Developing a More Culturally Appropriate Approach to Surveying Adverse Childhood Experiences Among Indigenous Peoples in Canada

by

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Authors declaration:

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners. I understand that my thesis may be made electronically available to the public.

Abstract

Introduction: Adverse childhood experiences (ACE) are (in a dose-dependent manner) associated with both health-risk behaviours and the development of chronic disease, and thus pose a significant threat to health and well-being. However, current ACE survey methods fail to adequately capture the adversities that some social, or ethnic groups have experienced. In particular, very few investigations have studied ACE among Indigenous populations, and those that have tended to focus on the prevalence of ACE, not on the appropriateness, or precision of the tools used for its measurement. The study was an attempt to answer two primary research objectives. The first was to investigate whether Indigenous people living in Canada would endorse domains of adverse childhood experiences not currently captured by the conventional ACE survey instrument. The second was to understand the factors or sources of resiliency and healthy coping strategies in regard to reducing the effects of childhood adversities and traumas among Indigenous people.

Methods: Qualitative interview and focus group methodologies were utilized and adapted to integrate aspects of the nominal group technique (NGT) and of First Nations Sharing Circles. A total of 16 participants were recruited for the study (focus group n=4, interviews n=12). Thematic analysis was applied to the qualitative data generated from the interviews and focus group, and quantitative descriptions of the data generated through the NGT process were used to compare within group differences based on demographic characteristics.

Results: Study findings highlighted five domains of ACE, each with numerous subthemes, relevant to Indigenous children living in Canada, including exposure to historical trauma, a lack of infrastructure and basic public services, household and community dysfunction, gender-based adversities, and racial discrimination. Although there were some similarities in the themes and

subthemes in comparison to conventional ACE domains, many experiences shared were not currently captured by conventional ACE surveys. Additionally, four domains of healthy coping mechanisms and/or resiliency factors with many subthemes were identified, including healing from trauma, improving cultural connections, strong social networks, and a bevy of personal attributes.

Conclusions: When undertaking such investigations an appreciation for the sociological and historical factors in many Indigenous communities and families, regardless of direct personal exposure, is required. Investigating exposure to additional adversities, such as historical traumas, a lack of public infrastructure and services, and events of racial discrimination is necessary to include when surveying ACE among Indigenous children as well. This is in addition to the conventional domains captured by ACE surveys, including sexual assault, gender-based violence, and household dysfunction items. Program planning, and resources should be directed to service providers that can offer Indigenous-based counselling, cultural programming, networking opportunities, and skill development for Indigenous people with exposure to ACE to further build healthy coping mechanisms and greater resiliency. Study findings point to the need for shift in approach to acknowledge and address the socioecological and historical factors in the health, social, and legal service sectors that engage with Indigenous individuals or communities with ACE exposure. Further investigation is necessary into other potentially relevant domains of adversity, as well as testing of an expanded ACE survey measure among different Indigenous communities or groups.

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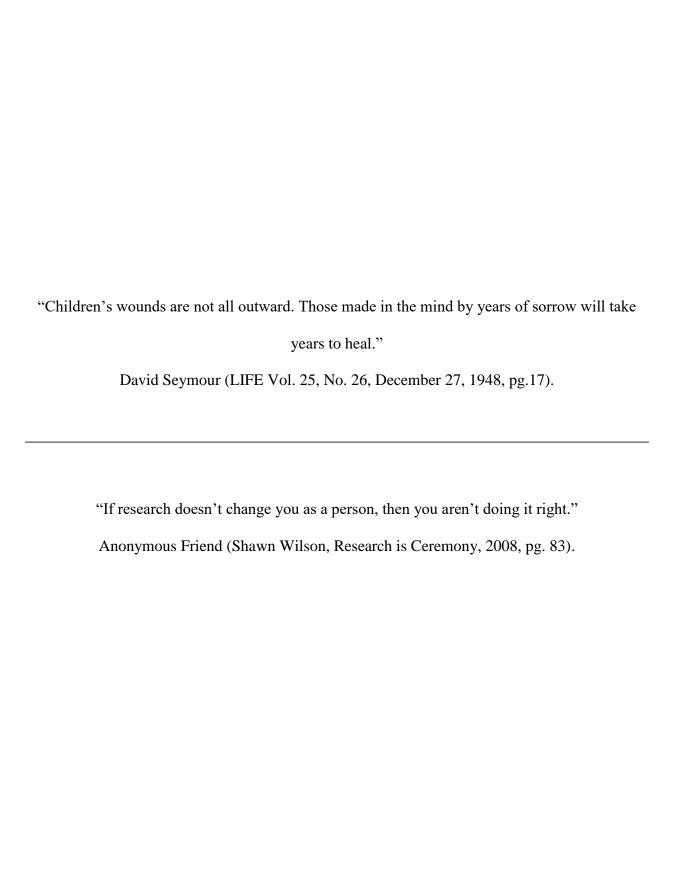
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1. Introduction

Adverse childhood experiences (ACE) are traumatic, or stressful events that include, but are not limited to, experiencing or witnessing physical or sexual abuse, physical and emotional neglect, and exposure to substance abuse in the household (Felitti et al, 1998). ACEs are quite widespread, although not equally distributed, across the general population. Investigations of ACE prevalence have found that anywhere from 52% to 67% of people have exposure to at least one ACE, depending on the social, or economic context of the group being studied (Felitti et al, 1998; Burke et al, 2011; Giovanelli et al, 2016). ACEs often occur in clusters, since surrounding contexts and variables that increase potential exposure to any one domain of ACE increase the likelihood of exposure to other domains of ACE as well (Bjorkenstam et al., 2013). As well, previous research has shown that individuals exposed to early life adversity are more likely to experience similar stressors, or traumatic contexts in adulthood (Hager & Runtz, 2012). Depending on the population studied 6% - 17% of those with ACE exposure have been exposed to 4+ ACE events, and suffer a larger cumulative burden since there is a proven dose-response relationship between increasing ACE exposures and developing poor health outcomes (Felitti et al, 1998; Burke et al, 2011; Giovanelli et al. 2016; Damodaran & Paul. 2017).

ACEs are of particular importance to public health since individuals with exposure to ACE are more likely to develop chronic diseases and health harming behaviors in adulthood than those with no ACE exposure, and that ACE exposure is disproportionately distributed among vulnerable and marginalized populations (Felitti et al, 1998). Significant, or repeated childhood adversities can negatively influence health trajectories and increase the chances of developing serious physical and psychosocial disorders. For example, ACEs have been linked to increased risk of many chronic diseases, such as heart disease, cancer, diabetes, and bronchitis, COPD, or depression, anxiety, and

attempted suicide. ACEs have also been linked to increased chance of developing health harming behaviours, or states such as smoking and substance abuse. These health harming behaviours are not only risk factors for developing the illnesses noted above, but also to other aspects of well-being, such as educational attainment and economic productivity. ACEs can even influence pregnancies by decreasing birth weight and gestational age of newborns, which are both major factors in determining the health trajectory of children as they age (Smith et al, 2016).

As noted earlier, exposure to ACEs are not evenly distributed across populations. Investigations into ACE prevalence have shown that communities of low socioeconomic status and visible minority groups often experience higher prevalence and subsequent cumulative ACE burdens (Burke et al, 2011; Giovanelli et al, 2016). The original ACE study, with a predominately white, middle class sample, reported 52% of participants experienced at least 1 ACE and 6% of participants experienced 4, or more ACEs (Felitti et al, 1998). However, a study that sampled from a low income and incredibly neglected neighbourhood in San Francisco reported that 67% of participants had exposure to at least one ACE, and 12% had exposure to 4 or more ACE (Burke et al, 2011). Similarly, an investigation into ACE prevalence in a neighbourhood of Chicago with a predominately African-American population reported 62% of participants had exposure to at least one ACE, and 13% of had exposure to 4, or more ACE (Giovanelli et al, 2016).

Studies of marginalized communities in developed countries have also reported ACE domains beyond those included in the original survey (Cronholm et al., 2015; Wade et al., 2014). For example, a study from Philadelphia, where 61% of the sample identified as either African-American, Hispanic, Asian-American, or other visible minorities, reported expanded domains of ACE domains that included witnessing violence, racial discrimination, living in an unsafe neighbourhood, and severe bullying (Cronholm et al, 2015). Another study from Philadelphia that

described their sample as 95% non-white reported that neighbourhood crime, violence, and death were perceived as prevalent child adversities, as well as racial discrimination, and exposure to juvenile justice, or child welfare systems (Wade et al, 2014). Although the evidence suggests there are cultural and economic differences in prevalence and types of ACE, there is little variation in the actual approaches to understanding ACE exposures and overcoming ACE burdens, especially when looking at Canadian communities.

Further exploration of these differences may be of relevance to Indigenous communities in Canada, who have been burdened with social and economic barriers and contexts that have been shown to result in higher prevalence of ACEs. The intergenerational transmission of historical traumas, such as the Indian Residential School System and The 60's Scoop, are significant contributors to current public health issues, including the relatively high rates of abuse and neglect experienced by Indigenous children (Bombay, Matheson, & Anisman, 2011). There is great variation throughout Indigenous communities in Canada, but they are more likely than other communities to suffer from poverty, poor housing and infrastructure, low employment, underfunded education, discrimination, victimization, and other social injustices (Blackstock, Trocme, & Bennett, 2004; Bombay, Matheson, & Anisman, 2011). The cumulative impact of historical and current oppression and traumas are some of the major factors in explaining why Indigenous peoples, on average, experience a reduced life expectancy and increased rates of diabetes, heart disease, depression, suicide, substance abuse, and overall lower health status (Raphael, 2016). There are considerable differences amongst Indigenous peoples across the country, both on- and off- reserves, but, on average, Indigenous peoples are twice as likely to die prematurely, be diagnosed with diabetes, experience depression, and are 5 to 11 times more likely to attempt suicide than non-Indigenous peoples (Health Canada, 2010; Health Canada, 2016). Exploring the

role childhood adversities play in the health of Indigenous communities may help to explain some of the pathways that have caused Indigenous peoples, on average, to experience worse health than non-Indigenous people in Canada.

A better understanding of the prevalence and types of ACE present in Indigenous communities coincides with the opportunity to better understand the coping skills or supports that reduce the chance of severe health consequences in Indigenous individuals who do have ACE exposure. Resiliency, or coping strategies are often contextual and are influenced by many dimensions, such as individual experiences, culture, and community, as well as the type and severity of the adversity (Kirmayer et al., 2011). Investigations into the availability of psychosocial health services and programs have shown that accessing relevant cultural supports, or culturally aware services and programs, are major predictors of overall resiliency and healthy coping strategies as well (Restoule et al, 2013; Shield, 2004). Previous research has also identified positive social supports and interactions as beneficial to coping with social adversities or discrimination, and that lack of social supports and interactions can worsen the consequences of adversity (McQuaid et al., 2015). Social support involves aspects of emotional supports, tangible supports, mentors, and a sense of belonging; strong social support is recognized as a major factor in reducing poor physical and psychosocial health outcomes (Canadian Mental Health Association, 2017). However, similar to the level of research on ACE in Indigenous communities, there have been relatively few investigations into the impact of coping skills on the health and well-being of Indigenous peoples in Canada (Richmond, Ross, & Egeland, 2007; McQuaid et al, 2015).

The main objectives of this pilot study were to better understand the adverse experiences that Indigenous post-secondary students may have been exposed to in childhood, and the factors

that they perceive as positively influencing resiliency and the development of healthy coping strategies. More specifically, this thesis project aimed to address the following research objectives:

- To investigate whether Indigenous peoples living in Canada would endorse domains of adverse childhood experiences not currently captured by the conventional ACE survey instrument.
- 2. To understand the factors or sources of resiliency and healthy coping strategies in regard to reducing the effects of adversity or childhood trauma in adulthood.

To address the research objectives, I conducted 12 semi-structured interviews with Indigenous post-secondary students and Indigenous Student Centre employees from the University of Waterloo (UW) and Wilfred Laurier University (WLU), in Waterloo, Ontario. As well, I conducted 1 focus group (n = 4 participants) with Indigenous post-secondary students from the University of Waterloo that discussed the same research questions. Descriptive quantitative analysis was conducted to compare the relative impact that ACEs were given between participants, and to identify the most impactful experiences that all participants shared. Qualitative thematic analysis using NVivo 11 software was employed to organize and group the ACE exposures identified as relevant to Indigenous post-secondary students, as well as the people, places, and services thought to improve coping skill and overall resiliency.

1.1 Personal Statement

It is important to state my position and location as a researcher entering the space of Indigenous knowledge systems, peoples, and experiences. This project was conducted on the traditional territory of the Attawandaron (Neutral), Anishinaabe, and Haudenosaunee peoples. As a student at the University of Waterloo it is important to understand and acknowledge that campus is situated on the Haldimand Tract, the land promised to the Six Nations that includes six miles on

each side of the Grand River from Lake Erie to the river head. Originally set as 950,000 acres the Six Nations today only have approximately 48,000 acres of the original tract (Six Nations Council, 2008). As a non-Indigenous (Euro-Canadian) researcher, I have no lived experience or personal understanding of life as an Indigenous person in Canada, and as such, am limited in my ability to interpret the impact of the adverse events and experiences shared by participants on Indigenous peoples. I continue to look for ways to have more inclusive, involved, and have representative research relationships and processes, but there is much work to be done and this study is by no means perfect. A significant personal practice continued throughout this study has been to locate myself, my role, and this project within the relationships and spaces I have gratefully been able to share with the study partners and participants while doing this project. Trying to define the limits and boundaries of what I do know and what I do not know, what I can bring to the table and what I cannot, and my personal perspective (especially within academia) helps communicate that the way I see and understand the world of research and knowledge is only one of many perspectives. I am extremely thankful and appreciative of the efforts of facilitators, community leaders, students, and other members of the Kitchener-Waterloo Indigenous community for educating me when it was not their responsibility, welcoming and having me in their spaces when they were not obligated to host, and establishing friendships that will last much longer than any project.

1.2 General Outline

The next chapter contains a literature review describing the adverse childhood experiences and coping strategies relevant to Indigenous communities, as well as previous studies and investigations on the topics with Indigenous peoples. Chapter 3 outlines the justification and rationale for pursuing this study. Chapter 4 explains the methodological approach and study design employed for the data collection, and the recruitment strategy and inclusion criteria for potential

participants. The analytic approach and methodologies for both quantitative and qualitative data are outlined in Chapter 5. Chapter 6 provides both the descriptive analysis and thematic analysis of both quantitative and qualitative results. Chapter 7 contains a discussion of the results and analysis and summarizes the main conclusions and insights from the investigation. Lastly, the final conclusions, recommendations, and implications for future research are stated in Chapter 8.

2. Literature Review

2.1 Population Demographics

Indigenous peoples in Canada are people who identify as First Nations, Métis, or Inuit. 58.5% of Indigenous people identified as First Nations, 35.3% identified as Métis, and 6.1% as Inuit in 2016 (Statistics Canada, 2017). Inuit, which compose the smallest Indigenous group in Canada, have a unique and vibrant culture that has survived for centuries in the geographically isolated communities of Inuit Nunangat (Turner, Crompton, & Langlois, 2011). Inuit Nunangat are the arctic homelands of northern Quebec and Labrador, Nunavut, and the northeastern Northwest Territories that are home to 75% of Inuit people in Canada (Turner, Crompton, & Langlois, 2011). Métis trace their history and culture to the initial unions between Indigenous peoples and early European settlers, most often between Indigenous women and European men (Ouellet & Hanson, 2009). Diverse and distinct Métis communities and cultures are rooted across Canada, though some media or government institutions will apply the term Métis to any individual with mixed Indigenous-European ancestry (Ouellet & Hanson, 2009). First Nations peoples are Indigenous people of Canada who do not identify as Métis or Inuit, and there are over 600 distinct First Nations, or bands, speaking over 60 different languages throughout the country (Turner, Crompton, & Langlois, 2011). However, these three ethno-cultural groups are an oversimplification of the hundreds of unique and diverse Indigenous communities and cultures in Canada.

Approximately 75% (637,660) of First Nations people (Turner, Crompton, & Langlois, 2011) are "Registered Indians", a federal status that has historically excluded the Métis and Inuit populations in Canada (Ouellet & Hanson, 2009). "Registered Indian" is a legal designation, by which people are registered by the Crown under the Indian Act amendments of 1951, as individuals

who meet the criteria of being Indigenous and are therefore accorded particular "status" rights. While the Indian Act places legal and fiduciary responsibilities for Indigenous peoples on-reserve with the federal government (Ouellet & Hanson, 2009), it is much more complex for off-reserve status First Nations, Métis, and Inuit populations, since the same rights and benefits are not equally applied.

The Indigenous population is one of the fastest growing subpopulations in Canada: between 1986 and 2006 the population of individuals who identified as Indigenous grew by 98% (Guimond, Robitaille, & Senécal, 2014). Between 2006 and 2011 the census Indigenous population grew four times as fast as the general population, 20% annual growth compared to 5%, and in 2016 1,673,785 individuals reported Indigenous identity, approximately 4.9% of the total Canadian census population (Turner, Crompton, & Langlois, 2011; Statistics Canada, 2015; Statistics Canada, 2017). However, this is markedly different than the population that has Indigenous ancestry. Only since 1996 has the census determined population estimates using selfidentity as the primary factor (Guimond Kerr, & Beaujot, 2004). In 2011 1,836,035 individuals reported Indigenous ancestry, since some individuals who have Indigenous ancestry may not actually identify with Indigenous cultures or communities, and don't recognize themselves as Indigenous. In Ontario, 301,425 individuals (approximately 2.4% of the provincial population) identified as Indigenous people in 2011; of these, 66.7% identified as First Nations, 28.5% identified as Métis, and 4.8% identified as Inuit, having multiple Indigenous identities, or an identity not currently measured. These individuals represented 21.5% of people who identify as Indigenous in Canada (Turner, Crompton, & Langlois, 2011). The largest population of First Nations people living off reserve is in Ontario, and the proportion of the First Nations population living off reserve, at 77%, is second highest of all the provinces (Turner, Crompton, & Langlois, 2011).

The Indigenous population in Canada is significantly younger than the non-Indigenous population as well (Table 1). The proportion of the population that is under 25 in the Indigenous population is 46.2%, compared to 29.5% in the non-Indigenous population (Turner, Crompton, & Langlois, 2011). More specifically, the median age of the First Nations population is 26 years old and 30.4% of individuals are 14 or under. The median age of the Métis population is 31 years old and 23.1% of individuals are 14 or under. The median age of the Inuit population is 23 years old and 33.9% of individuals are 14 or under (Statistics Canada, 2015). In comparison, the median age of the non-Indigenous population is 41 years old and 16.5% of individuals are 14 or under (Statistics Canada, 2015). Overall, 7% of all children in Canada are Indigenous and the median age of the Indigenous population, 28, is 13 years younger than that of the non-Indigenous population (Statistics Canada, 2015; Turner, Crompton, & Langlois, 2011).

Before the mid-20th century there were few Indigenous individuals or communities reported in urban centres. In 1951, only 6.7% of the Indigenous population lived in an urban setting, as shown in Table 2, though this may be an under-report given the marginalization of individuals who identified as Indigenous (Newhouse & Peters, 2003). Dispossession from prime Indigenous lands for urban settlers, and the establishment of purposefully distant and isolated First Nations reserves, restricted Indigenous peoples to more rural and remote regions. Until the late-20th century, Indigenous peoples and urban centres were often mistakenly seen as incompatible (Newhouse & Peters, 2003). As a result, there is little historical data on the health and well-being of Indigenous peoples in Canadian urban centres (Government of Canada, 2006). However, as the general Canadian population has become more urban and the mobility of Indigenous individuals

and cultures has increased, so too has the urban Indigenous population. From 1996 to 2001 the Indigenous population living rurally, whether on or off reserve, increased by 14%; in that same time frame the Indigenous population living urban increased by larger amounts - in small urban areas by 23% and in large urban areas by 26% (Newhouse & Peters, 2003). By 2006, 53% of the Indigenous population lived in an urban setting (Table 2) (Newhouse & Peters, 2003; Indigenous and Northern Affairs Canada, 2010). In 2011, 62.4% of First Nations people lived off reserve, of which 60.8% had status as a 'Registered Indian'. Of the 37.6% who lived on reserve, 98.2% had status as a 'Registered Indian' (Turner, Crompton, & Langlois, 2011).

In 2005, it was reported that 70% of Indigenous children (aged 1-14) were living off-reserve (Turcotte & Zhao, 2004; Statistics Canada, 2004). In 2006, 47,000 First Nations children were under the age of 6 and living off reserve, 78% of which were living in an urban area (O'Donnell, 2008). In 2006, 28% of the urban Indigenous population was aged 15 years or younger compared to just 17% of the urban non- Indigenous population (Table 2) (Indigenous and Northern Affairs Canada, 2010).

2.2 Health Status

Indigenous peoples have long suffered reduced health indicators and worse health status compared to their non-Indigenous counterparts, in Australia, New Zealand, the United States, and Canada (Turner, Crompton, & Langlois, 2011; Findlay & Janz, 2012; The University of British Columbia, 2009). The cumulative impact of inadequate determinants of health results in reduced life expectancy, and increased rates of diabetes, heart disease, depression, suicide, substance abuse, and overall lower health status on average for Indigenous peoples (Raphael, 2016). Negative health behaviours that can be prevalent in the Indigenous population are rooted in a history of oppression, trauma, and marginalization. Colonial forces are still present in the modern Canadian context in

many forms, perhaps most notably as prejudiced and discriminatory legislation and structures that place societal barriers to true health equality (Czyzewski, 2011; National Aboriginal Health Organization, 2011). The pervasive structural inequities that disproportionately burden Indigenous individuals and communities result in Indigenous people being more likely to experience poor social health factors such as housing, education, healthcare access, and employment opportunities (Czyzewski, 2011).

Indigenous peoples living in Canada suffer a reduced life expectancy compared to the non-Indigenous population. On average, Indigenous men and women live approximately 7.5 and 5 years less than their non-Indigenous counterparts, respectively (Health Canada, 2014). Recently, improvements have been made, 8 and 8.6-year increases from 1980-2000 for Indigenous men and women, respectively (Health Canada, 2014). First Nations individuals (aged 25 to 75) are more likely to die from treatable and preventable disease and illness than non-Indigenous Canadians. First Nations people were 1.9x more likely to die prematurely, and 2x as likely to die prematurely from a treatable, or preventable condition (Park et al., 2015). As shown in Table 3, in 2011 the percentage of First Nations (60%), Métis (64%), and Inuit (53%) people self-reporting excellent, or very good mental health was lower than the non-Indigenous population (72%) (Statistics Canada, 2015). A gap between Indigenous children and non-Indigenous children is also apparent: 90% of parents with non-Indigenous children aged 5, or under, rated their health as either very good, or excellent, compared to 83% of parents with Indigenous children. Although the differences are reduced there is still a gap that continues through early adolescence, where 86% of parents with non-Indigenous children aged 6-14 rated their health as either very good, or excellent, compared to 82% of parents with Indigenous children (Statistics Canada, 2004).

Indigenous populations in Canada experience higher rates of chronic, non-communicable disease and a general lower health status than non-Indigenous Canadians. In 2014, 48% of Indigenous people reported at least one of the ten main chronic diseases: heart disease, cancer, stroke, asthma, COPD, diabetes, arthritis, Alzheimer's or dementia, depression, and anxiety; in contrast, 38.4% of non-Indigenous Canadians reported at least one of the ten main chronic diseases (Public Health Agency of Canada, 2015). Table 4 describes the difference in prevalence of select health behaviours and outcomes between Indigenous and non-Indigenous individuals living in Canada. In 2004, approximately 9% of all Indigenous populations had been diagnosed with diabetes over their lifetime, compared to 4% in the non-Indigenous population. In Canada, First Nations people were reported to have the highest prevalence of diabetes, 11% of men and 17% of women (Canadian Institute for Health Information, 2004). The 2008 Canadian Community Health Survey (CCHS) found that approximately 25% of First Nations adults living off-reserve self-report as obese, compared to approximately 17% of non-First Nations adults (Public Health Agency of Canada, 2011, 2012). In the same investigation it was reported that 6.7% of First Nations youth aged 12-17 self-report as obese, compared to only 4.4% of non-Indigenous youth (Public Health Agency of Canada, 2011). Also in 2004, 5.7% of Indigenous individuals had reported heart problems, compared to just 4% of non-Indigenous individuals. Again, First Nations people were most likely to have heart problems, which were prevalent in 13% of men and 11% of women (Canadian Institute for Health Information, 2004; Reading, 2015). HIV prevalence in the Indigenous population (486.9 diagnoses per 100,000) is approximately 2.5 times greater than the non-Indigenous population as well (195.7 diagnoses per 100,000) (Public Health Agency of Canada, 2014).

In 2001, Indigenous people living in Canada were almost twice as likely to suffer a major episode of depression than non-Indigenous people, 16% versus 8% of the respective populations (Government of Canada, 2006). Deaths due to suicide are consistently between 5 to 7 times greater for First Nations youth than non-First Nations youth, and in some Inuit communities 11 times greater than non-Inuit youth (Health Canada, 2010; Health Canada, 2016; Chansonneuve, 2007).

