly, *"how does the program make you feel?"* Most of the answers and comments from mentees were that A/IYMP made them feel *"happiness"* or *"joy"*; having these feelings towards the program also contributed to its enjoyment. Participant 3, in particular, represented her feelings towards the program with these words and photograph:

Interviewer: *... what is happening in this picture?*

Participant 3: *The trees are growing, and summer's coming and nice blue sky...*

Interviewer: *And how is this picture related to the after-school program?*

Participant 3: *After school is really glorious for me, and so I took this glorious picture. And after-school is growing with love, so that's why trees are growing and so it's like ooh this is a perfect spot. After-school's growing with love, I'm like I'll take a picture.*



Figure 5. "The trees are growing so you might as well grow with love too"

#### **4.3.2. Theme - Building and strengthening relationships within the program**

A/IYMP values and encourages relationship building. Mentees expressed, through their images and words, how A/IYMP has helped them to build new relationships with people that attended the program and to keep and strengthen ongoing relations with family members and friends. In addition, mentees spoke about the impact these new and current relations were having on their lives. Even though mentorship was highly promoted by the program, mentees not only described their connections with the youth mentors being of significance at the program, but also mentioned the influence that A/IYMP was having on their appreciation of the YAHLs, the strengthening of family bonds, and the building and strengthening of friendships.

#### 4.3.2.1. Category - Connecting with youth mentors

Mentees described that youth mentors played a crucial role in the program's delivery; they also mentioned having positive and meaningful interactions with them. Some mentees took pictures of mentors to portray what A/IYMP meant to them, and some others did it because they simply *"like to take pictures of the mentors"* or *"wanted to remember all the mentors."* As an example, when participant 18 was asked what does A/IYMP mean to you, the answer was, *"it means that we get together and just play, and we play games with our mentors."* Also, the same participant stated that the program produced happiness and excitement, and when prompted about what part of the program created those feelings, participant 18 said, *"when the mentors come."* Moreover, another mentee (participant 8), when asked the same question, responded, *"I like the mentors, they are nice."*

Every time photographs of mentors were chosen for discussion, or when mentors were mentioned during the interviews, all mentees expressed a positive opinion about them. Some mentees created meaningful bonds with certain mentors, they even mentioned their names during the interview, and some said they made them feel happy. One mentee that chose a picture of a mentor to discuss stated, *"they [the mentors] make me feel better (so I'm not mad at all the time)."* (Participant 13, Figure 6).



Figure 6. "The mentor"

#### 4.3.2.2. Category -Appreciation of the YAHL

The Young Adult Health Leader (YAHL) is usually a person from the community who supports high school mentors in the program's delivery; yet, in some communities, the YAHL also plays a "mentor" role, which was the case for one of these communities. Therefore, mentees had a keen appreciation of the YAHLs and mentioned them as part of their experience at A/IYMP. YAHLs usually get involved in the activities that take place during the program, and this was noticed and valued by the mentees. For example, participant 4 took a picture of a YAHL (see figure 7) and explained why she was of importance to the program:

Interviewer: *why did you take this picture then?*

Participant 4: *Because like she's like the after-school teacher, and she does all this just for us.*

Interviewer: *Do you like [her]?*

Participant 4: *Yeah.*

Interviewer: *What do you like the most of her?*

Participant 4: *That she's like really creative with games and stuff.*



Figure 7. "Awesome"



This mentee particularly valued the YAHL's creativity and ensured that the program is something she does for them. All mentees that mentioned the YAHL as part of their program's experience stated that playing with them was fun. For instance, participant 8 took a picture of a YAHL because she enjoyed "going on her back" when playing (see figure 8).



Figure 8. No title

#### **4.3.2.3. Category -Strengthening of family bonds**

Most mentees valued having family members attending the program; this was reflected in the multiple photographs that mentees took of their brothers, sisters, cousins, and other relatives. Having the opportunity to spend time with family members was an aspect of A/IYMP that mentees considered had an impact on the way they experienced the program. This was especially appreciated when mentees had limited opportunities to do so. For example, participant 7 stated that participating in the program was special. When asked what about the program created those feelings, the participant said:

Participant 7: *I have a lotta friends and cousins who go to this.*

Interviewer: *Yeah, and you like spending time with them?*

Participant 7: *Yeah 'cause I don't really get to see them a lot 'cause I'm usually in the city.*

In both schools, some mentees and mentors were family-related; some mentees mentioned that A/IYMP allowed them to play games with them as they usually do not spend too much time together. As an example, participant 18 captured a photograph of a relative who is a mentor playing with them and explained:



Figure 9. "[title removed to protect mentee's identity]"

Interviewer: *So how does that [the program] make you feel?*

Participant 18: *Happy 'cause I always see my auntie.*

Interviewer: *You always see your auntie? Is she a part of the program?*

Participant 18: *Yeah, she's a mentor.*

Interviewer: *Oh, okay. And so do you like that the mentors come back to the school to play with you guys?*

Participant 18: *Mmmhmm.*

Interviewer: *Yeah? And what kind of atmosphere does that create? How do you feel in the gym when the mentors are there?*

Participant 18: *Feels good 'cause then you can go to play with teenagers [referring to her auntie]. 'Cause at home, the teenagers at home, they don't even play with us.*

As it can be seen in this statement, A/IYMP contributes to the strengthening of family relationships by providing a place and time for family members to share moments together, that otherwise could not be happening.

#### **4.3.2.4. Category- Building and strengthening of friendships**

Friendship was a topic that most mentees had mentioned to be part of their experience in the program. Mentees tried to capture the essence of their friendships by taking photographs of their closest friends. They also mentioned feeling happy while being around them and cherishing the opportunity to extend the time they spent with them after school. As participant 12 stated, "*it [being part of the program] means to be able to stay with my friends.*" Furthermore, mentees felt that part of the essence of the program was friendship, as it can be observed in this photograph and quote:



Figure 10. "Friendship"

Interviewer: *let me know what do you see here in this picture.*

Participant 1: *After-school program, friendship, and people.*

Interviewer: *Friendship and people? And what do you see in the picture?*

Participant 1: *I see my uhm, one of my best friends there.*

Interviewer: *One of your best friends there, and what is happening in this picture?*

Participant 1: *Uhm, I am taking a picture of her... I am taking a picture of her at the after-school program, which is about friendship.*

Even though some friendships were already present when the communities started running the program, A/IYMP also allowed new friendships to emerge. Mentees talked about how the program permitted them to make new friends, as stated by participant 9, "*It [the program] means where I have a lot of fun and make new friends.*" Some mentees also noted that the program allowed them to "*learn about friendship*" and taught them how to be a good friend.

#### **4.3.3. Theme- Instilling values and traditions of the program**

Mentees in the study expressed that being part of A/IYMP implied learning and practicing specific values that would help them have a better relationship with their peers, mentors, YAHLs, and community. Concerning this, mentees established that being part of the program meant having the opportunity to learn and practice respect, autonomy, collaboration, and altruism, as well as having the chance to honour their traditional heritage and practices. The program inspired and encouraged values through activities and by the example set by mentors and YAHLs.

##### **4.3.3.1. Category-The art and value of respect**

Respect was a value that was continuously experienced throughout the program's implementation. Mentees stated that during A/IYMP, they could practice this value in different ways, such as showing respect to others when playing or by treating people the way they wanted to be treated. For example, when participant 3 was asked about what new things they have learned in the program, this was the answer: "*I learned a lot about respect and how to*

*treat other people the way you wanna be treated and not to be afraid to stand up for yourself."*

Mentees also provided examples where respect was necessary to enjoy better the program, such as when playing a game and having to respect everybody's turn or when they needed to listen for instructions when a new game or activity was being introduced. Mentees also mentioned that during the program, they could see how people respected each other by not experiencing bullying, arguing, or fighting between their members, and in participant's 9 words, the program was teaching them to *"be a friend, not a bully."* Mentees also took pictures that captured the respect the program was showing them. For example, participant 5 took a picture of an Elder and explained:



Figure 11. "Respect"

Interviewer: *...and, how is this picture related to the after-school program?*

Participant 5: *'Cause the program is respectful, and he respects other people.*

#### **4.3.3.2. Category -Fostering autonomy and a collaborative environment**

YAHs and mentors plan each program, and together, they decide the activities and games that will be taking place at each session. However, during the program's delivery, mentees also shape the program towards their needs and preferences. Mentees appreciated that the program provided them with opportunities to be independent and gave them the

chance and power to make decisions that ultimately affect them. Concerning this, participant 7 took the photograph in Figure 12 and mentioned:



Figure 12. "Include"

Participant 7: *We were gonna play Drip Drip Drop, and I was asking if I could play hockey just for a little bit more*

Interviewer: *...So instead of me asking you why you took this picture, why did you pick this picture to talk about?*

Participant 7: *I don't know. You know how I was saying about opportunities; this is an opportunity that I'm asking about that if I could do the certain thing.*

Interviewer: *Okay, so it shows how you have a voice to make choices in the after-school program.*

Participant 7: *Yeah.*

Mentees explained that when a game was not appealing for them, they always had a choice of playing something else, and this usually happened by voting together to change the game or by doing something else, like building a fort with others, while the rest was playing.