Poor individual health behaviors can be more prevalent across Indigenous peoples than non-Indigenous Canadians as well, due in part to the impacts of long-standing trauma and societal marginalization. In 2004 approximately 4 of 10 Indigenous people living in Canada reported being a smoker while approximately 2 of 10 of non-Indigenous people in Canada reported being a smoker (Canadian Institute for Health Information, 2004). Twice as many Indigenous youth (individuals age 12 or older) living off-reserve report smoking daily than non-Indigenous youth (Table 4) (Statistics Canada, 2015). Also, 32.7% of Indigenous youth living off-reserve report drinking heavily (5+drinks/outing, 1< times per month, over a 12 month period), compared to 22.5% of non-Indigenous youth (Statistics Canada, 2015). In the 2008-2010 First Nations Regional Health Survey 9.8% of First Nations adults drinking heavily (5+drinks/outing) on a weekly basis compared to 8.0% of the total population (Health Canada, 2014). Deaths due to alcohol consumption in the Indigenous population are twice the number of deaths due to alcohol consumption in the non-Indigenous population, per 100,000 people (Chansonneuve, 2007). Deaths due to illicit drug abuse in the Indigenous population are 3 times the number of deaths due to illicit drug abuse in the non-Indigenous population, per 100,000 people (Health Canada, 2010).

Exposure to disadvantaged socioeconomic contexts that negatively influence healthy development, such as poor housing, poverty, and assault, can be more frequent for Indigenous peoples too. Although Indigenous children 14 and under account for only 7% of all children in

Canada, Indigenous children accounted for approximately half of the 30,000 children in foster care across Canada in 2013 (University of Ottawa, 2016.). Research has shown that youth who are exposed to the foster care system are significantly more likely to have experienced abuse and neglect (Fratto, 2016). Even though only 0.3% of non-Indigenous children have been in the foster care system, nearly 4% of Indigenous children have been, or currently are, in the foster care system (Table 4) (Turner, Crompton, & Langlois, 2011; University of Ottawa, 2016). It is estimated that up to half of "Registered Indian" children may be living in poverty (Assembly of First Nations, 2011). Furthermore, Indigenous men and women are 2-3 times more likely to live in low-income status than non-Indigenous men and women in Canada (Canadian Human Rights Commission, 2010).

In 2009, 12% of Indigenous individuals reported being the victim of at least one non-spousal violent crime, more than double the reports of non-Indigenous individuals (5%) (Statistics Canada, 2015). Indigenous people are twice as likely as non-Indigenous people to be a victim of physical assault, 90 incidents per 1,000 people compared to 47 incidents per 1,000 people (Boyce, 2016). Indigenous women are almost 3x as likely to be victims of spousal abuse than non-Indigenous women (Chansonneuve, 2007; Raphael, 2016). Indigenous women are significantly more likely to be victimized than non-Indigenous women, both within and out of the household (Boyce, 2016; Harper, 2006; Raphael, 2016). On average Indigenous populations experience almost 3 times greater sexual assault incidents than non-Indigenous populations, 58 incidents per 1,000 people compared to 20 incidents per 1,000 people (Boyce, 2016). While only 6.3% of non-Indigenous men and 5.8% of non-Indigenous women in Canada reported being the victim of a hate crime, 7.7% of Indigenous men and 8.6% of Indigenous women have reported hate crime victimization (Canadian Human Rights Commission, 2010).

2.3 Adverse Childhood Experiences

There is a growing body of literature examining the relationship between childhood adversity and poor health outcomes in adulthood. The original adverse childhood experiences (ACE) study, started in the mid-1990's, showed a dose-response relationship between child maltreatment and/or household dysfunction, and increased risk of the leading causes of morbidity and mortality in developed countries (Felitti et al., 1998). Seven domains of ACE were investigated: physical abuse, emotional abuse, sexual abuse, violence against mother, and living with household members who were mentally ill or suicidal, substance abusers, or have ever been incarcerated (Felitti et al., 1998). More than half (52.1%) of participants were found to have exposure to at least one ACE, and 6.2% experienced 4 or more ACEs. The prevalence of each ACE domain ranged from 3.4%, living with household members who have been to prison, to 25.6%, living with household members who were substance abusers (Felitti et al., 1998). The prevalence of behavioral health risk factors linked to increased morbidity increased as the number of ACE increased.

The original ACE study investigated ten health behaviour risk factors: current smoking habits, severe obesity, sedentary/no physical activity, depressive state, suicide attempts, alcoholism, illicit drug use, injection drug use, 50+ sexual partners, and any incidence of sexual transmitted diseases (Felitti et al., 1998). In a comparison to those with no ACEs, those with 4+ ACEs were significantly more likely to have poor health behaviors (Table 5). Some significant findings included that when compared to those with no ACEs, those with 4+ ACEs were: 2.2x more likely to currently smoke, 1.6x more likely to be severely obese, 4.6x more likely to experience depressive states, 12.2x more likely to attempt suicide, 7.4x more likely to experience alcoholism, 4.7x more likely to use illicit drugs, and 10.3x more likely to be injection drug users

(Felitti et al., 1998). For those with no ACEs it was found that 56% had 0 of the 10 risk factors, while only 14% of those with 4+ ACEs had no risk factors (Felitti et al., 1998). Only 1% of those with no ACEs had 4+ risk factors, compared to 7% of those with 4+ ACEs (Felitti et al., 1998).

Eight disease conditions, heart disease, cancer, stroke, chronic bronchitis or emphysema, diabetes, skeletal fractures, hepatitis or jaundice, and fair to poor self-rated health, were investigated for their relationship to ACEs (Felitti et al., 1998). In comparison to those with 0 ACEs, the prevalence of morbidity and mortality due to chronic disease was increased significantly in those with 4+ ACEs (Table 6). Some important findings included that those with 4+ ACEs were: 2.2x more likely to have heart disease, 2.4x more likely to experience a stroke, 3.9x to live with chronic bronchitis or emphysema, 1.6x more likely to develop diabetes, and 2.2x more likely to have fair or poor self-rated health (Felitti et al., 1998). The impact that preventable adverse childhood experiences have on individual health, community well-being, and services is immense.

There is also evidence that many mental health issues, including depression, bipolar disorder, schizophrenia, and post-traumatic stress disorder (PTSD), are more prevalent in those with adverse childhood events (Gould, 2012). Exposure to ACE has also been linked to learning and behaviour problems and subsequent reduced educational attainment. Pediatric learning and behavioural problems were diagnosed more often in children with exposure to 4 or more ACEs (51.2%), than those with exposure to no ACEs (3%) or 1-3 ACE domains (20.7%) (Wade Jr. et al., 2014).

2.3.1 Biological Plausibility

The biological mechanism by which adversity becomes embedded and causes alterations to physiological processes involves stress responses and other hormonal systems. When the human

stress system is activated, there is a release of the hormone cortisol from the hypothalamicpituitary-adrenal axis (HPA). The concentration of cortisol varies by time of day, individual characteristics, and can fluctuate regularly. The HPA axis and other hormonal systems produce a cascade of changes that establish our 'fight or flight' survival response as a reaction to environmental stressors. However, when the stress system is initiated constantly, and in response to events that are not immediately life threatening, the 'fight or flight' survival response becomes a burden of hyper-arousal (Harvard University, 2016; Koss et al., 2016). Experiencing significant adversity during childhood, when physiological development is still occurring, can cause even more alterations and long-term disruption of the HPA axis. The abnormally high levels of cortisol, especially over long periods of sustained stress in childhood, can affect an individual's mood and behavior, learning and memory processes, and still developing physiological systems (Cicchetti et al., 2010). An altered stress response has been proven to have an effect on individual's heart rate, blood pressure, immune system, as well as function of the hippocampus, amygdala, and prefrontal cortex (PFC), among other organs or neuro-regions (Gerson & Rappaport, 2013). High levels of chronic childhood stress have been shown to cause neurobiological damage to brain structure and function, particularly the prefrontal cortex where risk and behavior regulation occurs (Heim & Nemeroff, 2001). When childhood adversity alters the hormonal and stress responses it can, over time, increase an individual's likelihood of developing poor health behaviors or problems, and chronic health conditions or disease.

2.4 Expanded Domains of Adverse Childhood Experiences

Further ACE research has shown there are expanded adversity domains that are significant in specific populations and worth incorporating into studies of ACE (Table 7). The original screening survey, due to the exploratory nature of the research, was purposefully broad and much

of the available research has stemmed from the original ACE study data, which were collected primarily from Caucasian-American (79.8%), middle class, college educated individuals living in an American suburban environment (Felitti et al., 1998; Cronholm et al., 2015). The results of the study reported that the race category 'Other' had the lowest percentage of participants with no ACE (41%) and highest percentage of participants with 4 or more ACE (12.1%) (Felitti et al., 1998). As a result, more recent and representative studies are focusing on investigating ACEs within other ethnic and socioeconomic populations.

Research has shown that the original ACE survey lacks predictors that have been proven influential in specific and unique groups outside of the aforementioned sample (Finkelhor, 2013; Wade et al., 2014; Cronholm et al., 2015; Giovanelli, 2016; Nyborg & Curry, 2003). Numerous American studies have discussed the need for more diverse and expansive surveys and scales when assessing adversity; specifically, surveys designed to explore group-specific adversities are needed (Wade et al., 2014; Finkelhor, 2013; Cronholm et al., 2015; Giovanelli, 2016).

For example, a 2008 survey of American youth, where 38.6% identified as African-American, Hispanic, or another non-European ethnicity, found that witnessing community violence and peer victimization were perceived as influential to the mental health of adults and children, but these adversity domains are not included on the original ACE survey (Finkelhor, 2013). A 2015 exploratory study investigated expanded ACE domains in a diverse Philadelphia sample where 36.1% of respondents identified as African-American, 11.4% as Hispanic, 6.2% as Asian, and 7.4% as Other (Cronholm et al., 2015). Significant ACE domains that were found included: experiencing racism or bullying, peer rejection or victimization, witnessing community violence, living in an unsafe neighbourhood, and having a history of foster care (Cronholm et al., 2015). The investigation found that half of the participants experienced 1 or 2 expanded ACEs,

and 13.4% of participants reported experiencing 3 or more expanded ACE's (Cronholm et al., 2015). Research studying the mental well-being of African-American youth found that living in environments of high racism influenced mental health and physiological processes into adulthood, potentially comparable to Indigenous youth in the Canadian context (Nyborg & Curry, 2003). The original ACE domains and survey would not have captured these exposures, as they may not appropriately gauge the breadth of adverse events experienced by minority communities, or individuals (Wade et al., 2014; Finkelhor, 2013).

The original ACE sample overwhelmingly lived in suburban locations; research studies in urban populations have shown an increase in exposure when compared to suburban, or rural populations. (Burke, 2011; Giovanelli, 2016). In a study of ACEs within an urban sample of African-American and Hispanic-Americans from economically disadvantaged areas of Chicago, the researchers expanded the ACE domains to include parental divorce, death of friends and family, family conflict, witnessing or being a victim of a violent crime, and experience with child welfare services (Giovanelli, 2016). Instead of linking ACE to adult health, this particular study investigated the relationship of ACE and adolescent behaviors, where they found an increased risk of depression (OR = 3.9) and poor health behaviors (OR = 4.5) in those with 4+ ACEs when compared to those with no ACEs (Giovanelli, 2016). Comparing those 2 groups again, there was a decrease in high school graduation (OR = .37), and an increase in juvenile arrest (OR = 3.1) and felony charges (OR = 2.8) in those with 4+ ACEs (Giovanelli, 2016). Interestingly, in this population, the least prevalent ACEs reported were sexual abuse (1.7%), physical abuse (2.8%), and neglect (7.3%); the most prevalent ACEs reported (conventional and expanded) were prolonged absence of a parent or parental divorce (32.1%), death of a family member or close friend (29.2%) and frequent family conflict (15.8%) (Giovanelli, 2016). In this study population approximately 62% of participants had experienced at least one ACE, and 13% experienced 4 or more ACEs (Giovanelli, 2016). A San-Francisco based pediatric study investigating ACE in an urban population found 67.2% of participants had exposure to at least one ACE, and 12% experienced 4 or more, greater than the original suburban ACE study which reported 52% of participants had exposure to at least one ACE, and 6.2% experienced 4 or more (Burke, 2011).

2.4.1 Expanded Domains of Adverse Childhood Experiences with Indigenous populations

Few studies have investigated childhood adversity in samples of Indigenous peoples, North American Indian, or Alaskan Natives. However, one American study examined the relationship between ACE exposures, risk behaviors, and mental health outcomes in Native American adolescents (Brockie et al., 2015). This study assessed the ACE domains typically used in childhood adversity research and also included the domains of historical loss and discrimination. (Brockie et al., 2015). It was determined that the historical loss domain was necessary to include after a previous study that interviewed community leaders in Native American communities developed a conceptual framework and measurement scale related to historical loss (Whitbeck et al., 2004). Participants who had exposure to the historical loss and discrimination domains were more likely to experience depression, poly-drug use, and PTSD symptoms. The researchers also found that Native American adolescents were more likely to report exposure to any ACE domains than white adolescents (Brockie et al., 2015). In 2016 researchers analyzed a national children's health survey to examine the prevalence of ACEs among American Indian and Alaskan Native (AI/AN) children (Kenney & Singh, 2016). The adverse childhood experiences survey used for this study contained the standard domains of adversity, and also included a measure on discrimination. The results of this study indicated that AI/AN children were more likely to have experienced ACEs than non-AI/AN children. Odds ratios ranged from being 7 times more likely

to have been discriminated against based on ethnicity, to approximately equal odds of living with a mentally ill person (Kenney & Singh, 2016). The researchers also found that AI/AN children were less likely to have 0 ACEs, equally likely to have 1 ACE exposure, but 2-3 times more likely to have been exposed to 2-5 ACEs (Kenney & Singh, 2016).

2.5 Chapter Summary

The Indigenous population in Canada is diverse and quite young compared to the non-Indigenous population, and the fastest growing group in Canada. Indigenous peoples in Canada suffer reduced health status and life expectancy and experience higher rates of diabetes, obesity, depression, suicide, and poverty than non-Indigenous peoples. The impact of exposure to adverse childhood experiences (ACE) is one potential mechanism through which individuals can develop poor health status and outcomes. Investigations into additional ACE domains outside of the original domains included on standard ACE surveys has revealed adverse experiences and events that are relevant and burden specific social and cultural subgroups of the population. The implications of the aforementioned studies reveal some common themes in regard to the distribution of ACEs within a population. First, individuals living in poverty or of low socioeconomic status are more likely to be exposed to ACE than middle and high socioeconomic status individuals as well (Wade et al., 2014; Giovanelli et al., 2016). Also, populations that have been historically marginalized, or are currently marginalized, are more likely to be exposed to ACE than the general population, and have reported domains of ACE not currently measured by the ACE survey (Finkelhor et al., 2013; Wade et al., 2014; Cromholm et al., 2015; Giovanelli et al., 2016). As a result, there is the potential for different ethnic and socioeconomic groups to have different prevalence and types of ACE than others. Previous research investigating the distribution of ACE across different populations has been done in the American context, and further research on the distribution and type of ACE exposures in Canada is necessary. Previous research on testing expanded ACE domains among Indigenous populations included measures of racial discrimination and historical loss, although how they decided to include these domains is not clear.

3. Study Rationale

Adverse childhood experiences, regardless of which domain they fall under, pose a cumulative mental and physiological burden on the individual, increasing their vulnerability to poor health behaviour and chronic disease development (Felitti et al., 1998; Dong et al., 2004). People exposed to ACE are at increased risk for mental and physiological problems in adulthood, ranging from poor health and psychosocial behaviours and habits to mental illnesses, and chronic conditions (Felitti et al, 1998; Kessler et al, 2010; Burke et al, 2011; Bellis et al, 2014; Giovanelli et al, 2016). However, most of the research on expanded ACE domains is American and the potential differences across Canadian populations is not well understood, since there is little research exploring the ethnic and cultural differences in exposure to adversity in the Canadian context. Since perceptions of adversity can be shaped by experiences, relationships, cultural norms and values, as well as historical and social contexts, this is a significant knowledge gap (Wade Jr., et al, 2014). Since ACEs have been linked to alterations in developmental health, and adult health behaviours and outcomes, accurately identifying individuals with an ACE burden can contribute to significant health promotion and disease prevention strategies (Felitti et al., 1998). ACE research can inform clinical interventions, public health screening and mediation efforts, as well as broader health and public policies. Indigenous peoples living in Canada are disproportionately exposed to many of the contexts and events that increase the likelihood of experiencing ACE such as poverty, social vulnerability, and economically disadvantaged communities. Investigations into populations living with comparable socioeconomic characteristics to the Indigenous population in Canada have resulted in expanded domains of adversity being identified for ACE screening surveys, and utilized qualitative, exploratory methodologies as well (Whitbeck et al., 2004; Brockie et al., 2015; Kenney & Singh, 2016). Similar to the findings of previous studies on socially vulnerable populations, Indigenous peoples living in Canada may experience unique adversities not currently captured by conventional ACE surveys. It is also important to note that Indigenous peoples and communities, especially in health research, are often described through a 'deficit discourse', a narrative that frames Indigenous peoples and communities as lacking or failing in regard to the topic studied (Fogarty et al., 2018). Therefore, part of the rationale for this study is acknowledging childhood adversities related to population level variables that are not a result of personal or communal failures, and to highlight the abundance and advantages of resiliency building and coping mechanisms relevant to Indigenous peoples and communities.

I proposed an exploratory study to develop a more culturally accurate ACE survey for Indigenous people living in Canada, and to identify factors perceived to help overcome childhood adversities. After partnering with a sample of Indigenous post-secondary students and staff of Indigenous student centres, focus groups and semi-structured interviews were conducted to discuss the types of adversity relevant to Indigenous children, and well as the factors and sources that positively contribute to overall resiliency and healthy coping strategies.

3.1 Research Objectives and Questions

This project has been developed around two main research objectives: one investigating experiences of adversity, and the other investigating sources of resiliency, or coping factors, of Indigenous post-secondary students. The first objective of this study was to investigate whether Indigenous peoples living in Canada endorse domains of adverse childhood experiences that are not currently captured by the conventional ACE survey instrument. Achieving this objective will help recognize the unique adversities Indigenous children may face and make ACE surveying methods more culturally accurate for Indigenous peoples living in Canada. The second objective

was to understand the factors, or sources of resiliency and healthy coping strategies in regard to reducing the negative effects of adversity among Indigenous children.

The study addressed the stated objectives by discussing the following points:

- 1. To investigate whether Indigenous peoples living in Canada would endorse domains of adverse childhood experiences not currently captured by the conventional ACE survey.
 - a. 'This research session is part of a project we are conducting to explain and describe the childhood and adolescent experiences of Indigenous people living in Canada. We are particularly interested in understanding your perceptions of adverse childhood experiences. An adverse childhood experience is defined as an event that was potentially traumatic, highly stressful, or emotionally difficult. These events could have happened to you, a family member, or an Indigenous friend from your area. What experiences, during your first 18 years, did you ever perceive as overwhelmingly stressful, emotionally challenging, or especially difficult?'
- 2. To understand the factors, or sources of resiliency and healthy coping strategies in regard to reducing the effects of adversity, or childhood trauma in adulthood.
 - This research session is part of a project we are conducting to explain and describe the childhood and adolescent experiences of Indigenous people living in Canada. We are particularly interested in understanding your perceptions of coping or resiliency factors. A coping skills or resiliency factor is defined as methods or supports that help someone deal with stressful situations, like the ones we previously identified. Which factors do you think of as helpful in coping with the events we just discussed? How did you, a friend, or a family member overcome events that were harmful, stressful, or emotionally painful?

Follow-up questions and probes were prepared for each point and are included in Appendix B. The research objectives and questions were addressed using in-depth semi-structured individual and focus group interviews with Indigenous post-secondary students and staff of Indigenous student centres.

3.2 Intended Impacts

The results and conclusions of this exploratory research study will inform future research and examination of childhood adversity and coping strategies in Indigenous post-secondary students. In addressing these research questions, the study will provide a greater understanding of the childhood experiences of Indigenous children. The results from the adversity discussions were compared to the standard childhood adversity measures to determine if there are any domains, or experiences that we find are relevant to Indigenous children, but missing from the standard measures. If a more appropriate approach is found necessary, the results from the study can guide and inform the development of a new ACE measure. The results from the resiliency and coping discussion have been organized into themes, which may help identify a set of concepts, programs, or services that Indigenous children believe help build resiliency, or coping skills. If the programs and services identified are non-existent or lacking, the results from the study can be used to advocate for greater resource allocation and availability of those programs and services for Indigenous children. In conclusion, identifying the best way to measure childhood adversity of Indigenous peoples, and valid and appropriate services or programs to build healthy coping strategies increases the likelihood of reducing the health impacts of childhood adversity for Indigenous children.

3.3 Chapter Summary

There is little research exploring the ethnic and cultural differences in exposure to ACE in the Canadian population. Since perceptions of adversity can be shaped by cultural norms and values, as well as historical and social contexts, this is a significant gap in the literature. Indigenous peoples living in Canada are potentially exposed to many of the contexts and events that increase the likelihood of experiencing ACE such as poverty, social vulnerability, and economically disadvantaged communities, and have high exposure to historical traumas. I proposed an exploratory study to develop a more culturally accurate ACE survey for Indigenous people living in Canada, and to identify factors perceived to help overcome childhood adversities. After partnering with a sample of Indigenous post-secondary students and staff of Indigenous student centres, focus groups and semi-structured interviews were conducted to discuss the types of adversity relevant to Indigenous children, and well as the factors and sources that positively contribute to overall resiliency and healthy coping strategies. The objectives of this study are to investigate whether Indigenous peoples living in Canada endorse domains of adverse childhood experiences that are not currently captured by the conventional ACE survey instrument, and to understand the factors, or sources of resiliency and healthy coping strategies in regard to reducing the negative effects of childhood adversity among Indigenous children.

4. Study Design and Methods

This study used an adapted qualitative method design that incorporated aspects of numerous group and individual research techniques. Due to the exploratory nature of the research questions, inductive and qualitative approaches were utilized to shape the investigation into the how's and why's of adversity and coping skills relevant to Indigenous post-secondary students in Canada (Dick, 1999). Also, any potential conceptual or theoretical associations and perspectives related to this research would be evaluated and pursued through future projects as this was a pilot study grounded solely in participant views and perspectives. Qualitative approaches generate participant driven data from which analysis can identify underlying themes and narratives relevant to the research question. Involving participants in the development of the research process is beneficial to this study because it leads to richer data and challenges the assumptions of the researcher and standard research process, which is particularly important for this study as the researcher is not Indigenous and has no lived experience as such. Our approach to developing and applying this methodology was a flexible and responsive one, using input from participants and local leaders to change and improve the approach to better suit the needs of Indigenous peoples. Focus group and interview methodologies are appropriate to use for studies that aim to capture a wide range of perceptions and ideas (Krueger & Casey, 2014). Previous studies that similarly explored potentially impactful adverse childhood experiences and resiliency factors have utilized qualitative methodologies, such as semi-structured interviews and focus groups using the Nominal Group Technique (NGT) (Finkelhor et al, 2013; Wade Jr. et al, 2014). For this study, two group research methodologies were integrated into the general focus group approach. First, elements of First Nations' sharing circles were incorporated into the procedures and structure of the entire session to improve the cultural appropriateness of the methodology. Second, NGT was

incorporated into the discussion of perceptions of adverse childhood experiences relevant to Indigenous children in Canada to determine the relative impact of adverse experiences and events shared. Both NGT and First Nations' sharing circles share many procedural aspects, and each improves the focus group approach for this study population and investigation. Qualitative semi-structured interviews were offered for participants unable to, or uncomfortable in, participating in the focus group setting, which integrated procedures from First Nations' sharing circles and NGT as well.

The following chapter describes the applied theoretical approaches, recruitment criteria and details, the methodologies used for data collection, and outlines the data analysis approaches for quantitative and qualitative data created from both the focus group and semi-structured interviews.

4.1 Intersectionality Theory

Intersectionality highlights the multiple positions that individuals and groups hold at both micro and macro levels, through social identities, sociodemographic characteristic's, social processes, and social systems (Dhamoon, 2011). For the purpose of this study, intersectionality theory is applied to the complex effects of overlapping social identities, structures, and institutions, on an individual's health (Windsong, 2016). Intersectionality theory is often applied to social science research of complex problems, and issues surrounding privilege and oppression as well. Intersectionality theory can help to understand the inequities that vulnerable populations experience, such as Indigenous individuals in Canada, by valuing the integrated, synergistic effects of numerous social contexts, relationships, and experiences (Windsong, 2016). There are three foundational aspects of intersectionality as it applied to this study. First, an individual's identity is characterized by engaging as a member of numerous social groups, such as gender, ethnicity, and

sexual orientation, that are in constant interaction with each other (Else-Quest & Hyde, 2016). Second, within and across social groups or identities are social dynamics constructed by power relationships and expectations of the group and of members within the group (Else-Quest & Hyde, 2016). Third, there is significant variation and contextual factors linked to each aspect of our individual identities and group memberships, as well as our interactions with broader systems and institutions (Else-Quest & Hyde, 2016). The constant overlapping and interacting sides of our identities, and personal location within broader systems, generates our dynamic and complex personal identities. By applying intersectionality theory, greater sensitivity is given to the numerous overlapping identities of individuals which, when navigating through a variety of social contexts, produce unique dimensions to their experiences (Atewologun, 2018). Qualitative methods that integrate intersectionality to understand complex identities and perspectives are appropriate for exploratory studies (Atewologun, 2018; Creswell, 2013). In this investigation the focus on open-ended questions and participant-guided interviews and focus groups creates space for participants to share and communicate their experiences from their intersectional position. Applying intersectionality allows for an individual's experiences to be interpreted as more than just additive, or the sum of their parts, but instead as simultaneously shifting and framed across social contexts to inform an individual's interpretations of their experiences (Atewologun, 2018).

4.2 Research with Indigenous Communities

Many people throughout this project have stated in one way or another that 'Indigenous peoples are the most studied but least consulted group of people' and that 'Research should happen with Indigenous peoples, not on Indigenous peoples'. In alignment with those perspectives, conducting research that involves Indigenous peoples or communities should integrate appropriate protocols and principles aligned with Indigenous values to be sensitive to a number of issues that

may not be as important in research with non-Indigenous peoples or communities in Canada. Depending on the context and community there are many potential avenues to applying them to the research process, for this project purposeful and meaningful research relationships and the integration of ceremonial and cultural practices were viewed as the guiding and grounding principles for this project. First, extensive efforts to build community engagement and joint decision-making capacity throughout the research process should be done whenever possible (Canadian Institutes of Health Research et al., 2014). Continually asking 'how do the study methods build respectful and meaningful relationships between the researchers, topic, and community?' prioritized relational accountability (Wilson, 2008). Thankfully, through the work of our lead facilitator, Shawn Johnston, introductions and the establishment of times and spaces to further engage with the Indigenous community in Waterloo was facilitated. This led to numerous informal meetings and discussions that shaped the direction and processes of data collection, analyses, and interpretation of the study findings through follow up meetings and work sessions. Early collaboration and establishing relationships with community members helped create findings and conclusions from the study that are relevant and beneficial to the broader community as well. The obligation to uphold and respect the nature of researcher – community member relationships and openly acknowledge our subjective selves is a driving principle in this field of research to identify and support the value of the lived experience and holistic perspectives of community members throughout the research process (Wilson, 2008). Second, when taking the perspective that research is a ceremony it becomes imperative that relevant cultural practices and approaches are integrated into the research process as well. (efforts to integrate culture) are meant to strengthen the connections between researchers, and community members, and acknowledge that knowledge creation is rooted in culture (Wilson, 2008).

The importance and value of establishing genuine relationships with community leaders and participants before the research process could not be exemplified better than the involvement of the lead facilitator for this project, Shawn Johnston, and the students of WISC. Their guidance and leadership helped to engage with the ideas and interests of those in the local Indigenous community before we began to formulate this project. Their opinions and critiques shaped the design of the project and, through sharing knowledge on procedures like smudging and Sharing Circles and Indigenous research principles, made participants feel respected and comfortable with the goals and processes of the project. Their guidance and help provided the support for engaging with participants directly and fostering the connections that lead to the formation of ISAC, without which the quality of study data and findings would have suffered tremendously. It is my hope that the results and conclusions of this study are of relevance and aligned with what they envisioned.

4.3 Participant Demographics

A total of 16 participants were recruited for the study and participated in either a focus group or interview between September 2017 and March 2018. One focus group (n = 4) and 12 individual interviews were conducted. Demographic data for all study participants and each focus group are outlined in Table 8, where it is noted that two participants did not fill out the demographic questionnaire. Within the study sample 68.75% (9) of participants identified as First Nations, and 31.25% (5) of participants identified as Métis. Of the 16 participants, 68.75% (10) identified as female and 25% identified as male (4). 62.5% (8) of participants identified as Indigenous from birth, and 37.5% (6) of participants began to identify as Indigenous in adolescence or adulthood with the start of self-identification ranging from 13 to 24 years old. There were 6 participants (37.5%) between the ages of 18 and 24, 7 participants (43.75%) between the ages of 25 and 34, and 3 participants (13.75%) that were 35 years or older.

Participants were involved in only a single session of a focus group, or one individual interview.

Demographic data were collected and reported to provide contextual information about the participants in our sample that provide a starting point for investigating how applicable the trends and outcomes discussed may be for other communities of Indigenous students. All Participants were assigned pseudonyms to protect confidentiality.

4.3.1 Selection Criteria

To be considered for the study, participants had to meet 3 inclusion criteria:

- 1) Identify as First Nations, Métis, or Inuit;
- 2) Be 18 years, or older;
- 3) Currently be a post-secondary student, a recently graduated post-secondary student (within the past 5 years), or an individual working in a setting that serves Indigenous post-secondary students.

4.3.2 Recruitment

After receiving ethics approval from the Office of Research Ethics at UW in September, 2017 (ORE 22313) participants were recruited from the University of Waterloo and (UW) Wilfred Laurier University (WLU) in Waterloo, Ontario. Participants were recruited for the study using a purposeful and convenience sampling approach through posted flyers and advertisements on UW and WLU campuses and online (Appendix B), as well as by word of mouth. Flyers with the description of the study were posted in various locations throughout the UW campus, including the Student Life Centre, Davis Centre and Dana Porter library, Environment 3, Science Teaching Complex, Arts Lecture Hall, the Math and Computing Complex, Burt Mathews Hall, and St. Paul's University College. Flyers were also posted in various locations throughout the WLU campus,

including the Science Building, Fred Nichols Campus Centre, Dr. Alvin Woods Building, and the Athletic Complex. Flyers are an appropriate method for participant recruitment for qualitative and exploratory public health studies as they are frequently used and found effective in qualitative public health research (Namageyo-Funa et al., 2014).

Messages were sent from staff of the Waterloo Indigenous Student Centre (WISC) to students through their undergraduate and graduate UW student mailing list as well. WISC is a centre located in St. Paul's University College on the UW campus that helps "facilitate the sharing of Indigenous knowledge and provide culturally relevant information and support services for all members of the University of Waterloo community, including Indigenous and non-Indigenous students, staff, and faculty" (St. Paul's University College, 2018). The support and knowledge of staff and students at WISC, and the space and time that WISC study partners offered, were paramount in the success of this study.

When participants responded to the advertisements they were assessed using the eligibility criteria, and those eligible were sent information letters regarding the study, research questions, and methodologies (Appendix B). Prior to giving informed written, or verbal consent for involvement in the study participants were able to ask questions and discuss concerns. Focus groups were then organized depending on the number of participants and their availability, and participants then arranged to be part of the session held at WISC. Individual interviews were organized at the participant's discretion and were held at WISC as well. A remuneration of \$15 was provided to participants to thank them for their time and for sharing their knowledge, thoughts, and experiences.

4.4 Focus Groups

The focus group approach was modified for this study to be more consistent with the traditional structure and objectives of First Nations' Sharing Circles, a widely used methodology in Indigenous communities that have a strong tradition of oral histories and knowledge transfer (Rothe et al, 2009). Adapting focus group procedures with a more recognizable and culturally appropriate approach provides the opportunity for greater richness of data related to the understanding of Indigenous post-secondary student's experiences and perspectives (Rothe et al, 2009). Sharing Circles are very similar to the standard focus group, with an emphasis on using local and culturally appropriate settings and customs. An important part of study design for an intimate topic, such as childhood adversities and coping skills, is ensuring that participants feel comfortable and safe with the setting, procedure, and people involved in the study. For example, incorporating time to smudge at the beginning, during, and after the session, and collecting data in a setting known to be culturally safe. Therefore, having participants lead the discussion, having a talking stick or feather, using open-ended questions, and including well-respected community members as facilitators ensures a mutual respect between participants and researchers and increases the likelihood of collecting highly relevant and quality data (Rothe et al., 2009). The following steps were taken to incorporate Sharing Circle tenets into the focus group approach for this study:

- The focus group was conducted at the Waterloo Indigenous Student Centre (WISC), a
 setting designed for the use of Indigenous students and where Indigenous people are
 familiar with design and decoration of the space.
- 2. Participants were encouraged to smudge or practice other ceremony freely.
- 3. A talking stick or feather was used to signal speaker turn-taking.

- 4. The facilitators for the focus group were employees of WISC, familiar with the project, methodology, and the study population.
- 5. The research team developed the research questions and methodology with integrated feedback from community partners to ensure they were accurate and appropriate for the study participants.

NGT is a focus group approach in which individuals share and discuss experiences and ideas while building consensus and creating a common work (Van de Ven & Delbecq, 1972). The NGT was an appropriate method because the focus was to discuss problems that involve attitudes, interpretations, and interpersonal variables (Van de Ven & Delbecq, 1972). Lead by the group instead of the researcher, NGT fosters discussion and generation of experiences and ideas that provide quality insight on the research question by those experiencing the topic under study. The absence of researcher authority and control over the identification of subjective and diverse participant experiences encourages marginal opinions and values to be shared more freely and openly (Gallagher et al., 1993). A more participant driven approach to generating data is an appropriate method for this study, since the study focus is on identifying lived experiences and events that are personal and unique to Indigenous peoples and intimate in nature. Similar studies looking to engage with participants about their perception of adverse childhood experiences have incorporated the nominal group technique (NGT) into the focus group design (Wade Jr. et al., 2014). Therefore, applying NGT is appropriate for this study because it allows for participant guided discussions, for emergent themes and experiences to be brought up easily, and for the relative impact of those experiences to be discussed (Creswell, 2013; Gallagher et al., 1993; Van de Ven & Delbecq, 1972). Figure 1 illustrates the processes for conducting a nominal group technique focus group.

4.4.1 Focus Groups: Procedural Steps

The duration of our focus group session was approximately 115 minutes. Below, the procedural steps with which the focus group was conducted are described:

- 1. Participants were welcomed into the space, and myself and the facilitators introduced ourselves. The facilitators began a smudge that everyone participated in.
- 2. If participants were comfortable in moving forward with the study they were given an information letter and consent form (attached), and the opportunity to discuss any questions or concerns before giving their informed consent followed. After informed consent was obtained from all the participants they completed a demographic questionnaire with questions about age, gender, identity, and childhood residence (attached).
- 3. A welcome statement and description of the study purpose, objectives, and outline (attached) were shared orally and paper copies were distributed to all participants. Afterwards there was a 10 minute period of discussion on questions and concerns about the study, specifically the practical steps and distress procedures in place for the session.
- 4. The following research statement was then asked to participants by the facilitators:

'This research session is part of a project we are conducting to explain and describe the childhood and adolescent experiences of Indigenous people living in Canada. We are particularly interested in understanding your perceptions of adverse childhood experiences. An adverse childhood experience is defined as an event that was potentially traumatic, highly stressful, or emotionally difficult. These events could have happened to you, a family member, or an Indigenous friend from your area. What experiences, during

your first 18 years, did you ever perceive as overwhelmingly stressful, emotionally challenging, or especially difficult?'

Participants were able to ask questions before a 15 minute independent idea generation phase began.

- 5. One by one around the circle participants described an experience, or event from their independent list. I recorded each experience down on the whiteboard, so that they are visible to the entire group as the participants and facilitators briefly clarified the ideas.
- 6. When each participant exhausted their independent list, the whole group discussed and clarified all the experiences and events now listed on the whiteboard. Using the same one by one approach each participant was given the opportunity to ask questions, discuss, clarify, or comment on any of the individual experiences shared. The facilitators encouraged discussion about them through prepared (attached) and unprepared follow up questions. After participants communicated all their questions and comments the first stage of group discussion was ended.
- 7. Participants were then asked to individually rank the 10 most impactful experiences shared, ranking the most impactful experience a 10, and the 10th most impactful a 1. Impact was defined as a personal perspective influenced by the damage or harm caused by the event or experience, and the prevalence of the event of experience. Once the participants voted they were given a small break while I collected and tallied the votes from the group. I then posted the cumulative group rank scores to each experience recorded on the whiteboard.

- 8. A second stage of group discussion regarding the list on the whiteboard, now with corresponding scores, was then conducted. Using the same one by one approach each participant was given the opportunity to ask questions, discuss, clarify, or comment on any of the scores or experiences on the whiteboard. After participants communicated all their questions and comments the second stage of group discussion was ended.
- 9. Participants were then asked to individually rank the 10 most impactful experiences shared again, to allow for any potential changes participants wanted to make after discussing and clarifying the experiences and scores. I collected and tallied the votes from the group and then posted the final cumulative group rank scores to each experience recorded on the whiteboard.
- 10. The participants and facilitators were given a small break before beginning the open discussion on resilience factors and coping strategies.
- 11. After a 10 minute period of discussion on questions and concerns about the open discussion the following research statement was then asked to participants by the facilitators:

'This research session is part of a project we are conducting to explain and describe the childhood and adolescent experiences of Indigenous people living in Canada. We are particularly interested in understanding your perceptions of coping or resiliency factors. A coping skills or resiliency factor is defined are methods or supports that help someone deal with stressful situations, like the ones we previously identified. Which factors do you think of as helpful in coping with the events we just discussed? How did you, a friend, or a family member overcome events that were harmful, stressful, or emotionally painful?'

Participants were able to ask questions and were given 15 minutes to organize their responses. One by one around the circle participants described an experience, or event and the facilitators encouraged discussion about them through prepared (attached) and unprepared follow up questions.

- 12. Once all the participants and facilitators had no further comments, or additions to the open discussion it was ended. Afterwards there was a 10 minute period of discussion on questions and concerns about the study, improvements that could be made, other potential participants to contact, etc.
- 13. Feedback materials were shared orally, and paper copies were distributed to all participants. The facilitators began another smudge that everyone participated in. After participants communicated all their questions and comments the focus group was ended.

Of note: After the focus group the participants were asked if they felt any aspects of the study were very well done, what could be improved, and if anything made them feel uncomfortable. The participants responded that the ranking of adverse childhood experiences made them feel pressured to evaluate someone else's experiences, and they were uncomfortable speaking to the impact of experiences other than their own. As a result, it was suggested that the impact ranking step be voluntary, which was included in the instructions of subsequent interviews.

4.5 Semi-Structured Interviews

Semi-structured interviews were offered to participants preferring a one-on-one discussion, or who were unable to participate in the focus group setting. Due to the sensitive nature of the study topic the inclusion of individual interviews offered those not comfortable sharing in a group setting the opportunity to participate. Qualitative semi-structured interviews are utilized to give

participants flexibility and control over the direction and content of their responses and the discussion through a set of prepared questions that guide, but do not limit, the interview (Silverman, 2013). Semi-structured individual interviews are recognized as one of the most important investigative tools for exploratory topics where participant perceptions are essential and little information already exists (Stewart et al, 2008). Interviews were conducted at WISC and participants that chose an individual interview were asked the same interview questions and were asked to rank the perceived impact of discussed adversities the same as participants in the focus group. All interviews were conducted by the same researcher. Similar to the focus group approach, procedural aspects of NGT and First Nations' Sharing Circles were incorporated into the interview approach, which provided a greater richness of data related to the research questions (Rothe et al, 2009). The following steps were still taken to incorporate the culturally important Sharing Circle tenets into the individual interview approach for this study:

- 1. The interviews were conducted at the Waterloo Indigenous Student Centre (WISC), a setting designed for the use of Indigenous students and where Indigenous people are familiar with the design and decoration of the space.
- 2. Participants were encouraged to smudge.
- 3. The facilitators for the focus groups, employees of WISC, were available for individual interviews by request if the participant preferred.
- 4. The research team developed the research questions and methodology with integrated feedback from community partners to ensure they were accurate and appropriate for the study participants.

4.5.1 Semi-Structured Interviews: Procedural Steps

The duration of the interviews ranged from 55 to 122 minutes, and the average interview time was approximately 73 minutes. Below, the procedural steps with which the individual interviews were conducted are described:

- 1. Participants were welcomed into the space, and I introduced myself. Participants were reminded they are able to smudge at any point during the interview.
- 2. If the participant was comfortable in moving forward with the study they were given an information letter and consent form (attached), and the opportunity to discuss any questions, or concerns before giving their informed consent followed. After informed consent was obtained from the participant they then completed a demographic questionnaire with questions about age, gender, identity, and childhood residence (attached).
- 3. A welcome statement and description of the study purpose, objectives, and outline (attached) were shared orally and paper copies were distributed to the participant. Afterwards there was a 10 minute period of discussion on questions and concerns about the study, specifically the practical steps and distress procedures in place for the session.
- 4. I then asked the participant the following research question:

'This research session is part of a project we are conducting to explain and describe the childhood and adolescent experiences of Indigenous people living in Canada. We are particularly interested in understanding your perceptions of adverse childhood experiences. An adverse childhood experience is defined as an event that was potentially traumatic, highly stressful, or emotionally difficult. These events could have happened to

you, a family member, or an Indigenous friend from your area. What experiences, during your first 18 years, did you ever perceive as overwhelmingly stressful, emotionally challenging, or especially difficult?'

Participants were asked to take some time to list and organize their response.

- 5. The participant was then asked to orally share their ideas on adverse experiences, or events and we openly discussed them, clarifying and expanding on their original responses. Discussion was encouraged through prepared (attached) and unprepared follow up questions.
- 6. The participant was then asked to individually rank the 10 most impactful experiences shared, ranking the most impactful experience a 10, and the 10th most impactful a 1. Impact was defined as a personal perspective influenced by the damage or harm caused by the event or experience, and the prevalence of the event of experience.
- 7. The participant was given a small break before beginning the discussion on resilience factors and coping strategies.
- 8. I then asked the participant the following research question:

'This research session is part of a project we are conducting to explain and describe the childhood and adolescent experiences of Indigenous people living in Canada. We are particularly interested in understanding your perceptions of coping or resiliency factors. A coping skills or resiliency factor is defined are methods or supports that help someone deal with stressful situations, like the ones we previously identified. Which factors do you think of as helpful in coping with the events we just discussed? How did you, a friend, or a family member overcome events that were harmful, stressful, or emotionally painful?'

The participant was then asked to orally share their ideas on adverse experiences, or events and we openly discussed them, clarifying and expanding on their original responses. Discussion was encouraged through prepared (attached) and unprepared follow up questions.

- 9. Afterwards there was a brief period of discussion on questions and concerns about the study, improvements that could be made, other potential participants to contact, etc.
- 10. Feedback materials were shared orally, and paper copies were distributed to the participant. After the participant communicated all their questions and comments the interview was ended.

Of note: In 3 of the 12 interviews conducted the participant was uncomfortable with completing the perceived impact rankings because they did not want to compare or quantify the differences in impact of the adversities shared.

4.6 Chapter Summary

This chapter described the recruitment strategy, as well as the methodology for data collection for the study. 16 participants were recruited for the study using a purposive and convenience sample and were involved in either a focus group, or semi-structured interview, that incorporated procedural aspects of First Nations' sharing circles and NGT. Participants shared their experiences and perceptions regarding childhood adversities relevant to Indigenous children living in Canada, and the coping strategies and resiliency factors perceived as impactful for Indigenous post-secondary students in Canada.

5. Analysis

Two main sources of data were analyzed for this study: the ranked lists of adverse childhood experiences, and the audio recordings from the group and interview discussions. Ranked lists data from the focus group session and individual interviews provide the data for comparative and descriptive quantitative analysis. The audio data from the focus group open discussion and the individual interviews were transcribed to provide the data for qualitative thematic analysis. The quotes taken from these focus groups and interviews to describe codes and themes can be substantially longer than those found in most qualitative studies. Given the personal and intimate nature of the research questions, and oral storytelling traditions of Indigenous peoples living in Canada, they are necessary to fully illustrate their intended meaning. Lastly, the notes on observations and thoughts throughout the focus group and interviews as well as a reflective journal were incorporated into the qualitative thematic analysis.

5.1 Quantitative Ranking Analytic Approach

All of the individual and group ranked lists were used in the quantitative analysis and Microsoft Excel was utilized to record the quantitative scores and data generated by each participant and group. The integration of NGT into the study design enabled analysis of the impact of ACE, since participants assigned quantitative ranks to the ten most impactful experiences shared (Van de Ven & Delbecq, 1972). Since data was created at the individual, subgroup, and whole sample level, the quantitative analysis describes and compares the relative impact that experiences had within and between individuals and groups. At the subgroup level, analysis will be conducted by investigating the relative importance each subgroup of participants gave to their experiences shared (Gallagher et al., 1993). The individual rankings allow direct comparisons to be made between individuals and between subgroups, assessing any variability in responses across the

sample. For example, any variability in responses or impact seen between different gender identities, age groups, or between those who identified as Indigenous from birth and those who began to later in life. At the sample population level, identification of the most prevalent and impactful adverse experiences will occur through the generation of the whole samples ranked list (Van de Ven & Delbecq, 1972). The final ranked list will be used to identify the events or domains of experiences that are relevant to participants but currently missing from standard clinical ACE measures, answering the first study research question.

5.2 Qualitative Thematic Analytic Approach

All audio data from the focus group session and semi-structured interviews were manually transcribed and input into QSR International NVivo 11 for thematic analysis, and the data coding and analysis was done in consultation with a group of Indigenous post-secondary students at WISC (further explained under the Indigenous Student Advisory Committee heading). Thematic analysis is the iterative process of identifying codes from the data that group and organize into themes and patterns into results relevant to the research objectives (Fereday & Muir-Cochrane, 2006). A thematic analysis of the discussion on resiliency factors and coping strategies by participants is an appropriate method for answering the second study research question. Applying thematic analysis to identify and group qualitative data into themes highlights the similarities and differences regarding the type of resiliency factors and coping strategies shared across the sample. Utilizing thematic analysis can highlight the underlying reasons for any differences in the quantitative analysis and justify the findings of the ranked lists as well (Marks & Yardley, 2011; McMillian et al., 2014; Gallagher et al., 1993). The analysis of qualitative data from interviews and focus groups occurred simultaneously to data collection, and the analysis adhered to the methodological steps of a rigorous and transparent thematic analysis (Braun & Clarke, 2006).

5.2.1 Coding

The first round of coding was done by adapting the events and experiences shared, described, and ranked by participants as part of the NGT process into codes that could be applied to the transcripts from the focus group and interviews. Since the data in the transcripts was derived from the same settings that produced the ranked lists, there was a lot of immediate coding that captured the different adverse events and experiences. The next round of coding involved first cycle coding and applied initial, in vivo, and provisional coding methods. Initial coding is openended and generates codes straight from the data after it has been reviewed and can go in any direction, no preconceived concepts or codes are applied to the data during this method (Saldana, 2009). The in vivo coding method uses verbatim participant words and phrases to develop codes that are content based and ensure that the vocabulary used coding and analysis is representative of the language and phrases participants were using (Saldana, 2009). Provisional coding is when previous information or literature is reviews to develop codes that are likely to be found in the data, they are preconceived concepts or codes that are refined beforehand and then applied to the data (Saldana, 2009). The second level of thematic analysis involved second cycle coding and applied pattern, focused, and axial coding methods to build on the original coding and organization. Pattern coding develops meta-codes from grouping similarly labelled data that can be meaningfully organized based on the characteristics they share (Saldana, 2009). Focused coding is comparable, but instead of grouping data together based on organically derived similarities focused coding groups data together based on relevance to a particular, preconceived concept (Saldana, 2009). Axial coding is a method employed to more accurately define the dimensions and limits of codes, meta-codes, or subthemes, so that the relationships across and within codes can be more easily described (Saldana, 2009).

After developing the codes through each type and level of coding a clear codebook was established, the next step in thematic analysis was to apply the codes to catalogue the data from focus group and interview transcripts (MacQueen et al., 1998). Once all the transcripts were encoded, the data labelled was then compiled and organized into themes or sub-domains of similar descriptions of either adverse experiences or resiliency factors, some of which were further defined and linked into larger domains (Marks & Yardley, 2011; Creswell, 2013; Gallagher et al., 1993). The appropriate level of detail for code definitions and for establishing themes was determined by iteratively assessing the quality and quantity of the data from transcripts and journaling, and engaging with study participants, collectively as the Indigenous Student Advisory Committee (ISAC). Any data that had an unclear meaning or application were noted and analyzed again at the end of the coding and theme organization process. The data was reevaluated to determine if it could be labelled with another code to ensure no relevant data was missed. If the data was still not clear, appropriate to integrate into a theme or subtheme, or detailed and relevant enough to stand on its own, then the code was left out of further and final analysis.

5.2.2 Reflective Journaling

When conducting qualitative research, it is critical to clarify and communicate self-location and personal perspectives and their relation to the research process to improve transparency in personal positioning. One method to ensure that a researcher's personal bias and stance are communicated throughout their work is the creation of a reflective journal, a collection of writings and reflections that describe the reasoning and thought processes behind the choices and decisions made with data, analysis, and conclusions (writeonline.ca, 2015). Keeping a quality reflective journal upholds the validity, reliability, and transferability of the research results, and helps integrate aspects of data collection and analysis that are otherwise not easily included or

communicated through standard qualitative methodologies (Ortlipp, 2008). Regular journal entries were routinely done before and after each instance of data collection, the transcribing of each audio data file, and after each meeting with the Indigenous Student Advisory Committee (ISAC). Journal entries were also completed intermittently throughout the analysis, interpretation, and write-up stages of the project as new understandings or ways of organizing the data came up. The cyclical process of going back and forth between a reflective journal and the data allowed for responsiveness and flexibility in how the data ended up being organized and interpreted (Dick, 2000). Journaling was used to elaborate on codes and develop the codebook, as well as theme ideas organization as they were generated, and is therefore a data source as well.