Even when each mentee has a say in choosing what to play, making decisions as a group was encouraged, meaning that while individual choices were respected, shared decision making, participation, and teamwork were also promoted throughout the program. Mentees described that during A/IYMP, participation and teamwork were relevant and added meaning to it. Mentees stated that part of the purpose of the program was to get everyone involved and participating, such as participant 4 explained: *"So like, sometimes people won't participate like... they don't wanna play this game 'cause they're getting too mad or something like that, and they're losing, but like... it's all about participation...'Cause [the YAHL] says that you have to participate because, like if you can't participate, then like that's what the program's for, to participate in activities"*.

Other mentees explained that the program was about learning to play as a team, to be able to have fun while interacting with others who might or might not be your friends. For instance, participant 1 explained, *"If I can choose to be on a team with all of my friends on the other one, I won't be mad. I will just play dodgeball or something like that"*.



Figure 13. "Active and friendship"

Another mentee also captured how being surrounded by this collaborative environment made this mentee feel included, and portrayed this with a photograph of the school (Figure

14) and quote, "It [the photograph] reminds me of feeling included because everybody always includes me in everything even if they're not my friend" (Participant 7).



Figure 14. "Joyfulness"

#### **4.3.3.3. Category- Altruistic and caring**

As part of the program's theoretical framework, one crucial aspect of A/IYMP is to promote the spirit of generosity, in which mentees create concern for others and learn to be altruistic. Mentees explained that A/IYMP taught them to care more about others and to help them when in need. They explained that being gentle and kind to people was promoted in the program; that helping and standing up for others was important for them; that making other people happy is of relevance to their lives; and that solidarity could be seen in different ways throughout the program, such as teaching someone how to hold a hockey stick or helping someone if they got hurt while playing. They also talked about the people that did this kind of things for them during A/IYMP's delivery, such as participant 2, "*whenever we go [to the program] my sister [Figure 15] will be there, and (when people are being mean) she will stand up for me.*"





Figure 15. "My sister"

Another mentee explained that as part of the program, she has learned to help other people, *"I learned how to be very helpful and very, very, not very like... Not to be very selfish, yeah. And how to share and how to help other people with their stuff if they need help, just ask first before you help. If they say no, it's okay. Then I can help, but if you see they're having a hard time and ask again if you can help again because you never know if their answer will change."*

#### **4.3.3.4. Category -Indigenous heritage/practices**

Mentees mentioned some traditional practices as part of their program's experience. Having talking circles to share their thoughts about their day or to discuss and choose the game they want to play, were representations of cultural practices during the program. Mentees also spoke about how A/IYMP helped them to learn more about their heritage and their community traditions. For instance, participant 1 spoke about Powwows, which are social gatherings held in First Nations communities where people honour their culture through dance, song, food, and ceremony. This same participant mentioned the Jingle Dress dance, which is one dance performed at Powwows by girls and women:



Figure 16. "Culture"

Interviewer: *...what do you see on this picture [Figure 16]?*

Participant 1: *I, uhm, I see style, I see uhm, girls dancing jingle...They are girls dancing Powwow.*

Interviewer: *Dancing Powwow? Oh! You went to a Powwow then.*

Participant 1: *Yeah.*

Interviewer: *Okay, and why did you take this picture?*

Participant 1: *'Cause at the after-school program we learn about our culture.*

The same participant exemplified ceremonial things related to their culture they have learned at A/IYMP with this statement, "She [the YAHL], one time she, she taught us to make moccasins and also medicine bags [a pouch that contains sacred items]...like we put tobacco in there, we smudge it, and then we give it to an Elder." Other mentees enjoyed having games and activities that involved their heritage, such as doing art or playing a game using Cree language; as participant 4 stated, "there's a lot of like, like culture games that we kinda play but like are about Cree and stuff and I don't know it's just like a good program". Some mentees mentioned that due to their program's participation, they felt they were learning more about their community.

#### **4.3.4. Theme- Working towards a healthy lifestyle**

For mentees, attending A/IYMP was a way to stay active and healthy while having fun. Mentees took various photographs to capture the activities and games they played at the program and talked about the types of fruits they had as a snack. They appreciated that the program provided a designated space and time to do physical activity and granted them with a healthy snack during its delivery. Mentees mentioned that being part of A/IYMP meant to play fun games and do sports; they also said that the program was all about "*being healthy*" and that it made them "*feel active.*" For instance, participant 3 took a picture of herself eating an apple (photograph not included for anonymity purposes) and explained, "*Participating [in A/IYMP], it makes me feel very healthful, and it makes me feel very active, makes me feel very nice and beautiful in every way, and very kind.*"

Furthermore, the environment where the program was delivered had relevance for mentees. For some mentees, that the program was run indoors and outdoors was enjoyable because both spaces provided the opportunity to do different types of activities and games. For example, participant 4 explained that sometimes during A/IYMP, they could walk around and play water games:

Participant 4: *I see water, I see lots of grass, I see some trees, and that's all I see...*

Interviewer: *... why did you take this picture? ...*

Participant 4: *Because like, we like, for the after-school program we would walk around in grass and sometimes we would play with water, so there's water there, and there's lots of trees, and it just was really beautiful.*



Figure 17. "Beautiful"

#### **4.4. Discussion**

This photovoice project, which aimed to understand the meaning that A/IYMP had for mentees, is one component of the program's evaluation that is based on primary stakeholders' experiences. The content and explanation of the photographs provided by mentees demonstrated that they were enjoying their time at the program, were building relationships with mentors and other A/IYMP members, were learning and exercising Indigenous values through their participation, and were forming healthy habits. These results depicted various components needed to achieve wellness based on Indigenous world views of health (First Nations Health Authority, 2012). Included in these worldviews, is the understanding that in order to achieve wellbeing, all four components of health, physical, spiritual, mental, and emotional, should be in balance. Our results provide evidence of how A/IYMP grounded in Indigenous teachings, is achieving success in promoting health among Indigenous children.

From our findings, we could see that part of the success of A/IYMP was that mentees were enjoying the program, as they stated that A/IYMP provided opportunities for them to have fun. As mentioned by other authors, mentoring programs should be enjoyable and fun for stakeholders since having pressure-free environments can lead to the development of

positive and strong relationships between mentors and mentees (Garringer & MacRae, 2008). In our findings, we were able to see that such relationships were being built and strengthened; additionally, we were able to observe the development and promotion of other important relationships for mentees. The importance of building strong and meaningful relationships and social interactions reside in the role they play in mental health (Petrasek MacDonald et al., 2013) and the influence they have in overall health (Richmond, Ross, & Egeland, 2007). As an example, a recent study in the US found that a lack of social connections increased the risk of inflammation in adolescents in the same way as physical inactivity (Yang et al., 2016); this highlights the role that relationships play in maintaining and supporting an individual's wellbeing. Similarly, many Indigenous holistic views of health indicate that the way we interact with others and our environment plays an essential role in achieving and maintaining wellness (Dumont, 2005; Richmond, Ross, & Bernier, 2007).

In order to build good relationships with others, there is a need to exercise values that will help to support relationship-building (First Nations Health Authority, 2012). As mentioned in our findings, mentees in A/IYMP were experiencing and practicing values that helped them build positive relationships with others, such as respect. Respect is a value that influences the way we interact with ourselves and with others. That mentees were able to talk about respect in the context of a health promotion program highlights the importance of incorporating these values into A/IYMP. In addition, traditions and culture were mentioned by mentees to be part of their experiences at the program. When health promotion programs integrate traditional values and cultural practices in their delivery, these interventions are more likely to succeed in their goals as they become more relevant to the participants and their communities (Barnett & Kendall, 2011). Concerning healthy habits, mentees mentioned that the program has helped them to feel active and to be healthier by means of playing games and eating healthy snacks. Klinck et al. (2005) have reported that recreation plays an important part in delivering

successful mentoring health promotion programs, as children should be able to have fun while investing time in their wellbeing.