5.2.3 Inter-coder Agreement

Inter-coder agreement is important for reducing the bias an individual researcher can potentially have when analyzing the data and developing themes and theories (Armstrong et al., 1997). Having another qualified researcher evaluate the development of codes and application of those codes to the data improves the quality and rigour of the analysis and results. Following the lead researchers coding of the data two transcripts were sent to a graduate colleague with experience in qualitative approaches and thematic analysis, and who is a qualified and appropriate second coder. The second coder was a recently graduated MSc student from the School of Public Health and Health Systems at University of Waterloo who was asked to analyze and code the data to assess continuity and quality of data coding. The second coder was debriefed on the overall project, background literature, and the specific approach that was being used to coding. After coding of the two transcribed interviews was completed independently, the codebook developed by the lead researcher was shared with the second coder and there was a thorough discussion regarding any differences in codes generated, or how they were applied to the data. There was little

variation between the two coders and the three differences that were found were resolved through discussing the definitions and limitation of the specific codes and how they relate to each other.

5.2.4 Visualization

The creation of a thematic map will help to visualize and understand the themes and types of adversity, and resiliency or coping mechanisms, with each other their subcomponents as well (Figure 2).

5.2.5 Indigenous Student Advisory Committee (ISAC)

Throughout the project various efforts continually engaged and included participants in the methodology and analytic processes. This approach is often integrated into pilot research, as it ensures participant views are accurately being communicated, and is foundational to appropriate and meaningful research with Indigenous groups as well. Consulting with participants throughout the project enriches the relationship between researchers and participants and improves the quality and accuracy of the analysis and results, as participants become stakeholders that help guide the research process (Dick, 2000). A mutually beneficial relationship between researchers and participants creates the opportunity for information sharing and applications as well.

Each person who participated in the study was asked if they would like to be included in the consultation process and contacted over the project cycle to offer their insights and perspective throughout the analysis and interpretation stages. Although all participants indicated that they were interested in follow up opportunities and being a part of an advisory committee at the time of data collection, only 9 of the 16 participants wanted to be involved in the consultative process afterwards. Small groups of students, from 2 to 5 people, met with the lead researcher in 7 sessions

over 20 weeks where the coding, theme generation, organization, and general interpretations were discussed.

5.2.6 Trustworthiness

In qualitative research trustworthiness is a concept similar to reliability and validity in quantitative research. Conducting high quality or trustworthy qualitative data and findings is dependent on criteria such as subjectivity, reflexivity, adequacy of data, and adequacy of interpretation (Morrow, 2005). Subjectivity and adequacy of interpretations were addressed by having multiple investigators and participants provide their interpretations and conclusions of the data and findings, through consultation with community leaders (facilitators), participants (ISAC), and experts in qualitative research with Indigenous populations (Dr. Kelly Skinner), that used investigator triangulation to confirm data, interpretations, and conclusions (Carter et al, 2014). Reflexivity was addressed through the upkeep of a reflective journal (as described earlier in this chapter), and consultations with ISAC that assessed the data and findings in an open and iterative manner. Adequacy of data was addressed through data source triangulation, in which multiple sources and types of data are used to identify and confirm findings and conclusions (Carter et al, 2014). For this study we utilized quantitative methodology (NGT), individual qualitative interviews, and focus group qualitative interviews to generate high quality and multidimensional data. Another indicator of data quality is theoretical saturation, the point in data collection and analysis at which little or no new themes, concepts, or changes are derived from incoming data (Guest et al., 2012; Bowen, 2008). Theoretical saturation will be reached in this study when data is redundantly supporting existing themes and experiences of adversity and resiliency, and nothing remains or necessitates the generation of any additional themes.

5.3 Chapter Summary

This chapter described the analytic approaches for both quantitative and qualitative data collected for the study. The steps for the quantitative descriptive and comparative analysis, and the qualitative thematic analysis, are outlined and their application to the data collected is described. Descriptions of the roles and work of the Indigenous Student Advisory Committee (ISAC) are included, as well as an outline of where and when their efforts were taken in relation to the projects stages. The triangulation approach to ensuring trustworthiness was described and used to address the quality of data, interpretations, and conclusions, by converging multiple data types, sources, and interpreters to confirm the accuracy of the data and findings. The following chapter reports the results of the qualitative and quantitative analyses.

6. Results

6.1 Qualitative Results

The qualitative results presented next were generated from four data sources: interview transcripts, focus group transcripts, reflective journal entries, and discussions between researchers, facilitators, and ISAC.

6.1.1 Adversity Themes

Thematic analysis identified 33 codes which were organized into 5 main themes of adversity deemed impactful and relevant by the study participants in relation to the first research objective: to investigate whether Indigenous peoples living in Canada would endorse domains of adverse childhood experiences that are not currently captured by the conventional ACE survey instrument. These following themes were generated from an analysis of the qualitative data: Historical Trauma, Lack of Infrastructure, Gender-based Adversities, Household Dysfunction, and Racial Discrimination. Many of these themes contain subcategories that are further refined in their scope and relation to each other (denoted * in Table 9). The experiences shared by study participants show that Indigenous peoples in Canada can be exposed to numerous childhood adversities that are not clearly measured by standard ACE surveys, many of which are the current consequences of the historical oppression of Indigenous peoples and communities. First, severe traumas related to colonialism and post-colonial legislation, practices, and events, were described as having far reaching effects that continually expose today's Indigenous children to significant social stress. Also, it was highlighted that many Indigenous communities are troubled by continually poor infrastructure, such as inadequate housing and health services, unsafe drinking water, or no reliable public infrastructure at all. As previously mentioned, similar to other

investigations of childhood adversity, many instances of household dysfunction were discussed as prevalent and impactful to Indigenous children, including physical abuse, severe addictions in the household, and the loss of a family member. Another widespread form of significant adversity that can burden Indigenous women especially is gender-based violence and discrimination, centred around the victimization of marginalized Indigenous women and girls and the societal factors surrounding acts committed against missing and murdered Indigenous women. Unsurprisingly, as it was a key rationale for pursuing this project, events of severe racial, or ethnic discrimination at both individual and system levels were identified as significantly adverse and extremely common. These clusters of childhood adversities are complex and interconnected, as exposure to one type is usually indicative of exposure to environments that produce many concurrent adverse experiences (Felitti et al., 1998; Finkelhor et al., 2007).

Theme 1: Historical Traumas

The long standing direct and indirect effects of historical traumas inflicted upon Indigenous communities in Canada underpin the experiences of Indigenous children today. The intergenerational consequences of these historical policies and practices were the most frequently discussed experiences of adversity that participants shared. More specifically, events and actions related to colonial practices, especially child welfare policies, are discussed. Events and actions related to cultural disruption, past or present, were identified by participants as traumatic, and some of the consequences of long-standing oppression, suicide and poverty, were shared as adversities relating to historical trauma as well. The past and present consequences of historical policies and agencies that have disrupted and fractured Indigenous families, communities, and culture were broadly characterized by Dahlia who stated:

"I'd say the majority of Indigenous people were exposed to childhood adversities, for most of us having to live as an Indigenous person in this country is in itself an adverse experience. Mild for some, severe for others. We have been 'the others' for hundreds of years. You will always carry that struggle, and of course try to overcome, but that doesn't mean it stops existing." (Dahlia).

This characterization of growing up as an Indigenous person in Canada indicates that childhood adversities are prevalent amongst Indigenous peoples and are associated with the ongoing oppression and marginalization of Indigenous peoples and communities. The prevalence of adversity was further described by Steve, who focused on the historical aspect of factors related to adversities in Indigenous communities:

"Something that may not be as relevant to other children living in Canada is the connection to past trauma that were inflicted on our communities, I can't really think of another group in this country that would at all have the same conditions and factors." (Steve).

Clearly the consequences of historical events and policies, and some current as well, are still causing damage to Indigenous peoples and communities, creating an environment where children can easily be exposed to the harm of current and past adversities.

Child welfare policies and programs

Every participant made a direct reference to the destructive legacy of child welfare policies and practices in Indigenous communities in the past, such as the Residential School program and the 60s Scoop, and in the present, through the policies and practices of child welfare agencies. The harm of the continued separation of Indigenous children from their families and communities was described well by Whitney:

"Feeling the impacts of that child welfare policy. For myself it's a parent, for younger people it's a grandparent, for some older people its themselves, but it's being affected by that elimination policy, that started long ago and in various forms still exists and is still implemented in our communities." (Whitney).

Many participant responses illustrated how some Indigenous adults today have developed health harming behaviours and a reduced quality of life that is linked to the adversity they experienced as a result of child separation policies. Jenn stated her grandmother was forced to attend a residential school and specifically explained the harmful health behaviours she developed:

"She was a very caring and loving woman despite what she had been through. On the surface, you know, smiling, friendly, warm, she would always listen to me. But, but especially when I got older, you know, I'd see the alcoholic side and the anxiousness sometimes, and of course she smoked like a chimney. It was really hard on her and she did her best, like, she was a survivor." (Jenn).

Some participants shared the impact that past adverse childhood experiences had on older relatives, such as their parents, as they grew up. Lindsay shared the impact that unresolved past trauma can have on a person, family or community for generations:

"My Dads dad was a 60's Scoop kid, and it changed him completely. Many families and many of our communities have this unresolved pain, a large factor in the quality of life ... the intergenerational trauma, addictions, the poverty too." (Lindsay).

Another participant, Zack, further illustrated the harm of the 60's Scoop on their family when he stated:

"My father was a 60's Scoop baby and he was in and out of 12 different foster homes over 5 years. And some of them were extremely abusive, not that if they weren't abusive all was fine, but it compounds the pain. 60's Scoop, like, what types of people do you think would be interested in buying a child?" (Zack).

The childhood experiences of Zack's father highlight an important aspect of exposure to the child welfare system, in there are potentially two layers to the harmful adversity that Indigenous children who have been taken from their homes are exposed to: the impact of being taken from your family, and the impact of being placed in an abusive home afterwards. Whitney highlighted that child and family separation experiences are still an ongoing process and were described as a

continuation of policies like Residential Schools and the 60's Scoop that create the inequities and adversities Indigenous children experience today:

"So, the impact that residential schools, 60's Scoop, child welfare system basically, the Indian agents, all the elimination policies that are out there ... the negative impact that has had on our people in being confident as caregivers. So, with that disruption continuing over generations you see it's a cause of so many of today's problems." (Whitney).

As Whitney says, there is a linkage between past traumas and adversities, through intergenerational means, and the current health of families and children. However, it is important to differentiate between the severe impact that residential school exposure may have had on an older relative, and the severe impact that current practices are having on Indigenous children in the system today. Exposure to the current child welfare system was communicated by Danielle as adverse and incredibly prevalent in some Indigenous communities:

"We're kind of blind to the rate at which children are still taken from their families. And I think about the counsellors too, who deal with a lot of foster care and children taken from their families, because it's rampant where I'm from. Cause like if you're going to be racializing a group of people, and they are half the population, it's everywhere. The sheer number of cases of Indigenous children that counsellor would be dealing with at once? Those kids are not getting the attention they would need." (Danielle).

Through exploring participant experiences and perceptions of child welfare policies and practice it is obvious that exposure to experiences within this domain, personal or intergenerational, is consistently harmful to Indigenous children.

Cultural and community disruption

The second most frequently discussed subtheme of historical traumas were the disruption and destruction of Indigenous culture and community organization. The historical oppression of Indigenous cultural practices and beliefs was shared by participants as adverse for many reasons, such as internalizing the negativity, feeling disconnected from their culture, and lacking

connection to other Indigenous peoples. Many participants who discussed cultural disruption shared it as an adversity relevant to all Indigenous peoples, and spoke to the numerous impacts of cultural oppression such as not being able to freely access or express respective cultural foundations, knowledge, or ceremonies. Geoff illustrated this point by stating:

"There is still this tension that exists where, you know, I am encouraged to practice my culture and there are all these things at the systems level that tell me that. But I still, at an individual level, don't feel I am able to. Authorities may not respect it. Or I'm not comfortable with the reactions from others, I don't know many Indigenous people who are. And that's cause of the oppression, I still can't do it like I should." (Geoff).

Some participants described how the imposed structures and practices that followed colonialization completely erased the traditional ways of living and knowing in a very personal way, shifting the way people had lived for centuries. Whitney talked about familial structures specifically:

"So yeah, the caregiving was taken out from under our feet in how we did that. In a way that was communal and familial, and very intimate. And then it [imposed colonial structures] siloed us, like those are your grandparents they live over there, and these are your parents you deal with them. That's not how it was in our communities. That was imposed colonial programming that still harms children now." (Whitney).

This observation shows in a very tangible way that certain aspects of Indigenous culture and tradition have been continually challenged, disrupting the most intimate aspects of life. This disruption of traditional family foundations and practices is still felt today, as the legacy of cultural oppression inhibits the return of some traditions. Simone spoke to the disconnection and harm that can be felt as a result of historical cultural oppression:

"Indigenous children today, from the cultural genocide that happened and stuff, like, can't connect with our culture the way they need to. There is this barrier to fully embracing their identity and the window in childhood is the best time to learn and apply that knowledge, so you grow up with it, but it's not there." (Simone)

A more concrete example of this was shared by Lindsay:

"Imagine you're a young Indigenous boy, right, with long braided hair and you wear it a certain way and you talk proudly of it. But you're always kind of told to knock it off, you know, do you really have to, that kind of talk. That's cultural expression, that's being proud of your culture. But you're growing up being told that it's unnecessary." (Lindsay).

Some participants also spoke about how cultural disruption can happen in a physical manner, like Tim did when describing the stress and consequences of being dislocated from your community:

"I think dislocation can be adverse because whether your community was historically displaced, or is consistently, you know, having to evacuate because of water mismanagement for example, like up north, it's all very stressful and can have a huge impact on health, emotions." (Tim).

For Indigenous children from communities like the ones Tim described, the impacts of permanent dislocation, or constant evacuation can potentially have serious developmental and mental health consequences.

Cycle of poverty

The cycle of poverty prevalent in some Indigenous communities was brought up by participants as inextricably linked to the oppression of Indigenous communities and was an overarching factor in adversities amongst Indigenous children. Geoff stated that:

"When your existence is marginalized, and you see generation after generation living in poverty, there are... less resources, possibly more crime or violence, so it's an upstream factor to some of the experiences I told you earlier because it is a bad situation for children to grow up in. That constant stress, never having enough." (Geoff).

Geoff's observation connects the social marginalization of Indigenous people and communities and the prevalence of children living in poverty. Another participant, Zack, furthered this idea by stating that poverty is not just an overarching factor that facilitates exposure to other adversities, but is an adverse experience itself:

"I think a lot of children may be growing up in this context where everyone is poor, communities have no investment in them. There is little hope for change or improvement. That generational cycle and normalization is very dangerous. People lose motivation from just seeing poverty everywhere." (Zack).

Zack felt that the cycle of poverty in some Indigenous communities is adverse itself, because of the potentially long-term effects on perspective and personal value. Zack's comments allude to the impact of living in poverty being very detrimental even if there are no other adverse exposures. Food insecurity was brought up by one participant while discussing adversities related to extreme poverty. As Steve explains, being unable to ensure food is available can have a huge impact on children, since food is such a tangible and recognizable thing to be going without:

"Food insecurity in some communities, that's a lot for the children to go through. You cannot notice that your parents have trouble paying bills or that you don't have certain things, but you'd sure notice there not being enough food around." (Steve).

Although there are many upstream factors and barriers that produce food insecurity and are out of an individual's control, as Steve states, experiencing food insecurity is a noticeable stress on children.

Suicide

Suicidality and suicide in the community were both raised as a prevalent adversity that currently impacts Indigenous children and communities. The damage of suicides in some Indigenous communities was illustrated by participants when they shared their personal experiences and observations of the harm done to their communities. While Kerry discussed the impact of suicide she highlighted the prevalence and impact across so many Indigenous communities:

"I know we've probably all experienced suicide in our communities and it's really, really triggering for people with mental health, and even for people who don't have mental health issues, and just so common it's so frightening." (Kerry).

Another participant, Kate, spoke to the harmful impacts that widespread suicide, or suicidality has had on children and youth, especially if they have a personal relationship with someone who has experienced suicidality:

"Knowing someone who committed suicide or is suicidal is definitely a harmful experience to go through. The emotional trauma in the short-term obviously, but in the long-term possible struggles with their mental. Suicide has been an issue in my community, and much more now, you know? Maybe I didn't notice it as much back then, now almost everyone I know from home has had family or a friend take their own life and that is a hard thing to wrap your head around when you're young." (Kate)

Clearly, Kate feels that Indigenous children growing up in communities where suicide, or suicidality has become common may have direct relationships with a close friend or family member experiencing that.

Theme 2: Lack of Public Services

Another overarching domain of adversity shared by participants encapsulated experiences related to poor quality public services. Many participants shared and described the lack of quality infrastructure in some communities, and its perceived impacts on children. Specifically, issues surrounding water access quality, accessible and appropriate health services, and housing were included in this domain. Sierra described the multifaceted nature of poor infrastructure and public services that can cause significant stress on children broadly by stating:

"One of the things that can cause children significant social stress or whatever are the poor quality of our communities. Water, roads, housing, housing is huge cause you have badly built homes with so many issues and also cause you have 12 people in a 5 room house. Water, you have children who have never been able to access clean water at home, and that has a lot to unfold too. Huge stress on kids, they notice." (Sierra).

As Sierra shared, bad infrastructure and public services can have huge implications for children, both directly and indirectly.

Water

The most frequently discussed infrastructure-related adversities were those related to children living in Indigenous communities that suffer from a lack of water availability, or poor water quality. Eden shared the importance of these water issues and the multiple consequences when discussing the some of the impacts:

"When you sent me that question the first thing that came to mind was children who grow up with unsafe water in their homes or community. First, the not being able to drink it or cook with it, but second, the mental impact that has. You live in Canada and you have no water, it's denying a human right." (Eden).

In addition to the physical health consequences of consuming unsafe water, Eden speaks to the psychological impacts of not having safe water available as well. She highlights that poor-quality drinking water is typically associated with physical health hazards, but there are mental and emotional burdens associated with a lack of clean water too. Kate shared how this is particularly relevant to Indigenous children, as they may have suffered from the lack of water in their home community, but may be now suffering stress as a result of living somewhere that has clean water:

"I thought about Walpole, Grassy Narrows, Attawapiskat, and their water issues. And that has impacts obviously for the people living there, right. But also ... it has an impact on people who leave, especially to young students. It can have a cultural impact on people because you get used to having to ship bottled water in, not being able to turn on the tap, thinking about people still stuck with bad water and you're coming to a place with good water. And it's possible the dislocation aspect, now you have this luxury, maybe you're not even wanting to move back home because of getting used to this luxury and now you feel guilty." (Kate).

As Kate shared, these experiences can become very complex harmful as they shift from a more physical childhood adversity to an emotional and personal struggle in adolescence, potentially compounding the harm experienced as a result of water issues.

Lack of appropriate and accessible health services

Additionally, study participants discussed experiences related to generally poor healthcare while addressing a lack of infrastructure and public services. The most frequent issues when talking about a lack of accessible and appropriate health services available were unmet healthcare needs and the subsequent consequences, such as side effects and comorbidity. In contexts where there is poor access to healthcare there can be missed diagnoses, or treatments, which can possibly lead to a healthcare need that will not be met, as described by Jenn:

"Challenges that many Indigenous children might face too are undiagnosed or misdiagnosed challenges ... people who are FAS, if it's undiagnosed it's a problem that will burden them for a much longer time in a more severe way. It needs to be noticed quite quickly." (Jenn).

Here Jenn has clearly emphasized the burden that untimely access, or no access, to the appropriate health services can place on an individual or family. Without access to the proper health services, health problems can quickly escalate and have life-long consequences that cause significant stress. Another participant, Claire, shared her personal experiences in trying to access appropriate and timely help:

"I was dealing with PTSD at the time, I had undiagnosed PTSD the whole way through. I went through some health problems where I could barely eat, which was horrible because I love eating. And I talked about a lot of stuff to a lot of professionals, and no one once referred me to the psych ... like someone who could diagnose me, maybe there wasn't one around I don't know. One person told me I likely had depression but since they weren't a doctor they couldn't diagnose me." (Claire).

Claire further described how the inability to resolve, or try and treat her condition was particularly taxing because no one with the authority, or knowledge to provide help was willing to assist in navigating a complex public system:

"I got bounced around a lot when I went and tried to talk to people. I'd be like 'hey, I have this issue', and they'd talk and be like 'okay go over there'. And then I'd talk to them and they'd be like 'go over there'... and so I literally spent 4 or 5 hours one day walking around, I eventually went home and was like I give up." (Claire).

In these contexts, the health issue is itself a challenge, but the inability to resolve, or improve conditions is what is considered substantially adverse to children. This experience can have far-reaching consequences outside of the specific event since the relationship with, and trust of, the healthcare system and professionals has been damaged.

Housing

Lastly, experiences related to inadequate housing were shared as having a significantly negative impact on children by many of the study participants as well. For this study, housing issues included settings where there was an inadequate amount of housing, and therefore overcrowding, as well as a low quality of the housing that was available. Ben described the inadequate amount of housing in their community by saying:

"Housing, or lack of housing. Lack of good housing, there are kids in my community growing up who I swear, have no idea what it is like to have space. They've been bouncing around overcrowded dwellings their whole lives, I feel so bad. There's no way that isn't incredibly stressful." (Ben).

Living in an overcrowded home means there is a greater potential for children to be exposed to communicable illnesses, but, as the quote illustrates, there is an emotional harm to growing up in this context as well. Lindsay briefly spoke about the poor quality of housing she has seen in communities while broadly discussing poor quality infrastructure:

"Some communities have just been so neglected, they're isolated so it's kind of out of sight out of mind. Just as I'm thinking about it again there are the smaller things we don't recognize. Like, no fire or ambulance teams, mental health services, getting around, like, transportation. And poor housing is not a good setting for kids, too many people, too many issues, too many potential dangers." (Lindsay).

Numerous participants identified poor housing as an adverse experience and there were many ways in which it was framed as a problem, from the structural worries, or the physical dangers of overcrowding to the mental and emotional impacts of those environments as well.

Theme 3: Household Dysfunction

Many of the events and experiences that were shared by participants as adverse fit into the domain that is most comparable to those on standard adversity surveys, household dysfunction. This theme captures the childhood events and experiences that happen within a household, or community and include sudden loss of a family member, abuse, exposure to someone who has a severe addiction, neglect, and exposure to serious crime. Tim stated how an atmosphere of household dysfunction can have a lasting impact on children:

"Home and family life might not be good too, maybe they don't want to go home, there's so many things that I can factor in. But it can be very stressful for them in a number of ways and can destabilize for a long time" (Tim).

A safe and stable household is paramount to a child's healthy development, and lack thereof can expose them to a number of interrelated and concurrently occurring adversities. Another participant, Whitney, described how compounding adversities can happen in an atmosphere of household dysfunction, even if everything appears fine at first glance:

"For me growing up, my Dad was an alcoholic and my Mom was abusive ... my parents worked hard, so we had a roof over our heads and we had things that other people seemed to desire. But behind that was the addictions and the abuse, and that was one thing that definitely impacted myself." (Whitney)

As described by Tim and Whitney a sense of household dysfunction during childhood, shown through a myriad of individual, or familial events and exposures, can adversely impact children during the moment and through delayed consequences.

Loss of a family member

The sudden loss of a family member can be particularly hard and damaging at any point in life, but particularly during childhood. Many participants shared that losing a family member in childhood due to addictions, suicides, or accidents can be prevalent in some Indigenous communities. Kerry described how the loss of a close family member during childhood impacted them and how they were unequipped as a child to be dealing with such an emotionally turbulent event:

"My brother was killed by a drunk driver when I was younger. That was really hard for me and my family. That was like, my first death, I didn't even know how to grieve so that stuck for a long time." (Kerry).

Another participant, Whitney, connects how the family deaths that happened one after another adversely impacted them. Again, since she was young and inexperienced in dealing with or conceptualizing death, there were numerous consequences that resulted from the stress of the events:

"I put family and community deaths, and that's based on my own experience. When I was in college I had three family members die. My grandma, my great aunt, and my great uncle, boom, boom, boom. They were all siblings and they all died, one right after the other pretty well. That affected me in school especially, I didn't know how to handle the grief ... deaths can impact people like, sleep-wise too. For me there can be physical impacts too, because like, I take care of how I eat but I just ate whatever was in front of me, I just didn't have the motivation to cook for example. I was depressed because of the grieving." (Whitney).

Whitney clearly details the negative outcomes that were a result of suffering this adverse experience of multiple family deaths so quickly in childhood, and connected the stress and grief they felt to disrupted sleeping and eating patterns, even to experiencing depression.

Abuse

Events of physical abuse can be traumatic and have many short and long-term harms, especially when performed by a parent, or family member, as explained by Claire:

"Our house had to be Martha Stewart clean. And if it wasn't she would grab you and shake you. One time she was at the top of the stairs and did that and I fell down, thankfully we had a landing three stairs down and I caught myself on the door. But my dad came around the corner, I saw him, and I broke down crying. And I've since gotten better but that was a PTSD factor." (Claire)

As Claire shared, this event of physical abuse impacted her because of the physical harm when it happened, but also because of the emotional and mental harm that followed in the form of PTSD. The impacts of abuse were further illustrated by Eden, who first describes an incident of physical abuse in their household, and again connects that to the damaging outcomes that were exhibited later on:

"My Dad would grab my brother and almost toss him across the room, I don't think he meant to hurt him it was just that he was in that angry state and didn't realize how aggressive he was being. But now he has deeper issues with some people, with authority, from my dad, you know." (Eden).

Other times participants discussed the impact of events of emotional abuse directly. Claire reflected on how being exposed to an emotionally abusive parent adversely impacted them and their siblings:

"I remember ... even in early high school she would corner me and demand that I look at her scar and then scream at me that it was my fault. I was a fetus at the time, like, there was no decision, I was just sitting there going 'I want out!'. Even though I have no memory of it, I find it still very fitting for the rest of my life. I carried that weight for so

long, thinking it was my fault. Just the point though that in her mind it's okay to scream at your child like that." (Claire).

Undoubtedly, the event described would be emotionally traumatising, and Claire clearly communicates that impact when they described that experience as a narrative that has continued to influence their lives. Another participant, Jenn, echoed how the experience of emotional abuse can cause continual stress and harm:

"...never really felt comfortable around my family, alone with my brother mostly because he was so hurtful emotionally. I didn't even feel safe alone at my house, I realized that after I did feel safe in a home, what I was going through." (Jenn).

Addictions

Experiences of continual exposure to someone with a serious addiction was discussed by many participants as adverse, and as an issue potentially leading to exposure to other harmful and damaging experiences. One participant, Steve, described one of the reasons that issues related to addiction are prevalent in Indigenous communities:

"These are addictions that come about as part of an unresolved personal trauma, that's why they are so rampant and impactful in our communities. That's one of the ways this trauma gets passed on to generation and generation." (Steve).

Alcohol addictions and problematic drinking habits were identified and discussed by numerous participants, most often in relation to the habits of a family member they lived with. Zack described the impacts their father's addiction had on their home growing up:

"But he was an alcoholic, still is, he has many health problems, so there's ... he's just a very miserable person, made everyone else miserable. Thinks like everything is awful, has these addictions, drags everyone down ... wasn't the best situation." (Zack).

Another participant, Whitney, described in further detail the potential lifelong impacts that she felt are a result of childhood exposure to someone with an alcohol addiction in their household:

"Growing up with an alcoholic parent, for myself, created compulsivity in me. I needed to know beforehand what I was walking into, that things were a certain way. I know if things weren't a certain way when my Dad came home that it would be chaos, so it's like I was always preparing for what might be. I couldn't adapt to change well because I feared that chaos." (Whitney).

As Whitney identifies, compulsivity was a result of intimate exposure to someone with an addiction and the stress that exposure caused. Addictions to illicit and over the counter drugs harm not only the person taking them but those around them as well. The impacts of addiction were illustrated by Kate when describing how addictions in the household adversely affected a friend by upending the reliability and regularity typically found within a familial household:

"My friend's mother had an addiction to painkillers and their house was chaos. All the time. There was no foundation or structure, my friend was always coming over to our house because unexpectedly no one would be home for hours." (Kate).

Another addiction brought up by some participants was to gambling, the harms of which can clearly influence a household in many ways. Geoff described the impacts of gambling addictions on families in their community:

"Gambling is a big problem in my community and I have seen it tear families apart. Obviously, like, you're losing money. But money can either hide problems or, if you don't have any, create problems. It kind of opens the door for other things like crime, theft, you know that kind of stuff just to keep the addiction going." (Geoff).

Here Geoff described that although gambling addiction is often framed as an individual problem, it can have many direct and indirect impacts on a household.

Lack of parenting

Numerous participants shared their observations, or thoughts on how a lack of parental guidance, or presence can be directly harmful to children. Whitney described how experiencing neglect is interrelated with different types of household dysfunction, or adversities that can come together to create a home situation that is damaging to children and their development:

"So, because of the addictions sometimes ... like it's in the house, the substance abuse is in the house ... or there is a lot of people who leave their kids home alone for a long time, so there is that neglect and ... in that stage, that period [formative years], there is a lack of guidance because of those addictions and abuse." (Whitney).

Another participant, Ben, echoed the fact that other adversities, exposure to alcoholism in this example, can potentially lead to a lack of parenting and guidance even if there is someone home as well:

"My Mom had to be the discipliner because my dad was an alcoholic. When he was drinking he would be gone sometimes weeks, so it was just my Mom. You just can't keep an eye on everything when there is essentially one parent and so a lot of things can go unnoticed." (Ben).

Both Whitney and Ben perceive the reduced ability to keep children safe and away from other potential harmful exposures, or adverse events as one of the consequences of a lack of parental oversight. As shown by the participant's comments, most experiences, or observations in relation to a lack of parenting, or guidance were interrelated to exposure of other adversities and were not described as purposely neglectful, or harmful parenting.

Exposure to serious crime

Some participants shared that they felt harm from the stress of being exposed to serious crimes, or someone convicted of serious crimes, as a child. These exposures may have occurred inside their own household, or in the immediate community, as described by Simone when referencing stressful events that happened in their neighbourhood:

"There was a lot of crime in the neighbourhood I grew up, really bad assaults and theft kind of stuff. When you were talking about social stress earlier I thought the tension that comes with living in that kind of situation would be the same kind of thing." (Simone).

Simone clearly stated that living in a community with high crime rates as a child had an impact on them through constant social stress and tension. Another participant, Dahlia, spoke about how

exposure to a family member who had been incarcerated was a stressful event that created tension and chaos within their household:

"My uncle has been in and out of prison my whole life, when he used to come around it would be chaos because my mom didn't want him in our home and I guess I really picked up on that ... I remember just being really on alert when he was around, my Mom said we didn't trust him." (Dahlia).

Clearly, these are impactful exposures for children, whether they take the shape of direct exposure to crime, or a perpetrator, or it's just prevalent in their community.

Theme 4: Gender-based Adversities

Participants repeatedly discussed and detailed the widespread issues and impacts surrounding gender-based violence and the victimization of Indigenous women. Sexual assault and sexual harassment events were the second and third highest impactful experiences on the quantitative rankings scale across all participants. Exposure, or experiences related to domestic violence were also included in this domain, as were experiences of severe gender discrimination. For these reasons, the incredibly personal relations and exposures to the events that entail the missing and murder Indigenous women crisis were highlighted as a distinct adversity some Indigenous peoples have experienced as well.

Sexual harassment

Sexual harassment is very harmful, and participants shared personal experiences, experiences of friends, or family, or experiences of Indigenous women generally in this category. Dahlia described a personal experience of sexual harassment and racism, and how harmful that experience can be for Indigenous women:

"Being Indigenous, it's a vulnerable combo. I can't tell you how many times random guys or like a group of men have yelled 'Hey Pocahontas' at me and then just continue, like, this ridiculous sexual and racial harassment that is quite disturbing." (Dahlia).

These kinds of experiences highlight the intersection of racial and sexual discrimination and harassment where Indigenous women find themselves, and where there is a large potential for significant adversity and victimization to occur. The prevalence of exposure to these experiences among Indigenous women was described by Kerry as she spoke about the more long-term effects of being sexually harassed:

"I think most women would have at least a few times where they have really felt threatened, unsafe, because of harassment, like that is jarring. Its unwanted attention, it's really harmful like I can still feel really off for days after like someone treats me or like ... yeah, harasses me like that." (Kerry).

Two participants spoke personally about the direct and indirect impacts that stalking specifically can have on someone as well. The negative impact of these experiences is not restricted to the moment they happened, they were continuously described as having long lasting effects:

"I've been stalked before, to the point of having to get a restraining order placed on this individual. I was 17. That was really hard, I didn't feel safe anywhere, for the longest time I was always with a friend." (Sierra).

"The guy who stalked me ... it was traumatic, he would start following me home, and it just kind of pushed me out because I didn't know what to do, at all. And I mean, it greatly impacted my grades, my emotions, my health, I would get so uncontrollably anxious sometimes." (Claire).

Clearly these experiences of harassment have a harmful impact, and the severity of these adversities are reflected by Sierra's and Claire's comments on their thoughts and behaviours far after the event.

Sexual assault

Similarly, events of sexual assault were described by participants as particularly adverse and incredibly damaging as well. A common thread when sharing these experiences of sexual assault were the connections to broader, societal issues, and that the harms can negatively

influence someone long term. Although experiences of sexual assault are included in standard adversity measures, these experiences were characterized as having a particularly systemic aspect when experienced by Indigenous women, as characterized by Danielle:

"I feel that Indigenous women particularly are very vulnerable to sexual assaults. We're viewed as easy prey for all the sexual and abusive predators out there because... we're not valued in the same way. That's why you have such huge numbers of missing and murdered Indigenous women, we're easy targets." (Danielle).

Another experience related to sexual assaults that was shared as damaging by participants was damage to personal relationships and overall community well-being. Kerry highlighted this when saying:

"Sexual assaults are a huge issue in my mind. Guys ... men now I guess, that I grew up with, you know, you find out they have been assaulting girls in the community and... you know, it's terrifying, it is traumatic for those girls obviously, and the community. Like, we all raised those boys." (Kerry).

Here, Kerry states the traumatic effect of being a victim of sexual assault, but also identifies that there are numerous direct and indirect harms that sexual assaults can have on a community. Personal relationships, or connections to the victim, or the perpetrator can cause significant stress for individuals and an entire community. Similarly, Ben described how sexual assaults can reduce the social cohesion of a community:

"It's very complicated, especially if the abuser and the victim are both from there, but it creates tension, right. Especially in small communities where everyone knows everyone, and now you have this pain and trauma that someone has done to another, and it destroys the, the social fabric of that community, now they have to find a way to get through that together." (Ben).

As shown by Kerry, Ben, and other participant observations and experiences, events of sexual assault adversely impact the victim, potentially entire communities, and the community of Indigenous peoples in Canada as a whole.

Domestic violence

Childhood exposure to events of domestic violence were described by many participants, who touched on specific instances of violence, factors leading to those instances, and the farreaching consequences of being exposed to intimate partner violence. When talking about familial issues, Claire described the kinds of violent events that occurred in their household:

"Yeah so, my Dad is a pretty benign character in my childhood story. He could be very violent, but he was never violent at me it was my mother. And even then, it was my mother and my dad both liked to throw things at each other. Usually the ceramic pots, I don't know why. I mean it was ... destructive." (Claire).

Settings where there are physical threats and violence are extremely stressful and damaging for anyone, but the impact on children can be especially severe, and can have implications for their future relationships. For example, Simone explained how witnessing events of domestic violence between her parents influenced her own personal relationships:

"Yeah, I mean, my Mom and Dad used to beat the shit out of each other sometimes. I don't know why they were together, they had problems it was like why fight all the time. I'd burst into tears because it would make them stop. I realize that one, my Mom didn't really have anywhere else to go and two, it influenced my relationships with men for a very, very long time." (Simone).

Some participants also brought up one of the potential consequences of experiencing, or witnessing domestic violence: the experience of having to stay at a women's shelter. These types of experiences were described as further compounding the stress and harm of a domestic violence situation by Sierra:

"My friend and her Mom had to stay at a shelter for a while, they were away from our community and her Dad was ... he had his issues and stuff, and so her Mom made the right choice to leave, but like, that was traumatic too." (Sierra).

As Sierra describes, the physical acts are not the only damage associated with domestic violence since the adverse consequences can include having to leave home communities, or spend time in

shelters that compounds the emotional harm. Events of domestic violence produce a range of severely harmful and persisting consequences that can impact and traumatize children in both the short and long term.

Missing or murdered Indigenous women (MMIW)

An important dimension of the gender-based violence domain is the trauma associated with the crisis of missing and murdered Indigenous women in Canada. Participants described how the prevalence of MMIW across Canada has an incredible impact of young Indigenous women, regardless of any personal experiences, or connections. Kate shared how these events can be broadly impactful to all Indigenous women:

"Our sisters, missing and murdered indigenous women is on my mind so much of the time and I think it is necessary to include in this. I know you said this was already on these surveys as sexual harassment or assault, but it is particularly stressful for Indigenous women because even if it is not happening close to you it is still hard. There is still harm and grief and worry for our sisters." (Kate).

Clearly, the sheer number of missing and murdered women and girls is an issue affecting all Indigenous peoples and communities as the crisis has shown how Indigenous women are frequently victimized and, as stated earlier, are over represented among crimes occurring at the intersection of racism, sexism, and colonial attitudes. Another participant, Lindsay, echoed this sentiment when she stated:

"The missing and murdered women crisis is different from just murder or sexual assault on their own because it is everywhere, and it makes everyone fearful, it puts that in the back of your mind even if you have no reason it would happen to you." (Lindsay).

Here, Lindsay describes how the events and experiences related to the missing and murdered Indigenous women inquiry in Canada have had adverse influence on communities and the Indigenous population as a whole. As stated earlier when discussing experiences of sexual

harassment and assault, the consequences and harms of these gender-based adversities extend far beyond the instances themselves, especially when they are so prevalent.

Gender discrimination in other settings

Other instances of gender-based adversities that were brought up by participants were those related to being denied opportunities because of their gender. In particular there was a focus on being denied raises, or roles in employment, or academic contexts that men were not. Eden described how she remembers being impacted by one such experience when interviewing for a job:

"I wanted my own money, that's why I had even gone in the first place. We talked for a couple minutes and I thought everything was going well but then he started saying there was some labour involved, lifting boxes kind of thing, and so I wouldn't be right for the job. Like, I've always been a big, athletic girl, so it wasn't because I couldn't do the work. I cried to my mom when I got home, I was so worked up that he assumed I couldn't do it because I was a girl." (Eden)

While reflecting on the experience, Eden alludes to the sting of being denied the opportunity because she was perceived as unable to do the task just because she was female. Another participant, Sierra, described in detail how they were continually told to stop caring about athletics because they weren't a boy and how damaging that was to their confidence and identity:

"I've always been really into sports and pretty athletic, my favourites were basketball and cross country running when I was younger. One harm that I experienced I guess because of that, that really did a number on me for a while was people saying you're a girl stop bulking up, stop focusing on sports, guys don't like sporty girls, all that kind of stuff. When you're young you don't know that that isn't right, I didn't know, like, I took it seriously and worried about that and stopped doing what I found joy in. When I came to university is when I kind of got over that, and ... was just happier." (Sierra).

Here, Sierra describes that she felt adversely impacted by the gendered assumptions and barriers to participating in events that brought them confidence. Being judged in this manner resulted in a

significant pressure to change themselves, and a long-standing influence on their decisions and perceptions of themselves.

Theme 5: Racial Discrimination

Acts of racism, or discrimination based on ethnicity were shared as incredibly common and damaging to Indigenous children's health and well-being. Many different types of racial discrimination are included in this domain since experiences of racism are not limited to one setting, or group of perpetrators. Being bullied as a child because of ethnicity was the most common adversity discussed by participants, and instances of overt racism in public settings, or when accessing services and institutions were highlighted and described in some cases as a barrier to social, or economic opportunities as well. Racial prejudice amongst family, or community members, also labelled as lateral violence, was shared as particularly harmful to children as well. Ignorance about the colonial history and the ongoing oppression of Indigenous peoples and communities was also identified as adverse as it created an atmosphere where the traumas of Indigenous peoples and communities is easily devalued and can potentially feel tokenized.

Ethnicity-based bullying

Instances of extreme bullying based on race or ethnicity were identified by participants as extremely prevalent, especially while at school, or other spaces children frequent. Most of the bullying events related to this domain that participants shared were directly, or indirectly about looking different, or physical characteristics. As Lindsay described their sister had physical features that other children would bully her about:

"My sister looked really stereotypical, she would get bullied verbally by other kids a lot for that. They'd make fun of her hair and her skin and her face. I have always kind of

looked like this, so I wasn't bothered as much but it's not like she could change what she looks like, right, and that is really hard for kids to understand." (Lindsay).

Lindsay can clearly identify that these instances of bullying were focused on her sister's appearance, and that therefore the bullying and emotional abuse had racial undertones. Another participant, Zack, reflected on his experiences of racially charged bullying that him and his friends were exposed to as well:

"I experienced racism as a kid, directed at me and my friends from other kids. I had two friends from my community also in my grade and yeah ... my school was mostly white, so we were just an easy target because of that I guess ... when you're a kid you don't really understand it and you might second guess yourself. Kids make fun of kids, I get that, but it's still racist."

Zack's reflection alludes to the potential racial undertones of some severe childhood bullying, and that trying to understand and navigate the complexities of those interactions compounds the harm of the original discriminatory event.

Public experiences of racism

Instances of racism in public settings, or everyday life were established by participants as a major social stressor that potentially had long term impacts on the physical and mental health of those victimized by them. Claire described how they constantly experienced barriers to having their efforts or thoughts valued because of interactions underpinned by potential racial prejudice:

"I know people racially stereotype me, I know cause I'm a small female with not perfectly white skin ... I know that I'm discriminated against, and there's been times where I'd call people out. Like I'm 90% sure you're not listening to me because of these factors. Or they'll say something not really knowing what I am. But it's hard, really." (Claire).

Similar to Zack's reflection described previously, the harm of the initial experience is coupled with the stress of having to confront the racism and navigate the rest of the interaction with that person. Another participant, Whitney, described how some specific settings are still fraught with

racism, and describes a particular narrative in sports settings that they have seen impact Indigenous children:

"When I was younger came from being in a small community where racism is still very prevalent today. Like a lot of our youth still face racism. And when we're playing sports especially, we have a lot of kids who are very athletic and gifted at athleticism, and so you hear it [racist commentary]. And so, it's frustrating that you couldn't just say 'that was a really good play', or 'that person is really good at that or this'. It's like ... it's not complimentary, it's just racism. So ... we learn to internalize oppression, we learn that to not lift people up." (Whitney).

Whitney explains that a public setting in which children should feel comfortable, and where they are practicing healthy habits and potential coping mechanisms, can easily be tainted with experiences of racism that children can easily internalize to cause significant harm. It is important to note that experiences of racism related to public settings, or institutions can also have a detrimental effect on educational, or economic opportunities. Geoff explains how racism can be a significant barrier to things such as youth finding employment:

"I know of instances where young men and women are trying to enter the workforce but are racially discriminated against when they interview or, you know, that leniency period ends up in them being let go for really vague reasons which, you know, sometimes you can see it's a racial thing. And that is so hard for them to take that initiative and be shut down, very hard for them, and it's so common in some regions." (Geoff).

As stated by Geoff, experiences of racism that act as significant barriers to employment are undoubtedly harmful and potentially prevalent in some communities. Barriers to employment related to racism have financial consequences that can be severely damaging as well, and these may be potentially compounded the harm of the initial adverse experience. These same race-based barriers can be present in educational settings too, with equally severe and multifaceted consequences, as explained by Whitney:

"So, our children, our youth, they are excluded and discriminated against in an educational sense ... like with funding for students, cause we get peanuts in terms of

school. Big gap, huge gap. Especially with learning needs in our communities often being high, we don't have the funds to be able to get teachers who have special needs training. So, like, that is a barrier, we feel that when we're in school, we feel that tension and harm." (Whitney).

Here Whitney brings attention to the fact that in some contexts the racial discrimination and barriers occur at a systemic level, for example, through government education policies. As explained, children can feel the tension created by that broad racial prejudice acting through policy level decisions, and potentially internalize and exacerbate the harm of such adversities.

Community racism and familial prejudice

Lateral violence was identified by many participants as significantly adverse, and participants described this particular set of prejudicial experiences as having an enormous impact in Indigenous communities, and on children especially. Lateral violence can be prevalent within oppressed groups of the dominant society as experienced through the bullying, devaluing, shaming, distrust, and blaming of other ingroup members that perpetuates the type of abuse carried out the dominant society (Bombay et al., 2014b; NWAC, 2011). In the context of Indigenous people in Canada lateral violence is the result of continued colonial methods and actions that create cycles of abuse and turn community members against each other, in part because of the inability to influence or direct anger at the oppressive system (NWAC, 2011). Jenn described the attitudes within her family that caused significant harm through personal exposure to lateral violence, or discrimination:

"My family is a real continuum of Indigenous and white ... uhm, do you know about lateral violence? Cause honestly, I think that half my family are probably the people who have been most prejudice to me. I have never felt like I was native enough, like I didn't fit the mold. But then my white family doesn't think I'm white enough either. I know it's not purposeful and just ... over time something that has been done to divide us but it's still whatever you said, adverse to me." (Jenn).

What Jenn describes is a very harmful and pervasive attitude that has turned what should be an intimate, supportive group of people into a damaging and toxic one. Navigating that atmosphere and being exposed to that attitude from such a close group of people can have significant adverse influences on health and well-being. Another participant, Claire, described how they experienced lateral violence when they were discouraged from participating at their student centre by undermining the legitimacy of their identity:

"When I was in Ottawa I tried going to the one [Indigenous student centre] at Algonquin College and I basically got yelled at because I didn't know my band number. The Métis I know don't have bands but these people were so exclusive about it, and it felt like I didn't count and they wanted to push me out cause I wasn't pure or something." (Claire).

In this instance of discrimination Claire felt that the value of their identity was diminished and that resulted in feelings of inadequacy in a space of expected inclusive attitudes, causing stress and harm to their emotional and mental health. Numerous participants also discussed the impact that having family misunderstand your identity can have, such as having to constantly engage in conversations that have racially discriminatory undertones, or having your perspective, or experiences not valued because of your identity. Steve described how these instances can quickly have adverse impacts:

"They think asking these questions about me or challenges that side of the family face are light hearted and just being curious. But it is straight up insulting sometimes, the questions they will ask or the way they'll like mock my responses, it's so stressful I'd just shut up afterwards." (Steve).

As Steve states, the misunderstandings their family has of their identity can cause them to feel that their perspectives, or themselves are being belittled, which, in turn, could cause them enough stress to disengage entirely. Another participant, Dahlia, shared a similar context amongst her family in which she felt discrimination due to her identity:

"Some of my non-Indigenous family look at me and when I say I'm Indigenous or when I raise an issue that pertains to Indigenous communities, I am heckled for pretending to be more Indigenous than I am I guess? They use it to devalue my argument. And I feel it devalues my identity. Since I don't look like Pocahontas I can't be Indigenous? And so, screw my point? So, it's not something I should care about? Like, come on." (Dahlia).

Here Dahlia describes how her identity can be used against her to delegitimize her thoughts, values, or feelings. These experiences of racial discrimination are harmful regardless of who the perpetrator is, but can be especially damaging when initiated, or conducted by family members.

Devaluing identity and lived experience

Another form of discrimination that some participants shared as significantly stressful was the devaluing of their identity, or lived experience, or of the traumas burdening Indigenous peoples and communities. Whitney shared how stressful and draining it is to deal with the ignorance of historical and current oppression through a very common interaction she experienced:

"... basically, the ignorance of the history and even current issues affecting Indigenous people. That can make harm cause you feel a victim of racism. An example I put down was the get over it, we need to get over it, and it's like get over what? Name the 'it', what are we getting over? Are we getting over the child welfare system? We're getting over the justice system? We're getting over the fact that our land has been stolen? We're getting over the continual oppression?" (Whitney).

Ultimately there is an emotional burden, like reopening an old wound, which comes with exposure to these kinds of interactions, or events. As illustrated by Whitney's quote, unpleasant interactions can lead to a sense of feeling that your identity and experiences are not respected by others. Claire described one of these interactions specifically, and how harmful and stressful the experience was:

"Someone told me once that I should not tell my story to people because it makes them too upset. I basically said tough, because that's so extremely inappropriate. I don't get to tell people what I'm going through just because it might make other people sad? Like, deal with it. Sorry my oppression upsets you? It's so upsetting." (Claire).

These interactions are incredibly prevalent, so even if each experience is not harmful on its own, the constant exposure can lead to a level of extreme stress. Lindsay further described the impact these kinds of interactions can have:

"Cause it's the worst when no one believes you or they tell you to settle down, totally devalues my experience and my pain. Like or they'll say what to do you want me to do about it. Like I don't know, just listen? Understand my existence is a struggle?" (Lindsay).

Claire spoke to the impact of always being labelled a victim and constantly treated as such, almost like it is for the entertainment of others:

"Like this marginalized pain, these people seem to thrive off of it. Like I want to feel how bad your situation is so that I feel good for helping you. Trauma porn. Gore and porn are things that are commonly used in the stuff that I read to refer to that kind of like 'tell me how much you hurt'. And it's like I don't think you're in this for me. Like you've let me walk away when I'm done and stuff, but some people push and want to know like so how upset were you, how much did you cry, how much does it bother you now." (Claire).