The program is grounded in Indigenous teachings of wellness, which perceives health as holistic (Brown, 2005). Considering that the development and delivery of A/IYMP is based on Indigenous teachings, its evaluation should also be grounded in Indigenous values. Therefore, changes in the anthropometric measurements or the knowledge acquired by participants should not be the only means of evaluating the success of this and other health promotion programs for Indigenous youth that target to improve children's health. In addition, there is a need to include Indigenous children's experiences and perspectives as part of a program's evaluation, as they are the only ones that can speak about the impact an intervention is having on them. It is unusual to find in the literature school-based health promotion programs that have included Indigenous children's words as part of their evaluation process (Baydala et al., 2016).

Although this mentoring program took part in an Indigenous setting, our findings support other research about the strengths of using mentoring programs as a strategy for health promotion. As such, our results supported the evidence that mentoring programs are fun for stakeholders (Diversi & Mecham, 2005), help them develop meaningful relationships (Rhodes & DuBois, 2008), and have an impact in the development of healthy habits (Ginis et al., 2013; Thomas & Ward, 2006).

#### **4.4.1. Similarities between the results and the theoretical framework of A/IYMP**

Although the theoretical framework of the program was not used for the data analysis, we encountered some similarities between our results and the Circle of Courage. We identified these resemblances after discussing the preliminary results with the communities' research committees. Together, we considered that the findings reflected how the theoretical framework of A/IYMP (Circle of Courage) is being applied in the program's delivery.

First, the crucial developmental need of belonging, which refers to the feeling of attachment and acceptance a child perceives from others, and to the sense of being part of something (Brown, 2005), resonated with the theme "Enjoyment of the program". The results from this theme matched this pillar as mentees expressed feeling happy to be part of the program, and most importantly, feeling loved by participating in it. Children's and youth's identity is strongly shaped by having a sense of belonging (Chung, 2016); additionally, belonging has been proven critical to the development and maintenance of physical, emotional, and mental health (Brendtro, Mitchell, & Jackson, 2014; Petrusek MacDonald et al., 2013).

Also, our results matched with the crucial developmental need of independence, which states that children and youth should not only be self-sufficient but should also have responsibilities and make decisions of their own. In addition, this component states that in order for children to achieve independence, their voices have to be heard and should be treated with respect. This component matched with the category of "Fostering autonomy and a collaborative environment", as mentees stated that they had opportunities to make decisions about the activities that took place in the program, and that their decisions were considered. Finally, the crucial developmental need of generosity, which promotes solidarity and altruism, and that speaks about the respect each person receives, resonated with the categories of "Altruistic and caring" and "The art and value of respect", as mentees spoke about how A/IYMP has taught them to help others and to treat people the way they want to be treated.

#### **4.4.2. Strengths**

We consider the use of CBPR to be a strength of our study, as it allowed communities and researchers to work together towards unravelling mentees' experiences in the program. Also, the use of CBPR ensured communities' perspective was forefront for all stages of the research

process, especially in the planning of this evaluation project. Another strength was that mentees were able to take pictures of people, a request made by both communities, which added richness to the results. In addition, both school communities had a partnership with the University of Alberta research team and had participated before in other projects, which facilitated the research process.

#### **4.4.3. Limitations**

Due to time constrictions and school's availability, we were not able to analyze the data in a concurrent way. Analyzing the data as it is being generated allows the researcher to notice if changes to the interview guide are needed (e.g. rewording, removing, or adding of questions). If we had done this, our interview guide could have been modified based on mentees' responses. After analyzing the data, the principal investigator realized that one of the questions from the interview guide was a close-ended question and that, in some cases, it was leading mentees' responses (from the general discussion questions about the Circle of Courage, the one asking about belonging, see appendix 8). Due to this, all mentees' answers to this question were not included in the analysis.

Another limitation of the study was that some mentees were very shy. Because of their shyness, in some cases, it was a challenge for researchers to engage mentees in long conversations, resulting in interviews that lacked depth. In addition, interviewers were not part of the community, and even when they got involved in the program's delivery and attended community events, some mentees might have refused to be interviewed because they considered them outsiders. There is a possibility that if a YAHL or a mentor had conducted the interviews, more mentees would have agreed to be part of the study.



#### **4.5. Conclusion**

This photovoice project was able to highlight mentees' experiences of A/IYMP. The photos and their descriptions revealed that mentees had positive experiences at the program and that they enjoyed participating in its different activities. Furthermore, the resultant themes showed that the main components of A/IYMP (healthy eating, physical activity, and relationship-building) were noticed and valued by mentees. This finding adds to the evidence that A/IYMP is a program that is having a positive impact on Indigenous children. Furthermore, our results provide evidence that when Indigenous knowledge and community members guide health promotion programs for Indigenous communities, they can be successful in achieving their objectives.

Based on our findings, we recommend that schools that want to run similar mentoring programs as A/IYMP for children in their communities consider the factors that gave rise to the success of A/IYMP mentioned by mentees in this study. These are: 1) include a variety of community members in their delivery, especially children's family members and friends; 2) provide opportunities for children to choose the activities where they will be participating; 3) incorporate community's traditions and values in the program's design, delivery, and evaluation; and 4) to use games and other fun activities for children to promote physical activity.

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## **5. AN ARTS-BASED KNOWLEDGE TRANSLATION PRODUCT FOR A PHOTOVOICE PROJECT: THE PROCESS OF DEVELOPING A PHOTOBOOK**

### **5.1. Knowledge translation**

According to the Canadian Institutes of Health and Research (CIHR), Knowledge Translation (KT) can be defined as “a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system” (Canadian Institutes of Health Research, 2016, p.4). In community-based participatory research (CBPR), KT can be viewed as a way of collaborating with community members to disseminate research results and working together towards action and application of what has been learned from the study (Coughlin et al., 2017). KT is an important component of CBPR as it helps to ensure that the research process and results can be used for the benefit of the community (Coughlin et al., 2017).

KT is especially important when conducting research with Indigenous communities as historically, they have experienced unethical practices and lack of commitment from researchers in returning findings to their communities (Arbour & Cook, 2006; Willows, 2017). In the literature, there are many examples on how Indigenous communities have been exploited through research, such as agreeing to participate in a study, only to find that the only beneficiaries of the research were the researchers (Lowenberg, 2010; Willows, 2013, 2017; Wiwchar, 2000). This type of “helicopter research” has been harmful to Indigenous communities, and has led to a relationship of mistrust between academics and some Indigenous peoples (Guillemin et al., 2016). In Canada, to avoid “helicopter research” being conducted with Indigenous communities, Indigenous groups have put in place research standards to establish the use and ownership of research data, and to determine how research

findings should be shared (First Nations Information Governance Centre, 2019; Gokiert, Willows, Georgis, Stringer, & Alexander Research Committee, 2017).

The sharing of research findings with Indigenous communities should be a way of “sharing what we know about living a good life” (Kaplan-Myrth & Smylie, 2006, p.25). In addition, when engaging in KT, it is important that the “culture, resources, and community acceptance of research” are considered (Coughlin et al., 2017, p.8). In the case when research is being conducted with Indigenous communities, community members have the right to decide how research findings should be shared (Kaplan-Myrth & Smylie, 2006). This may include a variety of methods, such as reports, presentations, and even arts-based strategies.

#### **5.1.1. Arts-based knowledge translation**

Arts-based knowledge translation (ABKT) is a way of sharing research findings with a diversity of audiences by employing different forms of art (Rieger & Schultz, 2014). Distinct forms of art expressions have been reported in the literature as a way of communicating research results; examples of this include poetry (Lapum, Ruttonsha, Church, Yau, & David, 2012), dance (Boydell, 2011), and photo galleries (Denov, Doucet, & Kamara, 2012; Tremblay, Baydala, Littlechild, Chiu, & Janzen, 2018). ABKT aligns with Indigenous values and might be a culturally relevant way of sharing research findings with Indigenous peoples- (Ellison, 2014). It has been suggested that the use of ABKT methods, such as storytelling or visual strategies, can be effective methods of sharing research findings when partnering with Indigenous communities (Ellison, 2014). In addition, there are different ABKT methods that have been used in the past by Indigenous communities to share study findings with Indigenous children and youth (Genuis, Willows, Jardine, & Alexander First Nation, 2015; Tremblay et al., 2018). When researchers and community members consider that ABKT can be used for the dissemination of study findings, it is important to collaboratively discuss which strategy can fit better with the research objectives, with the community’s values, and the

resources available. For this photovoice study conducted with Indigenous children, community members and researchers thought that a good way of translating the research findings to the communities could be the development of a photobook that could include the photographs taken by mentees and their spoken experiences about A/IYMP. Therefore, the aim of this chapter is to describe the photobook development procedure, from the photographs and quotes selection to some of the challenges faced in its development.