These types of individual interactions were perceived by participants as reinforcing the devaluing of Indigenous identities and impacts of historical and current traumas. As a result, individuals can experience significant stress from receiving insensitive and disrespectful comments aimed at them, or Indigenous peoples generally.

6.1.2 Resiliency and Coping Mechanisms Themes

Thematic analysis identified 22 codes, which were organized into 4 main themes of resiliency deemed impactful and relevant by the study participants in relation to the second research objective: to understand the factors, or sources of resiliency and healthy coping strategies in regard to reducing the effects of adversity, or childhood trauma in adulthood. These themes are: Addressing Trauma, Cultural Continuity, Social Network, and Personal Attributes.

Many of these themes contain sub-categories that further refined their scope and relation to each

other (denoted * in Table 10). The experiences shared by study participants show that Indigenous peoples in Canada incorporate numerous strategies, approaches, and resources in their efforts to strengthen resiliency and coping skills rooted in culture, community, and tradition. First, coping mechanisms and strategies that aided in healing from direct, or historical traumas were identified and focused on utilizing personal experiences, identity, community, and counselling to overcome adversities. Also, it was shared that overall resiliency was improved by establishing cultural connections in the spaces and institutions that people frequent. Cultural connection included integrating ceremony, language, music, and dance into practices, as well as easily accessible Indigenous programming, traditional knowledge, and knowledge keepers. A major domain of strength in relation to coping mechanisms and resiliency that participants identified was a strong social network, comprised of a caring community, supportive leadership, the ability to build and strengthen relationships, and a sense of belonging and acceptance. Lastly, numerous personal attributes were discussed as beneficial to fostering greater resiliency and coping skills. Personal attributes identified included a willingness to learn and engage, a sense of optimism and humour, confidence, and the mastery of new skillsets, like communication. Although there is no one strategy, or approach that will apply to everyone, a combination and focus on the domains of tools and mechanisms shared can improve overall resiliency and sustainable, healthy, coping strategies.

Theme 1: Addressing Trauma

A direct effort to address specific traumas through both personal and systemic action was discussed as extremely beneficial for coping strategies, by generating healthy and sustainable efforts for overcoming significant adversity and stress. Healing trauma by helping others, or paying it forward, was identified as a major pathway to overcoming stress and adversity.

Accessing counselling. or clinical help as a means of overcoming trauma was clearly necessary to include in this domain, as was the ability to embrace and have pride in your identity as an Indigenous person. Lastly, a greater awareness and understanding of the past and present issues burdening Indigenous peoples and communities was identified as a significant step in healing traumas.

Healing through helping

It was frequently discussed by participants that they experience a sense of healing through helping others in their struggles and uplifting those around them. Participants described that going through traumatic experiences clearly has negative consequences, but the opportunity to use that experience to understand the trauma experienced by others is positive. Using lessons learned from personal adversity was illustrated by the words of two participants, Danielle and Kerry:

"I feel like, uhm ... it's not always a good thing but the lived experience I have is a bonus... you know, to know where the social services are and how to use them to my advantage. I can share that with those who need help in my circle, in my community." (Danielle).

"Yeah. I think lived experience too, it's like when someone comes to you with a problem ... I feel like someone who hasn't had these experiences would just immediately retreat and back away because it's so overwhelming, and it's scary a lot of the time... But having this lived experience you go 'okay, I can help you'. You can take what happened to you that was negative and turn it into a positive for someone else, and you feel better from it all too." (Kerry).

The inspiration to turn negative experiences into a positive force by helping others through similar situations was repeatedly identified as a mutually beneficial route to developing greater resiliency and helping cope with major stressors. Some participants discussed how the professional roles they take on are, in part, because of their interest in helping others and giving

back, and, as a result, helping themselves. Claire described how their job allows them to give back to their community:

"So, it makes my job pretty healing, because I am helping campus and students and those around me. Everyone wins, I get to give back to those things and people that I care about." (Claire)

Whitney outlined her thought process and priorities in regard to using she professional role and position to leave positive impacts in the spaces she occupies as well:

"I'm always thinking, 'how do I leave positive change behind as well?', like you know ... I hope I have brought some sort of positive change or impact in being here, that I've helped something or someone through my work." (Whitney).

Whether in personal, or professional roles, or settings, a concerted effort to help others who may benefit from the knowledge gained and events experienced by participants was motivated by an interest in helping others heal and was shared as benefitting both parties in overcoming stress and adversity.

Accessing counselling

Many study participants confirmed the benefits of clinical and non-clinical counselling, or therapy while discussing healthy coping mechanisms and improving resiliency. Accessing appropriate clinical counselling was critical to the healing of some participants as they worked to overcome personal burdens, best described by this explanation from Dahlia:

"I didn't even know how to deal with that until I started talking with someone. She was at the student centre and she was just somebody that I went and spoke to, like every week I spoke to her. Basically ... somebody to just dump what I needed to get rid of, that I didn't want to carry. We had a shared understanding of a lot of things, it was very special to me." (Dahlia).

Although the person she spoke with was not a formal counsellor, the role they played for Dahlia was therapeutic. Another participant, Sierra, shared how clinical therapies specifically helped a family member heal from childhood trauma:

"My mom had a pretty traumatic childhood, so she goes to a psychiatrist like once a month. She takes her meds, so that's helpful for her." (Sierra).

Obviously accessing clinical treatment, or a professional counsellor has been established as a reliable path, as described by Sierra, but informal counselling, or just having someone who will listen and to talk to openly, plays a similar role and was still viewed as producing positive outcomes too, like Dahlia's experience. Clinical therapies were also brought up by Tim, who discussed how a lack of locally available and appropriate counselling can be a barrier to developing healthy coping mechanisms:

"When people come to my door and I know there is almost nowhere I can send them for counselling that has spaces that offer smudging, that offer cultural ... that offer counselling with some sort of cultural component to it. Or some sort of counselling service that offers access to elders. Or something like that, right? I usually have to end up referring them to just non-Indigenous agencies, right? So, that's just been frustrating. (Tim).

As Tim stated, the importance of accessing appropriate counselling cannot be understated, as other counselling services are perceived as inadequate. These barriers were discussed by another participant as well, when Simone identified that financial privileges were what afforded her the ability to access counseling:

"I went to therapy, for bullying, and that was a very good way to sort of handle the situation. I was very privileged to be able to afford therapy when I was little though. I recognize that helped me a lot but that it's not something everyone gets." (Simone).

Also, the potential for sport, or exercise to be a resiliency building and therapeutic experience was identified by participants and framed in two ways. First, sport was described as a coping

mechanism for dealing with stress and adversity because participating in some form of exercise was very beneficial. Second, sport was described as a coping mechanism because of the social support and network that sport provides. Steve described the benefits of exercise and how he uses exercise as a coping mechanism when feeling severe stress to avoid further harm:

"Sports. Exercise, that physical release. Everyone is different, and some people do other things but for me, exercising has always grounded me when I'm stressed. I must've picked that up from my Dad, he always does that it's like his routine. And I must admit, he is well balanced." (Steve).

Kerry shared the experiences of her sibling, and how the social nature and team building aspects of sport were instrumental in developing greater resiliency.

"After some therapy then my brother went and did like karate, doing physical-like sports. It was a really great release I think, and I think too, like, he gained confidence in himself and grew this social group. And that has a lot of secondary benefits too." (Kerry).

Partaking in non-clinical forms of therapy like sports is especially relevant for children since it is an engaging activity with multiple physical, and emotional benefits and can easily be continued through adulthood as a healthy coping mechanism.

Embracing identity

Another avenue to healing trauma mentioned by a number of participants was embracing their Indigenous identity. Through learning about, exploring, and appreciating one's identity, many participants found a greater sense of self-worth and confidence that helped them build more resilience. Jenn described how her emotional health and well-being improved by appreciating and connecting her identity:

"When I really started to love myself for who I am and stopped trying to fit into other people's boxes it was so like ... uplifting, freeing. I started connecting to my culture more, immersing myself in parts I wasn't able to or didn't know about before, meeting people, networking with people, just being who I was meant to be." (Jenn).

By really immersing herself in her identity and recognizing the inherent value in expressing that identity, Jenn was able to connect to a part of herself that brought her strength and spirit. Another participant, Zack, spoke about his journey to a place where he fully embraced and celebrated his Indigeneity as well:

"When I was younger I guess I didn't have any role models or ... representation in that sense. And being grown up now, I look back, and when I started to really see others priding themselves on being a First Nations person and carrying themselves with respect, I ... really started to take off. So, like, wanting to be yourself I'd say." (Zack).

Here Zack touches on cultural representation and developing a greater sense of self-respect and describes the associations between developing a stronger appreciation of identity and really thriving in adolescence.

Societal awareness of Indigenous issues

A greater appreciation and understanding of the harms done to Indigenous communities and its far-reaching consequences was stated as one step that can be taken towards healing trauma. Many participants shared their thoughts on the potential for improved awareness and understanding as a means to help heal from events of trauma and systemic adversity. Eden shared her perspective on the benefits of increased awareness of historical and current events and injustices that harm Indigenous peoples and communities:

"An underrated thing to me is like, the recognition that there was trauma and that you were treated unjustly, just recognizing that. To know that people are aware of the issues and that it's something people care about, something people see as an injustice, it can really help some of those stressful harmful feelings and thoughts." (Eden).

Here Eden describes the value of recognition and having other people acknowledge the pain and suffering that has been inflicted on Indigenous peoples and communities. Similarly, Lindsay spoke about the potential benefits of increasing awareness and recognition through our education

systems, by teaching more about the histories and trauma inflicted on Indigenous peoples and communities:

"Even just something like including more actual history in history classes, like, knowing that at this systemic level there will be a greater understanding and appreciation for the history and the trauma and the resilience and everything. I think about that all the time, I think it would make a difference to me. To know we're being open about it." (Lindsay)

The lack of awareness and sensitivity to Indigenous issues was noted in the adversity discussions as a significant stressor, and so improving the awareness and sensitivity of Canadian society to the past and present oppression and struggle of some Indigenous communities aligns with the participant's view that it is one of many pathways to healing.

Theme 2: Cultural Connections

While discussing the development of healthy coping skills and resiliency, all the participants of the study spoke to the need for cultural continuity in the spaces that Indigenous people frequent, especially while in school. Integrating Indigenous culture, teachings, and systems into our public institutions and spaces is crucial to help Indigenous people living in Canada thrive and develop healthy coping skills grounded in tradition. Efforts that were seen as addressing cultural connections included looking for opportunities to integrate culture and ceremony, having widely accessible Indigenous-based programming, being able to connect with traditional knowledge, knowledge keepers, or Elders, and practicing Indigenous language, music, and dance.

Integrating Ceremony

When talking about the importance of learning and exploring one's culture, being able to integrate ceremonial aspects into their lives was shared as valuable and rewarding by

participants. Whitney described the benefits of seasonal teachings and workshops that provide an accessible platform integrating culture and ceremony in a meaningful and engaging manner:

"It's important and really beneficial to have seasonal teachings and ceremonies, again that connect us to land and spirit. Workshops that enrich and nourish and list us up to be able to better cope with stress." (Whitney).

Connection to culture and teachings can be uplifting and supportive in a way that facilitates healthy coping when dealing with stressors. Furthering that point, Whitney then discussed a specific ceremony that actively alleviates stress and intentionally helps people deal with trauma, or harm in a healthy manner:

"This is a bundle of burdens, things that I don't want to carry. We put it in this bundle, and we carry it around everywhere, and it teaches me to be mindful of the things I don't want to carry anymore, and then when the waters are rushing we throw it in the water and it carries it off for us. We don't turn back and look at it, so you really contemplate what you're putting in there. And so, it's a burden because you have to carry it everywhere ... so when you throw it away there is such intention. Those are the types of ceremonies that can be done to help students cope, to help them stay grounded and help their foundations remain strong." (Whitney).

Whitney explicitly states that partaking in cultural ceremonies are a beneficial coping mechanism and help build resiliency, and so the opportunity to participate in these experiences has the potential to reduce harms from trauma, or adversity. Another participant, Geoff, stressed the importance of being able to integrate and engage with ceremony and tradition in his everyday life:

"Ceremony is tradition, and traditions are what roots you in your culture and your ancestry and your community ... so engaging in that process as often as I can, because its powerful to me." (Geoff).

Similarly, Kate shared how the ability to freely partake in smudging activities is an intentional action she's taken as part of her coping strategy:

"Being allowed to do something like smudging, it's such an intimate act that you're doing. If you've come from something negative, you want to smudge that away. You want to cleanse yourself off ... so that constant self-care is always happening. It's such a meaningful thing that you can do. To put yourself in balance, then you can forward with a clear mind." (Kate).

As Kate notes, there are numerous benefits to integrating ceremony into the activities and spaces that are frequented, and that establishing cultural continuity is of benefit to developing and continuing healthy coping mechanisms.

Indigenous-based Programming

Numerous study participants also stated how important it is for resiliency to access

Indigenous-based programming, and that it is foundational to the concept of cultural continuity.

Indigenous based programming is an important pathway to engage with and practice culture, but also to establish a platform for growing a community in which people feel safe and comfortable.

Kerry reflected on the importance of places and services that offer Indigenous cultural programming:

"If I were to think back on the one thing that helped me it would be the programs, like places that offer Indigenous cultural things. It's important to have somewhere with people who are like-minded where you can practice your culture in whatever way you may do so. You might have a similar experience to somebody there even and be able to connect with somebody in that space where you wouldn't elsewhere, which is really cool." (Kerry).

Kerry's statement also connects to the concept of healing through helping that was discussed previously, and highlights how Indigenous programs can help connect those who may be able to benefit from the experiences shared between them. It is important for Indigenous programming to be focused on producing positive outcomes by encouraging participation and engagement with the local community, as described by Danielle:

"So, I just, I said for programs to be meaningful and purposeful. That will help build and encourage healthy relationships and healthy coping skills. So, talking and sharing

circles. Having teachings, men's and women's teachings, ceremony, and then having a strategic plan with student centers." (Danielle).

If the Indigenous programming offered is engaging and participatory in a meaningful way then the knowledge, or lessons taken are more likely to actually benefit coping skills, or resiliency. In reference to students and youth in particular, Ben stated that accessing Indigenous centres that offer Indigenous programming is vital to their health and well-being:

"Having access to an Indigenous centre, rooted in traditional values that offers teachings and programs, events, services, whatever, is really important for our youth if we want them to succeed and be healthy." (Ben).

In fact, numerous participants talked about the importance of Indigenous centres and how their staff, resources, and services were instrumental in developing and refining a greater sense of resilience. Sierra explained how the Indigenous centre and its programming was personally significant:

"Coming to the Aboriginal Education Centre at Waterloo [WISC] really helped me grow and thrive. The people, the activities, the space, it's the place that is most comfortable for me." (Sierra).

Feeling safe and welcomed was a major factor for Sierra in her personal growth, and, as many participants alluded to, feeling comfortable in a place that unconditionally respects their identity and offers Indigenous-based programming, in the form of activities, events, or services, was instrumental in the development of resilience and well-being.

Connecting to Teachings

The ability to connect and engage with Indigenous teachings and knowledge was shared as having great potential for fostering development of healthy coping strategies by numerous participants, and was described as a major tenet of resilience as well. Learning and applying knowledge from teachings was explicitly connected to coping with trauma in a healthy manner

by Dahlia when she shared how she benefitted from engaging with traditional teachings and knowledge:

"I find peace in, like, connecting to teachings. So ... I think if you want to reduce the disconnection and the trauma that some people carry, right, then being able to access those and put them in your life for dealing and accepting and learning." (Dahlia).

As part of her coping strategy Dahlia directly looks for opportunities to learn and utilize teachings she perceives as vital to her resilience and in resolving trauma. Whitney described in detail the different meanings, knowledge, and impact that can be found in engaging and learning from traditional knowledge, or teachings:

"They're very intentional teachings, not just cultural activities. When I'm using them, I try to make them very personal, like, it's not just shaker making, you're recreating the creation story with the sound of that shaker. The moccasin you're laying down new tracks, each new hurdle in your life you make new moccasins, cause you're walking a different path." (Whitney).

Here Whitney described how connecting with traditional teachings and integrating them into seasonal activities and workshops is a very purposeful action that she connected to mindfulness and overcoming barriers, or obstacles. The importance of learning traditional knowledge or teachings through engagement with Elders was highlighted and best described by Danielle, who stated:

"Having traditional knowledge keepers or traditional teachers, to help connect to spirit. Because we get disconnected and not even realize we're disconnecting ourselves. And that leads to having faith and belief in yourself. When you have faith and belief in what you want to do and embody you are better off ... but that doesn't come unless its placed in front of you. So, having these Elders and knowledge keepers placing it in front of you, and then you pick it up and go in whichever direction you want to go." (Danielle).

Another participant, Eden, echoed the same sentiment about engaging with Elders as part of establishing a foundation of resilience:

Yeah, it's important that we connect while we're in school and ... stay connected. To help that ... grounding, to help that foundation. And I find when you have knowledge keepers who can do that for you, or Elders, it's important to have that available." (Eden).

Many participants clearly value learning traditional teachings through connecting with Elders, who serve a variety of roles in different communities. Indigenous Elders provide guidance to community members, knowledge of traditional teachings, and have a deep understanding of history, culture, ceremonies, and their communities (Stiegelbauer, 1996). The role of teaching and passing this knowledge onto other generations is central to what an Elder does in their community, and respected Elders will have an active role is many aspects of their community. Many participants shared that this has a very positive influence on health and well-being by establishing cultural continuity and helping facilitate healthy coping strategies and greater overall resiliency to younger generations.

Language, Music, and Dance

Learning, practicing, and integrating language, music, and dance into the activities and spaces that are often occupied by participants was identified as facilitating healthy coping skills and greater resilience. Using Indigenous languages, music, and dance to engage and connect with culture in a meaningful manner were directly described as promoting resilience by Claire:

"Singing traditional songs in my language, connecting with my ancestors, traditional dances ... I definitely think those are really important in fostering resilience and self-confidence through culture." (Claire).

Although learning and practicing language, music, and dance are fairly interrelated, another participant, Simone, spoke about the power and positive impact that hearing the drums and watching people make music:

"Hearing the drums, I remember when I first came, and you guys were drumming. I was just like wow this just feels so amazing. I felt so comfortable, like, at home." (Simone).

Both Claire and Simone describe how engaging with Indigenous music and dance is an uplifting activity that brings them comfort and is associated with developing greater resilience. Learning and using Indigenous languages was especially important to cultural continuity and well-being as well, and reclaiming that knowledge that was previously disrupted also acted as a pathway to greater resilience for Zack:

"Hearing the language, speaking and learning my own language was a factor for me. There is strength and energy in being able to express yourself that way, kind of like finding yourself a little bit, you know?" (Zack).

Coupled with being in a supportive social environment, the opportunity to learn and use traditional languages, instruments, songs, and dances was portrayed by participants as beneficial to healthy coping skills and resiliency by reinforcing the benefits of embracing your identity, learning new skills, and leading to greater self-confidence.

Theme 3: Social Network

When considering coping mechanisms and improving resiliency the benefits of a strong social support network were identified and discussed by numerous participants. Aspects of this network that were repeatedly described as beneficial included being part of a caring community, being supported by leaders, or people in authority, building relationships, and feeling a sense of belonging and acceptance.

Caring Community

The positive influence and uplifting nature of being part of a caring community was touched on by many participants and described as instrumental in their coping strategies and ability to overcome significant stress. Sierra shared how she had never been a part of a caring

community like the one she was a part of now, and that it has become foundational to her resilience:

Sierra: "It's like, we won't let you fall through the cracks, and that's kind of an amazing feeling that I never experienced before in my life. Like I don't I understood community until I came to the centre, at all. Being a part of that community is so important to me now."

Researcher: 'Would you be able to elaborate on why that is so important to you?'

Sierra: "I just feel more open now, like I'm free to talk and share with everyone. Where before I was a bit more closed off and reserved, the community has been really welcoming and so I feel more comfortable now."

Clearly the benefits of feeling a part of a caring community has had numerous benefits for Sierra, but, more specifically, the openness and trust in relying on a community of friends has direct and positive implications for healthy coping strategies and developing greater resilience. The benefits of a caring community were echoed by another participant, Geoff, when discussing how he relies on a caring community and social network as a coping mechanism when dealing with specific adverse events, or stressors:

"Knowing people are there for you, knowing that people care for you, like ... that can validate the experience as not my fault, you know? The legitimate support that people can give you just by being there for you." (Geoff).

Another aspect of a caring community is receiving support from the leadership of whichever context the community is within. Claire shared how supportive leadership in the post-secondary setting was extremely important to them, and a significant factor in how they coped within that context:

"Things were rough and there's something about ... getting that [understanding and support] from an established person that is so important ... like having that validity from a prof for example, a really well-off white guy, was nice, like, someone outside the community understanding what you're going through. It validated me in the system, and that was important to me at the time." (Claire).

Claire communicates that receiving support and validation from someone typically outside of their social network in that context was an extremely positive factor in coping with stressors, and further, the support from leadership in many contexts can set the tone for how others in the setting interact with each other. Operating within a caring, respectful, uplifting community, that has supportive leadership and opportunities to build relationships, participants shared that their ability to thrive despite potential stressors was positively influenced.

Building relationships

Many participants touched on the positive influence that building relationships to establish a strong social network had on their ability to cope with stress and strengthen their resiliency. Knowing that there are good friends and a social network to provide support was shared by Kate:

"Just that ability to love each other so unconditionally, and to understand that you are loved and have supportive people, is very healthy. So, putting in the work to build those relationships does pay off in terms of your well-being." (Kate).

As stated, by investing the time and effort to build and strengthen friendships, Kate reaps the benefits of a strong social network, including greater health and well-being. The benefits of building and maintaining meaningful relationships were further illustrated by Steve when describing how he was able to rely on friendships through stressful events:

"One thing I rely on personally that I think is related to resiliency are my friends, are the friendships we've built and that network that I know I can always rely on." (Steve).

A strong social network is built of meaningful relationships that are directly and indirectly

beneficial to physical, mental, and emotional well-being, but in times of stress a supportive and caring community is paramount to coping in a healthy manner. Claire described how they have lacked a strong social network when they've been in stressful contexts in the past, and that the

social support they feel now is drastically different:

"I have this huge paragraph about the community I've learned from and the teachings I've been given and the relationships I've made. I feel like this family, there is this understanding that once you're in ... these people I feel like in 15 years are still going to send the occasional message to each other, they are actually real friendships. And it feels weird but amazing, knowing that that is what is going on, especially because that's not something I've had experience with or been able to rely on before." (Claire).

Here, Claire states that they have experienced the advantages of a being part of a reliable social network and built healthy relationships, and, as a result, developed a greater sense of community that has improved their health and well-being. Throughout, participants shared that building the relationships required to foster a caring community has numerous benefits and can serve as a facilitator to further growth and refinement of healthy coping strategies and overall resilience.

Acceptance and belonging

A sense of acceptance and belonging to a social network and caring community was specifically mentioned by many participants when thinking about their own resilience, but also when thinking about creating a comfortable atmosphere for others as well. Ben shared the drastic difference he felt within himself when he was finally able to reach a sense of belonging within his social network:

"I feel I can bounce back when I know there is somewhere I can go and people I can be with that understand me and we have that shared experiences and like narratives to our lives, I never had that before and I just love how it makes me feel when I'm dealing with something and ... being a part of it." (Ben).

The acceptance of a social network was clearly impactful to Ben, and this sense of belonging led to improved confidence and well-being. The importance of a sense of acceptance and belonging was further acknowledged by another participant, Danielle, when discussing the benefits of engaging with those that have similar experiences and histories:

"The shared experience of our own histories. I can't believe how similar some of our stories sound when you're Indigenous. Like from coast to coast. A lot of similar histories,

and that's ... yeah, acceptance, for you to understand that somebody else knows your story and understands your story." (Danielle).

Here, Danielle also alludes to a previously mentioned subtheme related to paying it forward, or healing through helping and its association with fostering a sense of acceptance to the benefit of healthy coping mechanisms. Another specific aspect of having a feeling of acceptance and belonging brought up by participants was the freedom to be and express yourself. Lindsay described this best when talking about the sense of acceptance received when being around those with shared experiences, creating a platform in which they were comfortable to be themselves:

"Like I felt accepted because I was suddenly with people who knew what that was like. Shared experiences and perspectives, connecting and immersing in that, just like, being free to be yourself." (Lindsay).

Another one of the uplifting aspects of feeling a sense of belonging in social networks is the opportunity to talk with other people and engage in a dialogue. Kerry shared the benefits she feels from partaking in such an exercise with their social group:

"I feel like talking about things in a group ... the way my community dealt with it was to say, 'you kind of have to deal with it yourself', you can talk one on one with someone if you need to, but we never talked about anything as a group. And then coming to the centre, and just being surrounded by the most resilient people, I love that we do that together." (Kerry).

Numerous participants communicated that the sense of acceptance felt in their social network was directly connected to feeling more resilient, and when participants described the benefits of having a caring community that they felt a part of, they often explained the healthy coping skills and mechanisms they have developed as a result.