## **5.2. Selection of photographs, quotes and gaining consent process**

### **5.2.1. Photograph selection**

All the photographs that appear in the photobook were selected based on two criteria. First, photos needed to represent or be related to at least one of the themes that were presented as study findings. Second, to promote inclusivity, at least one photograph from each mentee that received and returned a camera needed to appear in the photobook. This meant that even if a mentee did not participate in a one-on-one interview, one or more of their photographs appeared in the photobook. When the photograph or photographs selected were not specifically related to one of the themes formed (due to a lack of explanation of the photo), the photograph was merged in one of the themes based on its content.

### **5.2.2. Quotes selection**

Since the photobook is a knowledge translation product for the photovoice research project previously described, quotes were selected based on their representation of the depicted themes in section 4.3 of this thesis. Most of the quotes that appeared in the photobook were part of the results previously described. Some quotes were shortened to improve readability, but the message and words spoken by mentees remained unchanged. Many of the quotes were specifically related to one photograph, and in those cases, the photograph and the quote appeared together in the photobook to make sure that the



photograph acquired the right meaning. In the case that a person appeared in one of the photographs that were linked to a specific quote, we made sure that the person appearing in the photograph knew about the wording that was going to be included with the photograph. If the person agreed that the quote and the photograph could be put together, we linked them in the photobook. If the person did not agree to the use of the image, the quote was used, and the image was not included in the photobook.

### **5.2.3. Gaining consent for the photographs**

Sometimes, when photovoice is done for research purposes, participants are not allowed to take photographs of other people due to privacy, consent issues, and possible identification of participants (Wang & Redwood-Jones, 2001). When the photovoice project was first discussed with community members, the first thought was to restrict children from taking photographs of other people. Yet, both communities showed interest in allowing children to take photographs of others; this was because community members were drawn to the idea of having pictures that showed children's experiences in A/IYMP. In addition, community members wanted to see mentees playing together, having a good time, and showing all the things that were taking place at the program. Therefore, in the ethics application, it was explained that per communities' request, children would be allowed to take photographs of other people and that the anonymity of the research participants will be ensured in case children decided to take a photograph of themselves (i.e., a selfie).

When children decided to take a photograph of a person, they first needed to gain verbal assent from the person being photographed. If the photograph was selected to be in the photobook, written consent for the use of the photograph was needed from the person appearing in it. In the case where children or youth were the ones appearing in the photographs, written consent was obtained from the child's parent/caregiver. In addition, the child also needed to provide assent for the use of the photograph. The reason it was decided

that written consent was not obtained during the time when the photograph was taken was because of the use of disposable cameras for the project. Community members noted that all the people appearing in the photographs had the right to look at the photograph before it was used in any kind of publication. Therefore, after the photographs were developed, the consent process began. The Young Adult Health Leader from each community helped to obtain consent from the photographed people. A copy of the photographs that were considered to appear in the photobook was provided to each YAHL.

A number was assigned to each one of the photographs. If a person appeared in multiple photographs, the person had the right to choose which ones could appear in the photobook. The numbers of the approved photographs were written down in the consent form; that way, only one consent form was needed (See appendix 5 for consent form outline). If the person that appeared in the photograph was under 18 years of age, parental/caregiver consent was obtained. A section was included in the consent form for the child to assent to the use of the photograph. If the child did not give their permission, then the photograph was not included in the photobook. We kept rigorous track of all the photographs where consent was granted. For photographs where multiple people appeared, all the people needed to provide consent for its use. As this consent process is still ongoing, it was decided that, in cases where one or more people in a group photograph do not agree to its publication, and other people appearing on it gave their consent, the photograph can be edited to not include the person or people that did not give their consent. If editing the photograph is not possible, then the person's face will be blurred.

### **5.3. Software using and editing**

There are a variety of online software programs available for photobook development; yet, in most cases, to have access to the complete version and tools, the payment of a fee is required. There is also the problem that when utilizing online software for editing a photo or

when developing a photobook, an online copy of the work is regularly saved in the cloud. This last consideration was of concern since a draft of the photobook needed to be created in order to gain feedback from community members about the design and overall message. As the development of our photobook is taking place while we are gathering consent for use of photographs, having an online copy of the photobook could violate the privacy of those individuals that will not provide consent for the photobook. This was the main reason why it was decided that the photobook would be developed using PowerPoint, a Microsoft Office application that is often used for developing presentations, but that also includes tools that can be used for the development of a photobook.

The newest version of PowerPoint (PowerPoint 2019) was used for the development of the first draft of the photobook. In this application, there is the opportunity to insert predetermined icons that can contribute to a better look of the photobook. Figure 18 provides an example of how these icons were used for the photobook design. It is important to mention that the photographs that appear in figure 18 were not part of the photobook draft, and all belong to the author of this thesis. The quotes do represent mentees' words. In addition, some figures that are downloadable for free on the internet were used as part of the photobook's design.

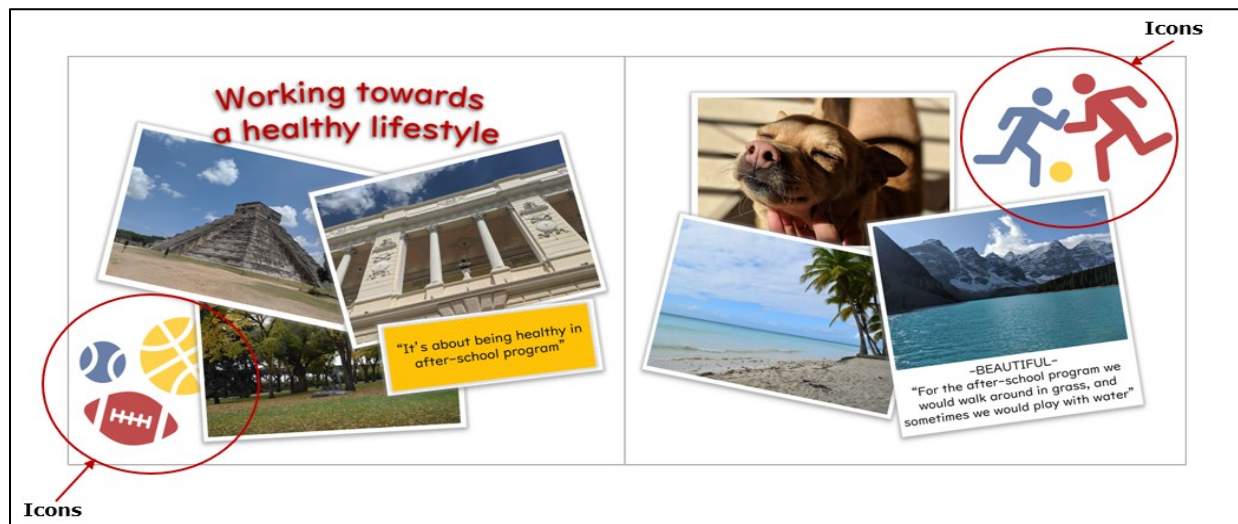


Figure 18. Example of the photobook's design with PowerPoint icons

#### **5.4. Naming the photobook**

The first draft of the photobook was shared with school community members to gain feedback about the design, quotes, and especially to ask for a special name for the photobook that could reflect the results. The school principal from one of the participating schools, after carefully revising the photobook content, suggested three different names in Cree. The name “*emiyopimatisicik*” was chosen, which roughly translates to English as “*They are all living a good life.*” This name was chosen as it reflects all the positive things that are happening at A/IYMP, as described by mentees in the study. This term is also going to be translated into Stoney language, as in one of the communities, Cree and Stoney are spoken. This translation process is still taking place.

#### **5.5. Photobook distribution**

Because the consent process is still ongoing, the photobook distribution is something that will happen in the future. However, there have been discussions with both communities on how the photobook is going to be circulated. First, all children that participated in the photovoice project, including those ones that did not take part in the interviews, will receive a copy of the photobook. Second, all A/IYMP staff from these communities will also receive a copy; these include YAHLs, mentors, and community researchers. In addition, both communities’ schools have requested that at least one copy of the photobook should be put in the school’s library. Additionally, the photobook will be shared with the national A/IYMP team and with any community interested in knowing more about the A/IYMP. It is planned that by the end days of January, the photobook will be distributed to all the people previously mentioned.

#### **5.6. Strengths**

When engaging in KT for projects involving children, the way of returning findings to community members is often by methods that only adults can understand or get involved with (Macaulay et al., 2007), such as reports or presentations. A strength of this photobook is that it will be a KT product that not only adults can access and appreciate. As children will also be receiving a copy of the photobook, they will be able to observe a tangible result of their participation in the study. Another identified strength is that the consent process was a fully informed procedure, as community members were the ones seeking consent and explained in detail how the photographs were going to be used for the photobook. Finally, the distribution of the photobook can help communities to show mentees' experiences of participating in A/IYMP, which could help promote the program at their school.

### **5.7. Challenges**

One of the biggest challenges in developing this photobook is the consent process. Although the YAHLs from each community helped with this procedure, it was hard to contact some of the people that appeared in the photographs. For example, there was a case where one mentee that appeared in multiple photographs moved away from the community, and the YAHL was not able to contact their parents to ask for consent. There are other cases where children were asked in school if they agreed to the use of their photographs for publications, and although some of them agreed, it was hard to contact their parents/caregivers to sign the consent forms. As a strategy to get consent forms back, in one of the communities, consent forms were sent home with mentees along with black and white copies of the photographs, yet, no consent forms were returned using this method. One of the reasons it is believed that these consent forms were not returned was because the photovoice project took place one year before the consent process began. The reason for this was because the data analysis took longer than expected, and since the photobook was going to be a representation of the research results, the results needed to be ready before

developing the first draft of the photobook. Due to this, there is a possibility that the photobook was no longer relevant for the photovoice participants or their parents/caregivers.

The ethical issues of using photographs of people in research have been previously reported (Crow & Wiles, 2008). Yet, to the knowledge of the author, just one previous research study described the challenges of gaining consent for photographs to be used in photovoice projects being conducted with children and youth (McHugh, Coppola, & Sinclair, 2013). In previous photovoice studies, children were usually restricted from taking photographs of others because of ethical considerations (McKernan et al., 2019), or photographs were published blurring the faces of the photographed people (Denov, Doucet, & Kamara, 2012; Heidelberger & Smith, 2015; Woodgate, Zurba, & Tennent, 2017). There is even research that has been published without photographs due to consent considerations (Findholt, Michael, & Davis, 2011; Wang & Pies, 2004). Other researchers have dealt with the challenge by giving participants' consent forms that people could sign at the moment when the photograph was taken (Hannes & Parylo, 2014). However, this method could not have worked for this project for three main reasons. First, the use of disposable cameras did not allow the photographed person to see the final photograph and based on communities' values and requests, every photographed person should have the right to see how she/he is going to be portrayed. Second, children were the photographers of other people, meaning that, even if consent was granted at the moment when the photograph was being taken, there was a possibility that the photographed person would not be fully informed about how their photograph was going to be used. Third, as children were taking photographs of other children, parental/caregiver consent was still needed for the use of the photographs (Wang & Redwood-Jones, 2001).

## **5.8. Recommendations for researchers regarding gaining consent**

Some valuable lessons about gaining consent to use the photographs of people taken by children have been learned in the present study. These lessons could possibly be used by other researchers using photovoice with children and youth. First, if photographs of people are going to be used in any kind of publication, such as research articles, photobooks, or presentations, it is recommended to gain consent for the photographs as soon as they are developed. Even if the photographs will not ultimately be published, it is better to have the consent, sooner rather than later. Second, researchers need to consider the timeline of a photovoice project. Because this study took place at the end of the school year, the summer vacation prevented us from getting consent to use photographs until the school resumed at the end of summer. Lastly, even though allowing children to take photographs of other people brings many kinds of challenges, photographs of others add richness to the study. Therefore, researchers and community members should plan well in advance what are the best and most timely ways to gain consent for the use of photographs in research.

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## **6. CONCLUSIONS**

### **6.1. Summary of findings**

In Canada, different school-based programs have integrated Indigenous knowledge and practices in their design, implementation, and/or evaluation processes (Baydala et al., 2016, 2014; Eskicioglu et al., 2014; Macaulay et al., 1997; Ronsley et al., 2013; Saksvig et al., 2005; Tomlin et al., 2012). Yet, there is a need for integrating Indigenous worldviews into all stages of health-promoting interventions being delivered in Indigenous settings (Tagalik, 2010), especially those ones that target to positively influence the wellbeing of Indigenous children and youth. Peer-mentoring programs rooted in Indigenous teachings can be a culturally appropriate way to promote healthy behaviours among Indigenous children and youth (Eskicioglu et al., 2014). Peer-mentoring programs could be used by Indigenous schools to involve community members, school staff, and other community organizations to work together towards the wellbeing of their students and the school community (Morrison & Peterson, 2013). In addition, this strategy aligns with the Comprehensive School Health (CSH) framework (Morrison & Peterson, 2013), an internationally recognized approach to promote holistic wellness and academic success in the school community (Pan-Canadian Joint Consortium for School Health, 2018).

When school-based programs are evaluated in Indigenous and non-Indigenous settings, they usually consider involving a variety of stakeholders in the process (Baydala et al., 2016, 2014; Public Safety Canada, 2007). However, most of the time, the stakeholders involved in these assessments are not the main participants of the interventions (Pierre et al., 2007). Often, student's experiences about school-based programs are not reported in the literature. As the main participants in these types of interventions, children's experiences can bring a relevant insight about the effects that a school-based program is having on their wellbeing. Therefore, the purpose of this thesis was to describe mentee's experiences in the

Aboriginal/Indigenous Youth Mentorship Program (A/IYMP), a peer-mentoring health promotion program being implemented in two Indigenous community schools in rural Alberta. By using a community-based participatory research approach (CBPR), this study aimed to address two overall objectives:

1. To describe mentees' experiences at A/IYMP using an arts-based data generating strategy (photovoice).
2. To develop an arts-based knowledge translation (ABKT) product that could encompass mentees' experiences of A/IYMP as an innovative way of sharing study findings broadly.

### **6.1.2. Objective 1 summary**

The study described in chapter 4 of this thesis was designed in partnership with school community members to assess A/IYMP outcomes through mentees' experiences using photovoice. The research included the experiences of 19 mentees that participated in A/IYMP during 2018. Mentees participating in A/IYMP received disposable cameras to capture the meaning of the program from their perspectives. Mentees shared their A/IYMP experiences through several photos and their descriptions at individual interviews. From their photographs and words four themes emerged that exemplify their experiences at the program. The first theme, *enjoyment of the program*, was the overarching theme of the study findings; in this theme, mentees spoke about how the meaning of participating in A/IYMP was to have fun and enjoy their participation. In addition, three other themes were found: (1) *building and strengthening relationships within the program*, (2) *instilling values and traditions of the program*, and (3) *working towards a healthy lifestyle*.

The theme *building and strengthening relationships within the program* represented how mentees are building significant relationships with their mentors and other A/IYMP members such as their YAHLs, family members, and friends. Mentees put relevance on how participating in the program was providing them with the opportunity to socialize and have meaningful

interactions with others. These interactions were valued by all mentees and were part of their A/IYMP experience. In addition, the theme *instilling values and traditions of the program*, described how mentees were experiencing and exercising values that helped them build positive relationships with themselves and others. Mentees spoke about values of respect, collaboration, and altruism that they were able to learn and experience during their attendance at the program. Moreover, mentees mentioned how through their attendance at A/IYMP they had the opportunity of learning about community traditions and culture. Lastly, in the theme, *working towards healthy habits*, mentees were able to express how the program was helping them to feel active and healthier by doing physical activity through the multiple games that they played at A/IYMP. All these themes represented mentees' experiences at A/IYMP and reflected how A/IYMP impacted the different dimensions of mentees' wellbeing.

The findings from this study also resembled some aspects of the Circle of Courage, which is part of the theoretical framework of the program. The Circle of Courage is a medicine wheel that denotes the four crucial developmental needs that children and youth should cultivate to achieve wellbeing. Our findings matched with three of the four crucial developmental needs described in this medicine wheel. The theme *enjoyment of the program* aligned with the crucial developmental need of belonging; the category *fostering autonomy and a collaborative environment* matched the developmental need of independence; and the categories of *respect and altruistic and caring* reflected the developmental need of generosity. That our findings were able to reflect the theoretical framework of the program suggests that A/IYMP is promoting the values and beliefs from where it is rooted, and that health promotion programs grounded in Indigenous teachings can be a successful way of promoting wellness to Indigenous children.