Theme 4: Personal Attributes

On a personal level, many practices, habits, and attributes were shared as beneficial to resiliency, or as a direct coping mechanism. Personal attributes, such as a willingness to engage

with people and experiences, mindfulness, confidence, and optimism, were identified as characteristics that reinforce resilience. Learning and gaining skills in areas such as academics, communication, and leadership were also shared as positively influential to strengthening healthy coping skills and resiliency.

Willingness to connect

A willingness to learn and engage with people and places was highlighted as an overarching personal characteristic that fostered greater resiliency and healthy coping mechanisms. A willingness to connect and engage was seen as a pathway to creating an opportunity to explore other coping skills by Jenn:

"I think that the people who can find the strength and persistence to open themselves up to engaging with others and learning and keeping that mind open are the ones who gain the necessary skills to thrive and move forward with their lives." (Jenn).

The importance of being open to new connections was reiterated by Tim, who reflected on the characteristics of those noticeably resilient and able to deal with stress through healthy coping mechanisms:

"The students that I see thriving the most are the ones that are interested in what is going on and able to engage with the people around them, are open and looking to grow and build relationships and networks, for sure." (Tim).

As stated, a willingness to connect and engage with the spaces and people in everyday settings was viewed by many participants as a major facilitator of other important coping and resiliency factors. Those willing to engage with the people around them are actively working on other personal attributes that are identified in other sections such as building relationships, confidence, and communication skills.

Confidence

Developing a strong sense of self-confidence, or high self-esteem was described by participants as a constant process, but one that underpins the development of many healthy coping mechanisms. In particular for Indigenous youth, gaining self-confidence and having respect for yourself was shared by Lindsay as vital to building resiliency:

"Self-confidence ... is hard, but its positive self-esteem and self confidence that gets me through bad experiences. Getting more Indigenous youth to have that self-confidence like that and knowing they are valuable is important, because they've essentially been told they aren't their whole life and chips away at resilience." (Lindsay).

Another participant, Whitney, further detailed the types of efforts, or actions that Indigenous youth entering post-secondary can use to find self-confidence and self-esteem:

"Confidence and bravery, for sure. Like, being able to leave your community is something you come with and have to build on, it's pretty brave to take that step. And that is a foundational strength you can build on." (Whitney).

Efforts to appreciate personal value is important to note as it is especially relevant to Indigenous youth, as many will have to leave their community to pursue not only post-secondary education opportunities, but also secondary education.

Mindfulness

The concept of mindfulness, or focusing your attention on the present moment, was brought up by some participants as a foundational aspect of their resilience and coping mechanisms. While referencing the activities done to cope with stress, Jenn shared the process she goes through sometimes to be more mindful:

"... there are a lot of things we do at the centre and people that are at the centre that remind me of mindfulness. Being mindful of yourself and how you're actually feeling, like I can come to the centre really worked up and angry or like feeling helpless or grieving, and I just talk to people and we'll do things that bring me back to the moment." (Jenn).

As part of Jenn's statements alludes to, there is an interrelatedness between social networks and the beneficial activities one can practice with said network. The process and benefits of practicing mindfulness were more specifically described by Kate when stating:

"Kind of unlearning all these behaviours that we get stuck on even though we know they aren't helpful. Practicing mindfulness helps move you forward, release the past, live in the moment ... be mindful of what you're carrying with you." (Kate).

Although there are a lot of direct and indirect benefits to practicing mindfulness that anyone can do, the descriptions of mindfulness by participants focused on being conscious of how one carries stress from past trauma and grief, which is an important relationship in the conversation of childhood adversities and developing healthy coping mechanisms.

Optimism and Laughter

Being optimistic was identified by many participants as a healthy coping mechanism that was connected to laughing, having a positive outlook, and believing in yourself to overcome obstacles or barriers. The benefits to regularly laughing were highlighted by Eden:

"There is such a healing energy about laughing or laughter, helps ease your problems and just kind of picks you up, it's a reminder to be thankful and it's a reminder that all problems can be overcome." (Eden).

This concept was further described by Kerry when discussing the improvements in her mood and outlook when she has the opportunity to share laughs with friends:

"Just being able to laugh with people, like were very, a community that laughs. And being able to laugh at ourselves and our own situations, has a very healing energy." (Kerry).

In their statements Kerry also alludes to the cultural and community influences in regard to viewing laughter as a coping mechanism. Another participant, Geoff, spoke specifically to the positive impact that laughing can have when trying to frame a problem, or issue that was adversely impacting them:

"Laughing helps frame the problem as not mine, like, 'hey you're a racist piece of garbage?', I laugh it off and move on with my day, you know?" (Geoff).

Whether laughter and optimism were being explored as a healing activity, something that can bring friends together, or a way to positively frame adversity, or problematic interactions with others, they were consistently identified as a health coping mechanism.

Gaining skills

Participants also referenced the acquisition of skills and knowledge as incredibly empowering and beneficial to their overall ability to cope with negative experiences. Acquiring knowledge and refining academic skills is not just a process that is beneficial for educational, or professional purposes, but is something that can improve someone's emotional and mental health as well. By achieving success in the academic world, participants found strength and confidence that boosted other aspects of life as well, which was well communicated by Jenn:

"I find strength in excelling with my education, learning, and being able to apply those skills to solving problems close to my heart. It has made me confident and to really branch out because that used to be really hard for me." (Jenn).

Jenn illustrates how investing in strengthening academic skills has far reaching ripple effects that may improve many of the factors, or concepts already discussed as benefitting resiliency. Ben touched on the interrelatedness of skills that build resiliency and healthy coping mechanisms by connecting the development of leadership skills with gaining confidence and the strengthening of resilience:

"Being able to model leadership skills, learning those skills through times where you have to stand up for yourself or others, having to organize something with other people. Taking those opportunities taught me how to be responsible for myself and my actions, accountability, all these things that give you confidence and build on your resiliency." (Ben).

As described by Ben, attaining and refining leaderships skills can be a valuable activity with numerous direct and indirect benefits, like greater confidence, that can be associated with greater resiliency. Gaining experience and confidence in one's communication skills was shared as incredibly beneficial to developing healthy coping mechanisms as well. Starting to work on communication skills can be the starting point in asking for help when struggling with something, as described by Jenn when discussing being open with emotions:

"Articulating emotions and feelings, I think that is something we all come with but something we can all also learn to deepen. Having an open mind, being non-judgemental, communicating your thoughts clearly. Communicating that you need help even, articulating how and what you are struggling with to get better." (Jenn).

As stated by Jenn, strong communication skillset can lead to positive outcomes, like being able to ask for help, addressing deep emotions, and learning to have an open mind. Strong communication skills, whether articulating emotions, or thoughts, were then further identified as a foundational to advocating for yourself, your friends, and your community by Steve:

"Building on your communication skills, learning how to do that and how to use those skills to advocate for yourself. Learning how to see opportunities to help your friends by standing up for them. So, communicating your needs or your communities ... sharing your thoughts clearly in that confidence way really does help." (Steve).

Strong communication skills are especially relevant for Indigenous children and adolescents since they may face significant societal barriers that good communication skills can help overcome or navigate. The ability to clearly communicate your needs and navigate a system in which you have to advocate for yourself is particularly important to post-secondary success.

6.2 Quantitative Results

Results from the full aggregated ranked list of adverse childhood experiences shared and discussed by participants is shown below in Table 11. Impact was determined by taking the

cumulative impact rank given to an experience across all participants, and the percent-total was determined by dividing the cumulative impact rank by the total number of impact rank scores (715). As shown in Table 11, the study participants generated a substantial list of adverse experiences and events that are prevalent among, and impactful to, Indigenous children. Some of the items on this list are high level domains that were specifically identified, while others are subthemes within domains. Some of the items on the list are closely related to each other but are independent and significantly different from each other. For example, for the purposes of this study experiences of ethnicity-based bullying were perpetuated by individuals who are not Indigenous, and is different than experiences of lateral violence, which is perpetuated by those within the same ethnic group. Although they are markedly different, there is value in looking at the impact of similar experiences as a whole, as certain domains of similar experiences may be more impactful than others.

The most impactful experiences as ranked by all study participants were:

- 1) historical and current cultural and community disruption (6.29%),
- 2) events related to the child welfare system (5.87%),
- 3) ethnicity based bullying (4.48%),
- 4) sexual harassment (4.48%),
- 5) lateral violence (4.34%),
- 6) gender-based violence (4.20%),
- 7) sexual assault (4.20%),
- 8) familial racism and prejudice (4.20%),
- 9) devaluing identity and lived experience (4.06%),
- 10) racial discrimination (3.92%)

There were 35 experiences, or events that participants ranked as impactful that ranged from the most impactful: 45 of 715 rank votes for historical and current cultural and community disruption, to the least impactful: 2 of 715 rank votes for consequences of having someone with a gambling addiction in the household.

There were 5 domains of adversity created from the experiences shared by participants, with the following rank decided by percentage of total impact rank votes:

- 1) Historical traumas (19.58%)
- 2) Lack of infrastructure (12.73%)
- 3) Household or community dysfunction (14.69%)
- 4) Gender-based adversities (20.42%)
- 5) Racial discrimination (25.45%)

Gender

Table 12 (Appendix A) shows the rank voting on specific adverse experiences and events by female participants only (n = 10). The most impactful childhood adversities as ranked by female participants were: sexual harassment (6.26%), events related to the child welfare system (6.26%), racial discrimination (5.66%), historical and current cultural and community disruption (5.45%), interactions that devalued identity and lived experience (5.05%), living in a community with a lack of safe drinking water (4.85%), suicides (4.85%), familial racism and prejudice (4.85%), ethnicity based bullying (4.44%), and public encounters of racism (4.24%).

Table 13 (Appendix A) shows the rank voting on specific adverse experiences and events by male participants only (n = 4). The most impactful childhood adversities as ranked by male participants were: living in a community with poor or lack of quality public infrastructure

(8.64%), historical and current cultural and community disruption (8.18%), gender based violence (7.73%), lateral violence (6.82%), living in inadequate housing (6.82%), the loss of a family member (6.36%), food insecurity (5.91%), sexual assault (5.45%), events related to the child welfare system (5.00%), ethnicity based bullying (4.55%), poverty (4.55%), and the legacy of residential schools (4.55%).

<u>Age</u>

Table 14 (Appendix A) shows the rank voting on specific adverse experiences and events by participants aged 18-24 only (n = 6). The most impactful childhood adversities as ranked by participants aged 18 to 24 were: sexual harassment (9.39%), suicides (7.27%), historical and current cultural and community disruption (7.27%), interactions that devalued identity and lived experience (6.06%), events related to the child welfare system (5.15%), sexual assault (4.85%), ethnicity based bullying (4.55%), public encounters of racism (3.94%), living in a community lacking safe drinking water (3.94%), and gender based violence (3.94%).

Table 15 (Appendix A) shows the rank voting on specific adverse experiences and events by participants aged 25-34 only (n = 7). The most impactful childhood adversities as ranked by participants aged 25 to 34 were: lateral violence (7.27%), events related to the child welfare system (6.36%), food insecurity (5.76%), familial racism and prejudice (5.76%), living in a community with poor or lack of quality public infrastructure (5.76%), historical and current cultural and community disruption (5.45%), physical abuse (5.45%), ethnicity based bullying (5.15%), poverty (5.15%), gender based violence (5.15%), and racial discrimination (5.15%). Table 16 (Appendix A) shows the rank voting on specific adverse experiences and events by

participants aged 35, or older only (n = 3). The most impactful childhood adversities as ranked

by participants aged 35 or older were: domestic violence (18.18%), gender discrimination against women (16.36%), public encounters of racism (14.55%), associations to missing and murdered Indigenous women (12.73%), experience staying a women's shelter (10.91%), living in a community lacking safe drinking water (9.09%), events related to the child welfare system (7.27%), historical and current cultural and community disruption (5.45%), living in a community lacking quality or appropriate health services (3.64%), and poverty (1.82%).

Age when first started identifying as Indigenous

Table 17 (Appendix A) shows the rank voting on specific adverse experiences and events by participants who have identified as Indigenous their entire lives (n = 8). The most impactful childhood adversities as ranked by participants who have identified as Indigenous their whole lives were: historical and current cultural and community disruption (7.95%), public encounters of racism (5.23%), sexual harassment (5.23%), sexual assault (5.23%), familial racism and prejudice (5.23%), loss of a family member (4.77%), food insecurity (4.32%), gender based violence (4.32%), living in a community lacking safe drinking water (4.09%), suicides (4.09%), and poverty (4.09%).

Table 18 (Appendix A) shows the rank voting on specific adverse experiences and events by participants who did not identify as Indigenous their entire lives (n = 6). The most impactful childhood adversities as ranked by participants who began identifying as Indigenous later in life were: lateral violence (11.27%), events related to the child welfare system (9.09%), ethnicity based bullying (6.55%), racial discrimination (6.55%), interactions that devalued identity and lived experience (5.09%), a lack of parenting (4.73%), gender based violence (4.00%), alcohol abuse in the household (3.64%), historical and current cultural and community disruption

(3.64%), associations to missing and murdered Indigenous women (3.64%), physical abuse (3.64%), and the legacy of residential schools (3.64%).

Cultural Identity

Table 19 (Appendix A) shows the rank voting on specific adverse experiences and events by Métis participants only (n = 5). The most impactful childhood adversities as ranked by Métis participant were: events related to the child welfare system (16.36%), lateral violence (13.33%), familial racism and prejudice (7.88%), poverty, (6.67%), historical and current cultural and community disruption (6.06%), associations to missing and murdered Indigenous women (6.06%), devaluing identity and lived experience (6.06%), racial discrimination (5.45%), suicide (5.45%), sexual harassment (4.85%), and drug abuse at or in the home (4.85%).

Table 20 (Appendix A) shows the rank voting on specific adverse experiences and events by First Nations participants only (n = 9). The most impactful childhood adversities as ranked by First Nations participant were: historical and current cultural and community disruption (6.36%), gender based violence (5.45%), ethnicity based bullying (5.09%), public encounters of racism (4.55%), sexual assault (4.55%), sexual harassment (4.36%), living in a community lacking safe drinking water (4.36%), loss of a family member (4.36%), abuse(4.44%), racial discrimination (4.35%), devaluing identity and lived experience (3.45%), and living in a community with poor or lack of quality public infrastructure (3.45%).

6.3 Chapter Summary

Participants identified numerous domains of adverse childhood experiences perceived as impactful to Indigenous peoples living in Canada that current ACE surveys fail to adequately capture. Historical events such as residential schools, cultural genocide, and dislocation were

shared as having significant residual effects that adversely impact current generations. Living in a community with poor infrastructure, or public services, like having no, or unsafe water, a lack of appropriate health services, or inadequate housing, was shared as causing significant adversity through direct and indirect pathways. Gender-based adversities, such as domestic violence, sexual assault, and a connection to the tragedy of missing and murdered Indigenous women, girls, and two spirits, were described as widespread and devastating. Events of severe racial discrimination, whether public encounters of racism, structural racism, or experiences of lateral violence, were highlighted by participants as particularly burdensome and detrimental to children's well-being. Similar to previous studies of ACE, experiences of household dysfunction like exposure to serious crime, drug abuse in the home, or loss of a close family member, or gender-based adversities, like sexual assault, or domestic violence, were identified and confirmed as adverse and common by participants.

Study participants also identified many strategies, resources, and mechanisms through which they develop and strengthen their resiliency to overcome childhood adversities. Direct efforts to heal trauma through helping others in the community, accessing counselling, and embracing Indigenous identity were discussed as beneficial to resilience. Also, at the systems level, a greater understanding and awareness of traumas and burdens impacting Indigenous peoples and communities was identified as helping to cope with adversities as well. Formally establishing cultural continuity in the space's participants frequent through integrating ceremony, Indigenous based programming, traditional knowledge and knowledge keepers, language, music, and dance were recognized as major factors in strengthening resilience. Reaping the benefits of a strong social network and community with supportive leadership and healthy relationships, that fosters a sense of acceptance and belonging, was communicated as critical in the development of

healthy coping mechanisms. Lastly, individual efforts, such as a willingness to learn, developing confidence, having an optimistic outlook, and gaining skillsets, or knowledge, were brought up as more personal ways to establish and maintain overall resiliency and healthy coping mechanisms.

From participant ranked votes on the impact of specific adversities it was determined that the most impactful adversities were related to historical and current cultural and community disruption, events related to the child welfare system, ethnicity-based bullying, sexual harassment, lateral violence, gender-based violence, sexual assault, familial racism and prejudice, devaluing identity and lived experience, and racial discrimination. Some of these adversities align with domains found in standard ACE surveys (child welfare system events, sexual assault or harassment), while other do not (historical and current cultural and community disruption, lateral violence). Note that there may be differences between the labels of events or experiences between the quantitative and qualitative results. Some participants wrote down events during the NGT process that were not discussed in the audio of the focus group or interview, or they were described and discussed differently. Some of the events or experiences discussed in the focus group or interviews may not have been ranked by participant in the NGT process, again creating potential differences in the labelling between the two.

7. Discussion

The purpose of this study was first to investigate whether Indigenous peoples living in Canada would endorse domains of adverse childhood experiences not currently captured by the conventional ACE survey, and, second, to investigate coping mechanisms, or factors for resiliency in overcoming childhood adversities. A blended methodology that used focus groups and interviews incorporating aspects of nominal group technique (NGT) and First Nations' Sharing Circles was utilized for data collection. Thematic analysis was conducted to communicate and organize the qualitative results, and a quantitative ranking was used to communicate the relative impact of experiences. Although the initial focus of this pilot exploration was to identify domains of adverse childhood experiences and childhood factors, or mechanisms of healthy coping, the results also reflect adversities and coping mechanisms relevant to Indigenous people throughout the lifespan. The rest of this chapter first discusses the adversity results, and, second, the resiliency and coping mechanisms results, identified through the thematic analysis. Within the discussion of each theme are also relevant findings from the quantitative impact rankings and identification of any significant differences within the sample across demographic factors.

7.1 Discussion of Adversities

In answering the first research question, the study findings suggest that there are domains of adversity and adverse childhood experiences endorsed by Indigenous people that are not adequately captured by conventional ACE surveys, including: historical traumas, chronic underfunding of public services (specifically those that affect child welfare), different household and community dysfunction experiences, gender-based adversities, and racial discrimination.

Some of the generated domains of adverse experiences are present on conventional ACE surveys, but lack detail, or specific experiences deemed relevant to Indigenous children living in

Canada by participants. Many of these experiences are uniquely impactful to Indigenous peoples as a result of historical and current socioeconomic contexts that burden Indigenous people and communities in Canada. Repeatedly, the upstream factors that control socioeconomic contexts were connected to the prevalence and variety of adversities that Indigenous people experienced as major factors in the vulnerability of Indigenous children to significant adversities. As previously mentioned, many of the traumas identified create experiences that are not independent of each other, but instead intersect across age, gender, and other aspects of identity to create unique individual narratives that are more than the sum of their parts. It was quite clear that a participant's personal exposure was not a prerequisite to feeling the adverse impacts of many of the adversities generated, most clearly illustrated by the intergenerational burden of the residential school era and the communal stress of the missing and murdered Indigenous women crisis in Canada.

Theme 1: Historical Traumas

Historical traumas were highlighted as an overarching domain of adversities that continue to have an impact on Indigenous children today. Adversities within this domain include child and family welfare policies, cultural and community disruption, the cycle of poverty, and suicides. The intergenerational and cascading consequences of these events were the most frequently mentioned by participants, and the experiences within this domain constituted approximately 20% of all impact votes. The intergenerational health consequences of historical traumas are widespread and severe. They range from the development of poor health behaviours, such as addictions, to mental health issues, such as anxiety, depression, and suicidality, and chronic physical diseases such as cancer or cardiovascular diseases (Aguilar & Halseth, 2015).

Historical traumas and their far-reaching direct and indirect consequences on social contexts in which Indigenous children currently live were a central theme in the discussion of prevalent and impactful childhood adversities. The historical traumas that burden Indigenous individuals and communities are the result of a complex set of events, actions and policies that continue to have tangible consequences. Current generations of Indigenous children are potentially exposed to the compounding effects of past trauma and current adverse events, which are likely directly, or indirectly related to original historical trauma. Indeed, previous research on intergenerational traumas has framed the current social and health status of Indigenous people as downstream of the adverse events of the past, even though children today did not experience them directly (Aguilar & Halseth, 2015). For example, child and family separation events and actions in the past, such as residential schools and the 60's Scoop, are an important upstream factor in the prevalence and adverse impact of adversities identified by participants, such as cultural and community disruption, addictions, and a lack of parenting. An ancestor experiencing abuse at a residential school may have resulted in an addiction from attempting to cope with the trauma, leading them to perpetuate neglect and potentially have children taken into the child welfare system, creating a devastating cycle of trauma throughout the family.

The impact of the child welfare system as it is applied to Indigenous families and communities cannot be understated. Although Indigenous children were only 7% of the total child population across the country, Indigenous children were 48% of all the foster care children in Canada in 2016 (Turner, 2016). In fact, some estimates of absolute numbers show there are more Indigenous children in the child welfare system now than there ever were at the peak of the residential school and 60's Scoop eras (The Canadian Press, 2017). Some of these children are removed from their home for reasons unrelated to quality of parenting or safety in the household,

such as lack of a lack of safe drinking water in the community, or widespread poverty (Kassam, 2017). Children taken from their homes and families may be more likely to continue experiencing adversities shared by participants such as poverty, inadequate housing, racial discrimination, and loss of cultural identity.

The findings of this study are consistent with previous conceptualizations of historical adversities relevant to Indigenous children found in the literature, although more specific to the Indigenous population in Canada. Whitbeck and colleagues described and measured the domain of historical loss in their survey of ACE among American Indian children in the US. The domain of historical loss was included in their survey after consulting with Indigenous Elders and conceptualizing historical loss as a combination of: loss of language, loss of culture, erosion of traditional family and community ties and values, loss of land, and loss of respect (Whitbeck et al, 2009). The study findings are also consistent with the conceptualization of historical loss in a 2015 study which used the HLAS (Historical Loss Associated Symptoms scale) to assess exposure to historical loss related adversity among Native American adolescents as well (Brockie et al., 2015). Historical loss, as conceptualized by these two studies, confirms the impact given by participants to adversities related to child welfare and separation policies, such as the residential school system, the 60's Scoop, and the current child welfare system. Exposure to the child welfare system, in its past or current form, is a major pathway through which Indigenous individuals and entire communities have experienced other adversities identified by participants, including a loss of language, culture, and the erosion of traditional family structures and ties.

It is clear that the child welfare system in Indigenous communities can cause severe consequences and harm, and that regardless of personal exposure to any current adverse events

many Indigenous peoples are impacted by the adverse experiences inflicted on their families and communities in the past. Although cultural and community disruption was described as an outcome of the child welfare policies for Indigenous children in Canada, these disruptions occur outside of the child welfare system as well. Barriers to freely expressing and practicing Indigenous culture have a significant adverse effect because Indigenous children and adolescents can suffer from not being able to fully connect with, or embrace, their identity, which is a strong coping mechanism and source of resiliency discussed in the study results.

Participants shared that the relationship between historical traumas and current social contexts produces outcomes, such as the cycle of poverty, that afflict some Indigenous peoples and communities, and the high prevalence of suicide. Previous research has established that high levels of poverty in some Indigenous communities is the result of historical oppression and traumatic events like the residential school system (Aguilar & Halseth, 2015). Poverty has further been associated with addictions and family dysfunction, facilitating two other types of adversities identified in this study that are also known to be consequences of intergenerational trauma. Clearly, the harm and pain inflicted on Indigenous people who are exposed to suicide, or a suicidal event as children is severe. Poor health services, or lack of access to appropriate interventions, and a societal stigma to openly discussing suicidality, are major factors in the high prevalence of suicide in some Indigenous communities and its resulting impact on children's well-being. From previous research that reports a strong positive relationship between high suicide rates and historical loss and adversities (Wexler, 2009a; Strickland et al., 2006), potentially indicating the presence of epigenetic influences. It is clear that suicide can be a response to unresolved trauma, which can further exposure children in that community to greater trauma.

There were some noticeable differences among participant responses in the study sample. Male participants were more likely than female participants to rank adverse experiences related to historical traumas as impactful to Indigenous children (31.4% vs. 24.6%). As a percentage of total ranked scores for all categories, participants aged 18-24 ranked adversities in the domain of historical traumas more impactful than participants aged 25-34 and participants 35 and over (27.6% vs. 22.7% vs. 14.5%). The youngest age group ranking historical traumas the highest was surprising given the assumption that older participants would be in closer proximity to individuals directly affected by some of the historical traumatic events, for example, residential schools, or the 60's Scoop. However, greater attention and recognition of historical traumas over the past decades may explain why younger participants identified and ranked historical traumas so impactful. Participants aged 35 and over ranked all adverse experiences and events with the child welfare system more impactful than those aged 18-24 and 25-34 (7.3% vs. 5.2% vs. 6.4%), while participants aged 18-24 weighted the impact of suicides significantly higher than the two older age groups (7.3% vs. 0.9% vs. 0%). The younger age group may rank suicides of greater impact due to better identification of suicides, or suicidality presently than in the past and similarly, a reduced stigmatization of suicide presently when compared to the past. Participants who identified as Indigenous since they were born were more likely than those who did not to rank adversities related to historical traumas highly impactful (29.3% / 19.3%). Again, this could be the result of greater proximity or exposure to individuals, or communities that directly experienced the historical traumatic events.