### **6.1.2. Objective 2 summary**

In chapter 5 of this thesis, the process of developing a photobook as an arts-based knowledge translation (ABKT) product for communicating research findings with mentees and community members was explained, and important considerations when developing a photobook were described. In this chapter, the author described the development, designing and editing of the first draft of the photobook that will reflect the study findings described in chapter 4 of this dissertation. Although the photobook is still in the process of being fully developed, different strategies for the dissemination of this ABKT product have already been discussed with community members. In addition, the first draft of the photobook has already received feedback from both communities, an appropriate name that reflects the photovoice results has been chosen in the Cree language, and a translation of this name in Stoney is in the process of being developed with one of the communities where these two languages are spoken. In addition, some of the strengths and challenges that have been faced during the photobook development process were communicated. Special attention was placed upon the use and publication of photographs of people, and the challenges that have been faced for gaining consent for the use of these photographs.

### **6.2. Contributions**

The information presented in this dissertation makes important contributions to the literature. First, this thesis adds to the evidence that states that health promotion programs grounded in Indigenous teachings can be an effective way of promoting wellness among Indigenous children. Although there is literature available that criticizes the use of traditional western approaches in the design, implementation, and evaluation of health programs for Indigenous peoples (Tagalik, 2010), only a few interventions have integrated Indigenous teachings and values in all these stages (Baydala et al., 2016, 2014; Macaulay et al., 1997;

Saksvig et al., 2005). Additionally, this study provides proof of how peer-mentoring programs rooted in Indigenous worldviews of health can positively influence children's wellbeing.

To the knowledge of the author, this research is the first study conducted in Canada, where a peer-mentoring program delivered in Indigenous communities has employed mentees' experiences as a means of evaluation. Moreover, only a few school-based interventions have employed children's words and experiences to evaluate their success (Baydala et al., 2014; McKernan et al., 2019), as the most common way of evaluation has been through quantitative measurements (Saksvig et al., 2005) or the use of school staff or parents/caregivers' perspectives (Pierre et al., 2007). Therefore, there is a need for researchers to include children's experiences as a common practice to evaluate health promotion programs targeting to improve children's health. As the primary stakeholders of these types of interventions, children have the potential to make important contributions to the evaluation process, which can help researchers to determine the different ways these programs affect children's wellbeing.

With regard to the photobook development for the dissemination of research findings, some important challenges were described about this ongoing process. Although there is research that describes some ethical considerations with the use of photographs of people for research (Crow & Wiles, 2008), not much literature has been published about the challenges of gaining consent when the photographs of people are taken by children (McHugh et al., 2013). From the challenges that have been encountered, important lessons were derived, and some suggestions to minimize these challenges were described. These recommendations can be used by future researchers that want to conduct photovoice projects with children and youth.

This thesis is also an example of how CBPR approaches can be a successful way of conducting research with Indigenous communities. The participation of community members in the different stages of this research enriched the research process and findings. First, the



research process was enhanced through the multiple discussions that community members and researchers underwent to design a culturally appropriate evaluation of a school-based intervention. In addition, feedback from community members, especially the engagement of critical friends in the interpretation of findings, provided relevant insight to the researcher and helped her to frame the results within the values and beliefs of these two communities.

### **6.3. Recommendations**

Based on this research process, findings, strengths, and challenges, there are some recommendations that could be used by future researchers who are committed to using CBPR approaches; who want to design, implement, and/or evaluate health promotion programs targeting to improve the health of Indigenous children; who are interested in designing peer-mentoring programs to promote wellness among children and youth; or who want to use photovoice as a data generating strategy for research being conducted with children and/or youth.

#### **6.3.1. Recommendations for new researchers who want to undergo CBPR**

Before conducting CBPR, it is important that researchers reflect on their role in the research process. New researchers to CBPR have to truly commit to communities, especially respecting their traditions and values. From the experiences of the author, when conducting CBPR, especially with Indigenous communities, it is important to immerse yourself in the community's environment in order to understand and contextualize research emanating from the community. Attending community events and engaging in meaningful conversations, discussions, and meetings with community members is imperative for truly understanding community's perspectives. In addition, these conversations can lead to the development of proper approaches to meet communities' needs and interests, and not just the ones of the researcher.

In addition, new researchers to CBPR need to be very patient about the times and processes that work for the community. The reason for this is because, first, building good and trustful relationships takes time, and once those relationships are built, their maintenance needs to continue. Although CBPR might take more time than conventional ways of doing research, the time spent with community members can lead to better collaborations that could impact the outcomes of the research.

### **6.3.2. Recommendations for designing, implementing, and evaluating interventions targeting to improve the health of Indigenous children.**

Based on the study findings and the available literature, there is a need for incorporating Indigenous worldviews into health interventions targeting to improve the health of Indigenous children. Indigenous knowledge, values, and beliefs play an important role in the development of Indigenous children (Pigford, 2010). To ensure that these worldviews are incorporated throughout the program's implementation process, community members should be involved in all its stages. Additionally, these interventions should be designed using strength-based approaches, always building from the community's assets and not deficits. Finally, when evaluating the success of this type of intervention, culturally appropriate methods should be used, and the sharing of the results should be a way to disseminate what has been learned about living in a good way.

### **6.3.3. Recommendations for designing and implementing successful peer-mentoring programs for Indigenous children**

From the findings of this thesis, which are grounded on mentees' experiences at A/IYMP, there are certain recommendations for program developers that are interested in designing and delivering similar peer-mentoring programs in their communities. First, we recommend that multiple community members get involved in the delivery of the program. Based on

mentees' experiences, the participation of other community members, such as family and friends, makes the program enjoyable, provides an opportunity to share good moments with them, and adds value to the program's experience. It is also advised to provide opportunities for children to choose the activities in which they will get involved. Part of the enjoyment of A/IYMP was based in the opportunities that mentees had to express their interests and model the program towards their opinions and choices. Furthermore, as previously mentioned, programs should include community's traditions, values, and knowledge into the design, delivery, and evaluation process of peer-mentoring programs for Indigenous children and youth. In our findings we were able to see that children valued having the opportunity to learn about their community's culture and traditional practices through their participation at the program. Finally, peer-mentoring programs that want to have an impact on mentees' physical activity levels should incorporate a variety of fun activities and games to make the program more enjoyable for mentees.

#### **6.3.4. Recommendations for researchers interested in employing photovoice with children and youth**

From the research findings and the challenges being faced in the photobook development process, there are some recommendations that the author would like to share with researchers interested in conducting similar photovoice projects with children and youth. First, although some studies have prevented children from photographing others due to ethical considerations (McKernan et al., 2019), we believe that providing this opportunity to children added richness to the study. Therefore, it is advised that, when possible, children and youth are allowed to take photographs of others in order to have better representations of their experiences and thoughts. Second, if children take photographs of others, it is important to emphasize the assent process about photo-taking; additionally, researchers need to allocate enough time to gain written consent from the people that appear in children's photographs.

Partnering with community members can be a good way to reach out to these people and inform them how their photographs are going to be used. In addition, it is recommended that the gaining consent process takes place right after the photographs are developed; this way, the possibility of losing contact with the photographed people can be avoided, and the relevance that the project is having at that moment could be an advantage for gaining consent.

#### **6.4. Future steps**

First, one of the future steps for this thesis project will be to finish the gaining consent process of the photographs of people. Once that process is done, the final version of the photobook will be developed so it can later be printed and distributed to the study's participants and community members. The way that the photobook will be shared within the communities has already been discussed with community members. Second, a modified version of chapter 4 will be submitted to a peer-reviewed journal in order to share our research findings with others. This is important because publishing our results will add more evidence to the literature that states that Indigenous health interventions can be successful when they are framed within Indigenous worldviews. A publication will provide evidence about how peer-mentoring programs can be successful in promoting wellness among Indigenous children. Moreover, this might be the first publication from Canada that provides evidence on how peer-mentoring programs can impact the health of Indigenous children represented by mentees' own words. Finally, the author believes that the dissemination of the photobook could be a way of promoting the program in these communities, so it should be interesting to see if more children start attending the program after the photobook distribution. Additionally, if these communities allow it, the photobook could also be a way of promoting the rippling of A/IYMP to other Indigenous communities.

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## APPENDICES

### Appendix 1. Child assent form

**Title of the Study: Expanding the Circle: A Peer-led, Resilience-Based Model of Obesity and Diabetes Prevention for Indigenous Youth**

**Study Coordinator:** Maria Fernanda Torres Ruiz, 780-695-2337

**Principal Investigator:** Dr. Kate Storey, Ph.D., RD, 780-492-9609

We want to tell you about a study we are doing. The study is a way to learn more about a school program you are in. We would like to find out what you think about the AYMP (after-school program). We are asking you to join the study because you are part of the AYMP.

If you are okay with joining the study, you will get a camera. You will take 20 pictures of things or people that describe your experience of the AYMP. After you take your pictures, you will meet with me to show and tell me about your favourite pictures. We will talk about your pictures for 20-30 minutes.

You should feel comfortable when you participate in this study. If you ever feel unhappy or do not want to answer any of my questions, we will stop.

This study will help us learn more about your experiences with the after-school program.

You do not have to join this study. It is up to you. You can say yes now and change your mind later. All you have to do is tell us you want to stop. No one will be upset with you if you change your mind later. You have until one month after you join the study to stop being a part of it (contact Fernanda Torres below).

Before you say **yes** or **no** to being in this study, we will answer any questions you have. If you join the study, you can ask questions at any time. Just tell the researcher that you have a question.

If you have any questions about this study, please feel free to contact Maria Fernanda Torres at 780-695-2337 or mtorresr@ualberta.ca

Yes, I will be in this study .       No, I don't want to do this.

---

Child's name

Date

---

Person obtaining Assent

Signature

Date

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**Title of the Study: Expanding the Circle: A Peer-led, Resilience-Based Model of Obesity and Diabetes Prevention for Indigenous Youth**

**Study Coordinator:** Maria Fernanda Torres Ruiz, 780-695-2337

**Principal Investigator:** Dr. Kate Storey, Ph.D., RD, 780-492-9609

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If you have any questions about this study, please feel free to contact Maria Fernanda Torres at 780-695-2337 or mtorresr@ualberta.ca

Yes, I will be in this study .       No, I don't want to do this.

---

Child's name

Date

---

Person obtaining Assent

Signature

Date

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## Appendix 2. Information letter and consent form

### *To the Parents or Guardians of the children attending the Aboriginal Youth Mentorship Program*

Title of the Study: Expanding the Circle: A Peer-led, Resilience-Based Model of Obesity and Diabetes Prevention for Indigenous Youth

Study Coordinator: Fernanda Torres, 780-695-2337

University Researcher: Dr. Kate Storey, Ph.D, RD, 780-492-9609

KEC Principal: Cory Arcand, 780-939-3868

#### Background

Your child is invited to take part in a project called Photo-voice. In the project, children take photographs with a camera. They will then talk about their pictures. This Photo-voice project is part of the Aboriginal Youth Mentorship Program at your child's school. Your school has approved this program. Your child is in this program, so they can be part of Photo-voice.

#### Purpose

Children have a vital role in the Aboriginal Youth Mentorship Program (AYMP). We want to know what they think of being in the Program. The aim of this study is to improve the Program. We will do this by asking children to take pictures of what reminds them of the Program. By talking about their pictures, we will learn from them.

#### Study Procedures

Being in this study involves four steps:

1. First, all children in the program will meet with the researcher and get instructions about the project. We will tell the children about the study and why we are doing it. Each child will get a camera. They will be told how to use it. Your child will be asked to take photos of what the AYMP (the program) means to them.
2. Children will have one week to take pictures of things, people, or scenes that remind them of the AYMP. When they return the camera, we will develop the film. Students will get a copy of the pictures they took to keep. If your child took pictures of people, the person will be asked to give consent for their picture to be used. If they do not agree, their picture will not be used.
3. Your child will be interviewed at the school about their pictures. The interview will be audio-recorded. This will remind us what children said. Children will talk about how their pictures relate to the AYMP. The interview will be about 20-30 minutes. It will take place during school hours or after school. Interviews will be typed.
4. A student from the University of Alberta will read the interviews. She will study what they mean. She will discuss her findings with her professors and the Alexander

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Research Committee. A meeting will be held with all children in the study. We will ask them about our findings. An album with the photos will be given to all children.

#### How the information will be used

This study is being done by the University of Alberta. The KEC Principal and the Alexander Research Committee agree with this study. What we find out may appear in a thesis, reports with the school, scientific papers and presentations.

#### Benefits

Talking with your child will help us to understand the AYMP. What children say will help us improve the program. All children will get a photo album. The school will get a copy to put in the library.

#### Risks

There are no known risks of being in this study. Children can refuse to answer any interview questions. Your child can stop being in this study. You have one month to ask us to not include anything your child said. When children meet as a group, respectful listening will be discussed.

#### Participation

Taking part in the interview is voluntary. Even if you do not consent for your child to be interviewed, they will still get a camera to take pictures. We will develop the film and give them their pictures. Both you and your child must agree for your child to be interviewed.

#### Confidentiality & Anonymity

What your child says will be kept confidential. Your child's name will not be associated with pictures. Information on children's gender, age, and grade level will be grouped together. All information will be stored in a locked file cabinet in a locked office at the University of Alberta. Electronic information will be stored on a password protected computer. Only university researchers will have access to the information. The consent forms, photographs, audio recordings, and transcripts are kept for five years. Then they are destroyed.

#### Further Information

The study coordinator is Fernanda Torres. If you have any questions, please contact her. E-mail: [mtorresr@ualberta.ca](mailto:mtorresr@ualberta.ca), Phone Number: 780-695-2337

The plan for this study has been reviewed by a Research Ethics Board at the University of Alberta. If you have questions about your rights or how research should be conducted, you can call (780) 492-2615. This office is independent of the researchers.

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**Consent to participate**

If I sign this form I agree that my child can be in the study. My child must also agree to be in the study. I have read this information sheet about the study. I had the opportunity to ask questions about the study by contacting the School Principal (Cory Arcand), Dr. Kate Storey, Fernanda Torres or the ethics office at the University of Alberta. If I have questions, they would be answered.

I **AGREE** that my child can participate in the study

\_\_\_\_\_  
Printed Name of Child

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Parent or Guardian

\_\_\_\_\_  
Printed Name of Parent or Guardian

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### **Appendix 3. Information letter and non-consent form**

#### ***To the Parents or Guardians of the children attending the Indigenous Youth Mentorship Program***

Title of the Study: Expanding the Circle: A Peer-led, Resilience-Based Model of Obesity and Diabetes Prevention for Indigenous Youth

Study Coordinator: Maria Fernanda Torres Ruiz, 780-695-2337

Principal Investigator: Dr. Kate Storey, Ph.D, RD, 780-492-9609

#### **Background**

Your child is invited to take part in a project called Photo-voice. In the project, children take photographs with a camera. They will then talk about their pictures. This Photo-voice project is part of the Indigenous Youth Mentorship Program at your child's school. Your school has approved this program. Your child is in this program, so they can be part of Photo-voice.

#### **Purpose**

Children have a vital role in the Indigenous Youth Mentorship Program (IYMP). We want to know what they think of being in the Program. The aim of this study is to improve the Program. We will do this by asking children to take pictures of what reminds them of the Program. By talking about their pictures, we will learn from them.

#### **Study Procedures**

Being in this study involves four steps:

1. First, all children in the program will meet with the researcher and get instructions about the project. We will tell the children about the study and why we are doing it. Each child will get a camera. They will be told how to use it. Your child will be asked to take photos of what the IYMP (the program) means to them.
2. Children will have one week to take pictures of things, people, or scenes that remind them of the IYMP. When they return the camera, we will develop the film. Students will get a copy of their own photos to keep. If your child took pictures of people, the person will give consent for their picture to be used. If they do not agree, their picture will not be used.
3. Your child will be interviewed at the school about their pictures. The interview will be audio-recorded. This will remind us what children said. Children will talk about how their pictures relate to the IYMP. The interview will be about 20-30 minutes. It will take place during school hours or after school. Interviews will be typed.
4. A student from the University of Alberta will read the interviews. She will study what they mean. She will discuss her findings with her professors and the school Principal Keri Card-Esau. A meeting will be held with all children in the study. We will ask them about our findings. An album with the photos will be given to all children.

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#### How the information will be used

This study is being done by the University of Alberta. The School Principal agrees with this study. What we find out may appear in a thesis, reports with the school, scientific papers and presentations.

#### Benefits

Talking with your child will help us to understand the IYMP. What children say will help us improve the program. All children will get a photo album. The school will get a copy to put in the library.

#### Risks

There are no known risks of being in this study. Children can refuse to answer any interview questions. Your child can stop being in this study. You have one month to ask us to not include anything your child said. When children meet as a group, respectful listening will be discussed.

#### Voluntary Participation

Taking part in this study is voluntary. Even if you do not want your child to be in the study, they will get a camera to take pictures. We will develop the film and give them their pictures. All children will continue to be part of the IYMP. Both you and your child, must agree to be in the study. If you or your child has any questions about the study or wants to stop the study, you can contact Dr. Kate Storey at the email address or phone number above.

#### Confidentiality & Anonymity

What your child says will be kept confidential. Your child's name will not be associated with pictures. Only group-level data will be reported. This will include information on children's gender, age, and grade level. All information will be stored in a locked file cabinet in a locked office at the University of Alberta. Electronic information will be stored on a password protected computer. Only university researchers will have access to the information. The consent forms, photographs, audio recordings, and transcripts are kept for five years. Then they are destroyed.

#### Further Information

The student doing the study is Fernanda Torres. If you have any questions about the study, please contact her. E-mail: [mtorresr@ualberta.ca](mailto:mtorresr@ualberta.ca), Phone Number: 780-695-2337

The plan for this study has been reviewed by a Research Ethics Board at the University of Alberta. If you have questions about your rights or how research should be conducted, you can call (780) 492-2615. This office is independent of the researchers.

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**Non-consent to participate**

**If you DO NOT want your child to participate in the study, please complete below.**

I have read this form. If I sign below, my child CANNOT be in the study. If I do not sign below, my child can be in this study if they want to be. I had the opportunity to ask questions about the study by contacting the School Principal, Dr. Kate Storey, Fernanda Torres or the ethics office at the University of Alberta. If I have questions, they would be answered.

I **DO NOT** allow my child to participate in the study described above.

\_\_\_\_\_  
Printed Name of Child

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Parent or Guardian

\_\_\_\_\_  
Printed Name of Parent or Guardian

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#### **Appendix 4. Facebook post for parents**

Facebook Post

To the parents of the children attending the Indigenous Youth Mentorship Program (IYMP) (after-school program):

We are doing a study of the IYMP (after-school program). Children will be given cameras to take photos of things that relate to the program. Children were given information letters with study information to bring home. If you do not want your child to participate in the study, please:

- Call the school
- Send a message to this Facebook page

If you wish more information about the study, please contact Fernanda Torres 780-695-2337 or [mtorresr@ualberta.ca](mailto:mtorresr@ualberta.ca)

## Appendix 5. Photograph consent form

### PHOTOGRAPHY CONSENT FORM

A study is taking place at Kipohtakaw Education Centre. The aim of this study is to improve the after-school program (AYMP). We asked children to take pictures of things that reminded them of the program. A child in the study took a picture(s) of you or your child. We are asking you if it is okay to use this/these picture(s) in:

- Research papers
- Reports
- Presentations
- Photobook

If you do not want this/these picture(s) used in any of the above, we will destroy the photo(s).

In case this/these photo(s) is/are selected for any kind of publication we will ensure that:

- You or your child will not be named

If you wish a copy of the picture(s) or if you have any questions regarding this study, please feel free to contact Fernanda Torres at [mtorres@ualberta.ca](mailto:mtorres@ualberta.ca) or 780-695-2337.

- Yes, I give the Aboriginal Youth Mentorship Program permission to use the following photograph(s) for the purposes stated above:

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- No, I want the photograph(s) to be excluded from this study and to have it/them destroyed.

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Child's name (if child is the one on the picture)

- Please check this box if the **child has given permission** to the use of this/these photographs.

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**PHOTOGRAPHY CONSENT FORM**

A study is taking place at Paul Band School. The aim of this study is to improve the after-school program (IYMP). We asked children to take pictures of things that reminded them of the program. A child in the study took a picture of you or your child. We are asking you if it is okay to use this/these picture(s) in:

- Research papers
- Reports
- Presentations
- Photobook

If you do not want this/these picture(s) used in any of the above, we will destroy the photo(s).

In case this/these photo(s) is/are selected for any kind of publication we will ensure that:

- You or your child will not be named

If you wish a copy of the picture(s) or if you have any questions regarding this study, please feel free to contact Fernanda Torres at [mtorresr@ualberta.ca](mailto:mtorresr@ualberta.ca) or 780-695-2337.

- Yes**, I give the Indigenous Youth Mentorship Program permission to use the following photograph(s) for the purposes stated above:

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- No**, I want the photograph(s) to be excluded from this study and to have it/them destroyed.

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Child's name (if child is the one on the picture)

- Please check this box if the **child has given permission** to the use of this/these photographs.

## Appendix 6. Brainstorming session layout

### Photovoice Brainstorming Session Overview

#### Brainstorming Session to Orient Students to the Research

1. Introductions
  - From the University of Alberta and doing a research project
  - “Before we get to the cameras, I need your help with some brainstorming...”
2. We want to learn more about your experience with the A/IYMP (after-school program)
  - Share your experiences/past activities
  - What makes the A/IYMP special/different?
  - Reference Youth Mentors or Young Adult Health Leader (YAHL’s)
3. Individual Brainstorming (3 minutes)
  - Everyone gets a piece of paper
  - Brainstorm, what is the A/IYMP?
4. Introduce the word web
  - Example re: winter
    - Activities: sledding, skating, making snowman
    - Clothes: mittens, coat, snow pants, toque
    - Weather: cold, snow, windy, icy
  - Groups of 4-5; one paper and marker
  - 5 minutes to make a word web of “What is the A/IYMP?”
5. Go around to groups and listen to conversations and suggestions
6. Group discussion: Popcorn sharing
  - Groups share responses
  - Write on the white board/paper
7. Introduce research
  - “We just talked about ‘What is the A/IYMP’. Now I need your help to learn What the A/IYMP means to you.
  - Each mentee will get 1 camera to take home and take pictures of ‘What the A/IYMP means to them’
  - Brainstorm 3 things that we can take pictures of. (Note: indicate that students should take pictures that include more than just the program’s delivery)
8. Hand out photo-taking instructions
  - Go through as a class
  - Emphasize in asking for assent when taking pictures of other people
9. Camera DEMO
  - Hold flash button until light shines
  - Wind the dial until number goes down
  - Look through the window
  - Press button at the top of the camera (demo)
10. Give out information letters and consent or non-consent forms.
11. Give students a camera. Practice holding down the flash but DON’T wind the dial!
12. Everyone writes their names on their cameras.

## Appendix 7. Photo-taking instructions

### Photo-taking instructions

Your mission is to use your camera to take photos that answer the following question:

*What the A/IYMP means to you?*

Please remember the following rules

- Take at least 20 photos.
- If you take a picture of a person, please ask for permission first.
- Stay safe when taking photos! For example, don't stand on a wobbly chair to take a picture.
- Pictures should be clear (not blurry) and represent an answer to the question. Remember you will be asked to explain the reason why you took your photos.
- Ask your parents or an elder if it is okay to take pictures at community events.



There are no wrong answers or ideas. Be creative and have fun taking your photos! It is your job to ensure your camera is returned to any members of the AYMP staff by (date).



## Appendix 8. Photovoice interview guide

### Photovoice interview guide

Child Name	
School Name	
Participant's code	
Grade level	
Gender	
Age	
Time participating in the AYMP/TYMP	

Introductory speech: Hello, my name is Fernanda and I'm part of the evaluation group of the after-school program (AYMP/TYMP) you have been attending for the past few weeks. You are - the name of the person-, right? So, here are the pictures you took for the project we talked about before and, if it is ok with you I would like to know a little bit more about these photos. If you agree, I will like to make you some questions. As you knew before, we will be recording your answers. We like keeping everything private, so that means nobody will know you are the person who took these pictures.

#### 1. Selecting

- a. Ask: From the pictures you took, can you select 5-6 pictures that best represent what the A/TYMP mean to you?
  - Interviewer: please label these photos 1-6 with post-it notes accordingly, in order to correctly reference photos during data analysis.

#### 2. Contextualizing:

Students explain each of the photos and are encouraged to tell a story to describe the situation and why they took the pictures.

- a) Guiding questions (for each photo)
  - a. What do you see here?
  - b. What is happening in this picture?

- c. Why did you take this picture?
- d. How does this picture make you feel?
- e. How is this picture related to the A/TYMP?
  - i. Probe: Does this picture remind you of something you have done at the A/TYMP?
  - ii. Probe: Is the picture something you learned at the A/TYMP?

**General Discussion Questions about the Circle of Courage Philosophy:**

- What does the A/TYMP mean to you?
  - a. Probe: What does it mean to be part of it?
- What does it mean to you to live a good life?
- How is the A/TYMP helping you to live a good life?
- Tell me how participating in the AYMP/TYMP makes you feel. (Independence)
- Has participating in the AYMP/TYMP made you proud of your community? (Belonging)
- What new things have you learned in the A/TYMP? (Mastery)
- What have you learned about helping others from being part of the AYMP/TYMP? (Generosity)

**3. Codifying:**

- a. Group ideas together with the help of the student, if possible.
  - Are any of these pictures similar? How so?
- b. Give a name to each of the selected pictures.
  - Can you give a name to all the pictures we discussed today?

Example of an ending speech: Thank you very much for your time and your explanations, we really do appreciate them. Everything you have said today will help us to improve the program. I hope you have a nice day!