The experiences grouped within the historical trauma domain are not all relevant to current Indigenous children, mainly because certain events, such as being sent to a residential school, no longer occur. However, the direct and indirect consequences of these experiences can

harm children today through many routes of intergenerational transmission. The other experiences identified in this domain, such as cultural and community disruption, poverty, and suicide, are not limited to childhood and can have significant impact on an individual through adulthood.

Theme 2: Lack of Infrastructure

Many participants described the lack of quality infrastructure, or investment in infrastructure in some communities and its numerous impacts of children. Specifically, adversities in this domain were related to water access and quality, accessible and appropriate health services, and inadequate housing. Chronic underfunding of Indigenous communities, as well as the consequences of intergenerational trauma and cycles of community poverty, are significant factors in the poor quality or overall lack of public infrastructure experienced by many Indigenous children (Standing Senate Committee on Aboriginal Peoples, 2015). The past and present social and economic exclusion of many Indigenous peoples has led to an infrastructure crisis in a lot of Indigenous communities. The availability and quality of water have been at the forefront of issues affecting Indigenous communities (Senate Standing Committee on Aboriginal Peoples, 2015). Since late 2015 there have been 40 long-term boil water advisories lifted, but 26 new long-term boil water advisories have been added as well (David Suzuki Foundation, 2018). Numerous communities also struggle with inadequate and overcrowded housing, a situation that can facilitate numerous other childhood adversities, such as food insecurity, or a greater likelihood to be exposed to a relative's severe addiction.

Poor health services, or access to health services, has been previously recognized as an area of concern in Canada, and led to the adoption of Jordan's Principle. Jordan's Principle states that Indigenous children should receive the same services, and quality of services, as non-

Indigenous children and that jurisdictional disputes over the financing are to be determined afterwards (Blackstock, 2012). The creation of Jordan's Principle was in response to the disagreement over responsibility for covering the costs of healthcare services between levels of government, which left children who were unable to easily travel to where services are offered with unmet healthcare needs. The undecided nature of accessing healthcare services for Indigenous children may be a factor in the number of Indigenous children being moved, temporarily or permanently, outside of their community, in an effort to help them receive necessary care. Additionally, the side effects of unmet healthcare needs, mental health needs in particular by participants, can be extremely impactful and compound the consequences of other adversities.

Many Indigenous child advocacy groups have highlighted the link between historical traumas and the underfunding of health and social services in Indigenous communities with the current context in which Indigenous children suffer from reduced physical and mental health status, and are taken into the child welfare system at astounding rates (Edwards, 2018; Blackstock, 2012). The underfunding of Indigenous communities has severe social and political implications, evidenced by the 2016 ruling of the Canadian Human Rights Tribunal that the federal government was discriminating against Indigenous children through underfunded health and child welfare programs on reserves that create the conditions many families and children find themselves in, the same conditions that produce greater prevalence of adversity (Kassam, 2017). Quite simply, the very reasons many children are taken from their families through government policies and actions (e.g., poverty, inadequate housing, poor health and social service access), result from poor government investment and response to community crises.

The impacts of these events go beyond physical and sanitary consequences to reach mental and emotional impacts as well. The health consequence of poor public infrastructure include greater risk of infectious diseases, fatal or severe accidents, anxiety, and depression (Public Health Action Support Team, 2017). In addition to the health effects, poor public services and infrastructure can be a factor in some of the other adversities discussed by participants in this study, such as exposure to the child welfare system and neglect, which produce negative health outcomes as well.

There were some noticeable differences among participant responses in the study sample. Overall, male participants were more likely than female participants to rank adversities related to a lack of public infrastructure as impactful (17.3% vs. 10.7%). Adversities related to a lack of public services were ranked most impactful by participants aged 25-34, followed by participants aged 35 and over, and participants aged 18-24 (20.0% vs. 12.7% vs. 10.6%). Participants who identified as Indigenous since birth and those who began identifying as Indigenous later in life ranked adversities related to poor quality, or lack of infrastructure similarly in terms of their overall impact as a domain (13.6% vs. 11.3%).

The experiences grouped within the lack of infrastructure domain are all relevant and can occur in childhood, with the effects perhaps being more harmful since children have little ability to change their socioeconomic, or living situations. However, these experiences are not limited to childhood and can have significant impact on an individual through adulthood.

Theme 3: Household and Community Disfunction

Adversities shared by participants grouped into this domain include sudden loss of a family member, abuse, food insecurity, exposure to someone with a severe addiction, a lack of parenting, and exposure to serious crime. These adverse experiences align closely with the

experiences found in conventional ACE surveys. More specifically: abuse in this study corresponds closely to abuse categories in conventional ACE surveys, exposure to severe addictions corresponds closely to substance abuse in the household, lack of parenting corresponds closely to neglect, and exposure to serious crime corresponds closely with criminal behaviour in the household (Feletti et al., 1998). The associations between poor health and social outcomes and household dysfunction adversities are well established. Individuals with exposure to these events are more likely to develop addictions themselves, attempt suicide, develop common mental or physical chronic diseases such as cancer, heart disease, and liver disease, and adopt common poor health behaviours, such as smoking, alcoholism, and drug abuse (Schilling et al., 2007; Felitti et al., 1998).

The high prevalence of addictions in some Indigenous communities, especially to alcohol, or illicit substances, is potentially the result of the historical traumas identified and discussed earlier. Severe addictions may be a significant pathway for other adversities to develop, such as neglect, abuse, domestic violence, serious crime, poverty, and suicide. Although addiction is often framed as an individual problem, it can have many direct and indirect impacts on a household, or entire community through financial, emotional, social, and physical harms (Daley, 2013).

Although loss of a family member is stressful and potentially adverse at any point in life, losing a family member suddenly during childhood can have an extremely negative impact on mental and emotional well-being. The family member may have died as a result of some of the adversities identified by participants, and their death is compounding the systemic issues of historical traumas and addictions by turning the impact deeply personal. Experiencing a lack of parenting is similar to experiences of emotional neglect that are part of conventional ACE

surveys and screening. There are other adversities identified in this study that can contribute to neglectful parenting, such as addictions, but the consequences of historically removing Indigenous children from their families have created a gap in the good, and traditional sharing of parenting knowledge. Generations of Indigenous families did not have the opportunity to traditionally raise their children in traditional ways taken as a result of child and family separation policies, and therefore may have little experience with, or exposure to, safe and traditional parenting models. Similarly, children exposed to a lack of proper parenting often grow up in a household that has a history of trauma, poverty, or addictions, highlighting the overlapping upstream factors of many adversities shared by participants.

There were some noticeable differences among participant responses in the study sample. Male participants were more likely than female participants to rank household and community dysfunction adversities as high impact (18.6% vs. 12.9%). Since no participants over 35 placed any household, or community dysfunction adversities in their impact rankings, the group percentages and comparisons were only done for participants aged 18-24 and those aged 25-34. Overall, participants in the 25-34 age group ranked the impact of household and community dysfunction related adverse experiences higher than those aged 18-24 (19.4% / 12.4%). Overall, adversities related to household, or community dysfunction were weighted as more impactful by participants who identified as Indigenous later in life, compared to those who have identified since birth (13% / 17.5%). Adversities related to household and community dysfunction are thought to be the most impactful in childhood, hence their inclusion in conventional ACE surveys. However, exposure to some of these events, such as food insecurity, addictions, or the sudden loss of a family member, are clearly impactful in adulthood as well.

Theme 4: Gender-based Adversities

The prevalence and impact of gender-based adverse events among Indigenous women in Canada is well known (Brennan, 2011). The findings of this domain repeatedly detail the widespread victimization of Indigenous women, through experiences of sexual assault, sexual harassment, events related to domestic violence, and experiences of gender discrimination. The missing and murdered Indigenous women crisis was highlighted as a distinct set of events that weigh heavily on Indigenous people as well. Gender-based adversities can result in mental health issues such as depression, anxiety, PTSD, or suicidality, as well as physical injuries that at their most severe can cause death (Alsaker et al., 2006). Women who have been the victim of gender-based adversities, especially sexual assault and harassment, often report a significantly lower sense of quality of life and well-being than women who have not (Alsaker et al., 2006).

Many of the subthemes within the domain of gender-based adversities are included in standard ACE surveys, more specifically: sexual assault corresponds closely to sexual abuse, and domestic violence corresponds closely with mother being treated violently (Felitti et al., 1998). However, the missing and murdered Indigenous women (MMIW) crisis has had unique impacts on Indigenous women living in Canada. The impact of even minor events of sexual harassment can be amplified and potentially cause extreme stress that lasts much longer then the harassment, or presence of the perpetrator, since there is a well-known systemic lack of security and targeting of Indigenous women in Canada (Feinstein & Pearce, 2015). Although individuals in this study were not direct victims of the crisis, knowing these are prevalent experiences for Indigenous women was shared as traumatic, and the missing and murdered Indigenous women crisis was indirectly felt to harm health and well-being. Similar to other adversities in this domain, Indigenous women suffer from domestic violence at rates almost three times greater than non-

Indigenous women (Brennan, 2011). Due to socioeconomic conditions, Indigenous women are extremely vulnerable to financial abuse in domestic situations, since Indigenous women are more likely to lack the financial independence to leave contexts that are potentially perpetuating the adversity that they are experiencing.

There were some noticeable differences among participant responses in the study sample. Female participants were much more likely than male participants to rank gender-based adversities as incredibly impactful to Indigenous women (23.4% vs. 13.6%). The most pronounced differences between age groups was seen when ranking the impact of gender-based adversities. Overall, participants aged 35 years or older ranked gender-based adversities extremely impactful, more than those aged 18-24 and those aged 25-34 (58.2% vs. 24.8% vs. 9.7%). The notable differences among the age groups may be due to the relatively few participants aged 35 or older in comparison to the other age groups, potentially skewing the relative impact rankings. Participants who identified as Indigenous since birth ranked the impact of gender-based adversities much stronger than those who began identifying as Indigenous later in life (23.6% vs. 12%). Gender-based adversities are quite prevalent and impactful among adult Indigenous women (Feinstein & Pearce, 2015). Many participants referenced specific events of stalking and harassment that occurred in more adult contexts, such as being at work or postsecondary education. The prevalence of these events, most notably the societal and historical connections to the missing and murdered Indigenous women crisis, may not be fully understood, and therefore not as impactful, in childhood.

Theme 5: Racial Discrimination

Racial discrimination was sadly common and was believed to present a large burden to Indigenous children's health and well-being. Numerous kinds of racial discrimination were

described, including: ethnicity-based bullying, public encounters of racism, familial racism and prejudice (including lateral violence), and the devaluing of Indigenous identities and experiences. The findings of this study align with those from previous studies investigating childhood adversity, in that surveying ACE among Indigenous populations should incorporate events of racial discrimination (Brockie et al., 2015; Kenney & Singh, 2016). However, the measures in previous studies did not differentiate between different types, or experiences of discrimination to the degree identified by participants in this study. The findings of this study are also in agreement with previous literature focused on the lives of children of residential school survivors, which has found that individuals who had a parent that attended a residential school were more likely to report perceived racial discrimination (Bombay et al., 2014a).

The health consequences of exposure to severe racial discrimination can include developing poor mental and emotional health outcomes, such as depression, anxiety, and suicidality (McQuaid et al., 2015; Brockie et al., 2015). Indigenous people who have experienced events of severe racial discrimination are also more likely to develop poorer health behaviours, such as alcohol, or drug addictions, than those who did not experience severe discrimination (Brockie et al., 2015).

Being severely bullied, or verbally abused is a harmful experience in childhood and, due to the historical context of discrimination against Indigenous people in Canada, being bullied on ethnic grounds may be particularly harmful for Indigenous children. Some children may, due to ethnicity-based bullying, disengage from the culture and social networks identified to be major factors in the development of healthy coping mechanisms and greater resiliency. Public encounters of racism, such as with healthcare providers, or police, may produce the same effects in children, where an internalization of the discrimination leads to not only a heavy stress

burden, but also a distancing from the cultural and social supports that would act as a moderator against the harm of the negative interactions in public, or with public institutions.

Lateral violence can be partially explained as a consequence of the legacy of government actions against Indigenous communities that is inextricably linked to actions of cultural oppression. Lateral violence is the bullying, devaluing, shaming, distrust, and blaming of other ingroup members, that perpetuates the type of abuse carried out the dominant society upon the marginalized group (NWAC, 2011). Lateral violence can cause community disruption, and is shown through bullying, distrust, and shaming of ingroup members (Bombay et al., 2014b). Experiences discussed by participants, such as continually having to defend and explain your identity to your family, are related to the concept of lateral violence as it disrupts community cohesion and acceptance. One potential explanation for why these adverse experiences are so harmful is because the moderating effect of a supportive and caring social network has been compromised since the discrimination is being perpetuated by the very people that would normally be relied on. At the population level, discrimination in the form of underfunded services, such as education, may influence the health and well-being of Indigenous children as a group.

There were some noticeable differences among participant responses in the study sample. Female participants ranked the impact of racial discrimination as more severe than male participants (28.3% vs. 9.1%). The domain of racial discrimination was given similar impact rankings by participants aged 18-24 and 25-34 (24.6% vs. 28.2%), while participants aged 35, or older gave less total impact ranking votes to the impact of racial discrimination (14.6%). Again, the notable differences among the age groups may be due to the relatively few participants aged 35 or older in comparison to the other age groups, potentially skewing the relative impact

rankings. Participants who began to identify as Indigenous later in life weighted the impact of racial discrimination much higher than those who identified as Indigenous their whole lives (33.5% vs. 20.5%). Participants who had not identified as Indigenous since birth ranked the impact of lateral violence highest (11.3%), while those who identified as Indigenous since birth ranked public encounters of racism (5.2%) highest, suggesting that those who identified since birth experience more out-group racial discrimination and those who did not identify since birth experience more in-group racial discrimination.

Although all the adverse events discussed in relation to racial discrimination can occur in childhood and adulthood, the nuances implications of lateral violence and ethnicity-based bullying may be more clearly understood as one gets older, and can therefore influence the impact felt by the individual.

7.2 Discussion of Coping Mechanisms and Resiliency Factors

Additionally, in answering the second research question, the study findings suggest there are numerous sources of resiliency and coping factors that are beneficial to the health and well-being of Indigenous people who have experienced childhood trauma, including: actions to heal trauma, cultural connections, strong and supportive social networks, and the successful development of numerous skill sets. The domains of coping mechanisms identified here align with previous research on Indigenous resiliency that highlights spirituality, social belonging and positioning, mastery of skills, generosity, and revitalizing culture as factors supporting greater resiliency among Indigenous people (Kirmayer et al., 2011; Brendtro et al., 2002). Many of the themes identified in the resiliency discussions are the counterpoint to themes that evolved from the adversity discussions. For example, a lack of cultural connections in childhood was highlighted as adverse, and accessing, or enabling more cultural connections in adolescence was described as

a foundational coping mechanism. Given that the adversity experienced resulted from the lack of a service it is not surprising that the adversity would be reduced by greater access to said service. Lastly, it seems that an understanding of current traumas and exposures to adverse events and their location within historical and social narratives for Indigenous people in Canada may be a major factor that fosters and incorporates a sense of great resiliency into personal and communal identities.

Theme 1: Addressing Trauma

Direct efforts to healing trauma, whether historical, or current, were identified as offering an important and foundational set of coping skills and mechanisms for overcoming significant adversity and stress. This domain revealed efforts such as, healing trauma by helping others, or paying it forward, accessing clinical counselling, embracing identity as an Indigenous person, and fostering a greater awareness and understanding of the past and present issues burdening Indigenous peoples and communities as pathways to healing trauma.

Healing through helping others was a part of many participant's narratives when discussing how they, or others in their community, have overcome trauma. The significance of these efforts cannot be understated as healing through helping not only benefits both parties directly involved, but also the broader community. Paying it forward strengthens relationships and social networks, highlighting the interconnected nature of many coping mechanisms and factors in producing greater resiliency. The benefits of greater societal knowledge and awareness of Indigenous histories and current issues were similarly framed, in that greater awareness and understanding was thought to foster greater reconciliation, which, in turn, could strengthen relationships and social networks across Indigenous and non-Indigenous people for the betterment of all. Likewise, a poor societal awareness, or understanding of Indigenous issues

could compound the harm of previous trauma, by furthering the narrative that Indigenous issues and oppression are devalued. Turning personal adversities into knowledge that could help others may also improve a sense of purpose, which previous research has associated with reduced negative consequences among those with exposure to adversity (Damon et al., 2003).

Clearly, counselling is a legitimate and justified factor, or mechanism in overcoming trauma and developing healthy coping mechanisms and greater resiliency. However, for the purpose of this study, it is important to note that the focus is on accessing culturally appropriate counselling that integrates cultural components and is done from an Indigenous worldview, which many participants discussed as underfunded and hard to access. Culturally appropriate counselling should take a holistic approach, incorporating historical and community factors, and may include ceremonies, prayers, traditional medicines and stories, and healing circles. Low accessibility for Indigenous-based counselling feeds back to the adverse experience of significant unmet healthcare needs identified in the first research question results, and is a barrier to any of the resiliency factors discussed as part of the greater cultural connections domain of factors. Embracing personal cultural identity enables self-acceptance and confidence in resiliency and healthy coping habits. Cultural identity plays a significant role in the resiliency of Indigenous people that, especially when dealing with racial discrimination and prejudice, helps to reduce the negative health consequences of the adverse exposure (Wexler, 2009b). Previous research has illustrated that a strong cultural identity can boost feelings of self-worth and purpose, connecting personal adverse experiences to the larger historical context of oppression against Indigenous people, and can be a protective factor against suicide (Wexler, 2009b). It may be the case that embracing a cultural identity and reflecting on the personal relevance of cultural beliefs, values,

traditions, and practices is the first step in building the cultural connections identified as a source of strength and resiliency in the next theme.

Theme 2: Cultural Connection

Every participant revealed actions and efforts linked to practicing and engaging with culture, or traditional knowledge as a means of strengthening resiliency, which were grouped into the domain of cultural connections. Cultural connections as identified in this study, included opportunities to integrate culture and ceremony into everyday life, having accessible Indigenous-based programming offered by Indigenous service providers, engaging with traditional knowledge and Elders, as well as learning and practicing Indigenous language, music, and dance. As mentioned previously, cultural connections may have heightened importance and impact among Indigenous people as a result of the oppression and disruption of Indigenous culture.

Cultural connections are an incredibly valuable resource in developing healthy coping mechanisms (CMHA Ontario, 2019). Strong cultural connections can facilitate the development of many other resiliency factors identified in this study, most notably feeling part of a caring community, building meaningful relationships, confidence, and the mastery of particular skills. Previous studies have continually reported a strong, positive relationship between engagement with culture and greater health, well-being, and resilience (Wexler, 2009a), confirming the importance of the actions and events shared by participants that are included in this domain. Therefore, the development of healthy coping skills and resiliency may be significantly improved if cultural connections can be integrated, supported, and encouraged in the spaces that Indigenous people frequent, such as at work and at school.

Greater connections to Elders and traditional teachings have the potential to improve healthy coping mechanisms and the consequences of adversity of trauma enormously, since

engagement with Elders and their knowledge can influence numerous aspects of life. The role of an Elder is quite versatile, but they often serve as a facilitator of traditional knowledge, teachings, and stories to guide people through healthy self-expression, personal growth, goal setting, and skill building (Beaulieu, 2011). Through their teachings, knowledge, and skills, a stronger sense of cultural connection can benefit other coping mechanisms, such as embracing personal identity and self-value, navigating social networks for meaningful relationship building, and foster the development of beneficial personal attributes and skills. Greater connections to teachings also facilitates learning and practicing Indigenous languages, music, and dance. These activities seemed to root participants and produce a sense of grounding and belonging within their community, and are well aligned with the resiliency factors discussed as part of the social network theme, as they can facilitate greater social connection. Cultural connections may provide a framework for Indigenous individuals to locate and place themselves within historical and current systems, and provide a sense of connection and purpose in their efforts to be resilient and cope with adversity. Previous research found that individual and collective coping is improved by efforts to engage with and support language especially, fostering collectiveness and a renewed connection to Indigenous group identities, and is linked to reduced rates of suicide (Kirmayer et al., 2011; Chandler & Lalonde, 1998). Overall, a focused effort to support greater engagement with culture in the spaces and institutions often occupied by Indigenous children was thought to be the way to help improve health outcomes when coping with exposure to significant adversities throughout life.

Theme 3: Social Network

A robust and supportive social network was described by participants as vital to the development and maintenance of healthy coping mechanisms and overall resiliency. More

specifically, the aspects of a strong social network that were revealed included being part of a caring community, having supportive individual and institutional leadership, forging and continuing relationships, and having a sense of belonging and acceptance. In general, different types of social support, or networks were identified by participants as beneficial to coping with adverse events, and were confirmed in the literature to be associated with personal healing, optimism, and less severe responses to social stressors (Aycock, 2012; Demaray & Malecki; 2003). The significance of a supportive and caring community can also be especially relevant to Indigenous students, and, in particular, Indigenous post-secondary students, who may potentially be very far from their usual social network and community. It is in this context that the support from leadership, or those in roles of authority may take on heightened meaning, as children in new and unknown spaces may be less likely to feel comfortable forming new relationships, or expressing themselves freely.

Low levels of social support have been associated with poor health outcomes, especially mental health, as well as social, economic, and academic outcomes (Demaray & Malecki, 2003). A shared platform of experience and perspective amongst a social network can help to reassure and support individual experiences, or at least provide a buffer to the development of severe health, or social consequences resulting from adverse exposures (Demaray & Malecki, 2003). Strong social networks were also identified by participants as providing a basis for collective understanding and interpretations, which are especially significant for Indigenous people dealing with historical trauma, or traumas related to cultural oppression. The connection between individual and communal adversities can foster an increased sense of cultural and social engagement that reduces social isolation and strengthens the social network in its ability to maintain and forge new relationships. In addition, the significance of a supportive and caring

community may be affected by gender, as previous research has shown socialization practices are influenced by gender differences starting in childhood. Therefore, exploring gender differences in the valuing of different aspects of social support networks may have potential for more specific and targeted actions to improve social supports for Indigenous children of any gender identity (Aycock, 2012).

Theme 4: Personal Attributes

There were many individual attributes and characteristics revealed as beneficial to the development of resilience and healthy coping skills that were grouped into this domain. Personal attributes included: a willingness and desire to engage with people and systems around them, being mindful, or practicing mindfulness, a sense of confidence, optimism, laughter, and learning and mastering skills related to academics, communication, and leadership. Many of the identified personal attributes, or traits are mentioned in previous literature as not only beneficial to resiliency after a traumatic event, but also as protective factors in a pre-traumatic sense (Gil & Weinberg, 2015). For example, dispositional optimism and confidence in oneself when trying to overcome a problem is associated with better coping reactions, higher well-being, and reduced PTSD symptoms in the face of significant trauma (Gil & Weinberg, 2015). Similarly, the inclusion of laughing and humour in this domain by participants aligns with previous research, which states individuals who can use humour to cope with stress and trauma are able to distance themselves from harm developing a greater sense of control and less helplessness (Ron & Rovner, 2014). Overall, the literature confirms the validity to the characteristics and their perceived value to participants, as a whole, in overcoming adversity. These characteristics and the way they are utilized by individuals may help explain the variation in individual responses to

similar adverse experiences, historical or current, personal or collective, and the resulting differences in impact on personal health and well-being.

Of particular note is the value given to developing strong skillsets, especially communication, since being able to engage through an Indigenous language with members of an individual's Indigenous community can have numerous beneficial and cascading effects. Many participants mentioned the value of learning an Indigenous language and using it to connect with other people, ideas, and systems. Good communication skills can enable personal growth and may help to set the foundation for improved confidence and willingness to engage with the people and surrounding systems, again highlighting the interconnected nature of the more personal levels factors in developing greater resiliency and healthy coping mechanisms. All the items discussed in this domain of coping mechanisms can help foster what the literature refers to as a sense of mastery, which is the confidence in your own capabilities and skillsets to overcome obstacles and navigate stressful situations, such as traumatic events, to meet one's own needs (Ron & Rovner, 2014). The importance of mastering skillsets suggests that programming and services related to developing healthy coping mechanisms for Indigenous people with exposure to adversity should focus on building the capacity of broad personal skills and attributes, as this would also aid in the development of other beneficial resiliency factors.

7.3 Reflective Journal

The model I applied to the reflective journal kept throughout the project was the 'what, so what, now what?' model (Writeonline, 2015). The 'what' stage is the description of the event, the 'so what' stage is the analysis of the event, and the 'now what' stage of the reflection is the plan to apply the new insight or knowledge (Driscoll, 2007). I consistently made journal entries before and after any data collection, transcription of interview or focus groups data, and each

meeting with ISAC. The reflective journal for this project is a collection of reflections on the thought processes and decisions involved in collecting and analyzing data, and thoughts on my personal perspective and self-location within the context of the research, and with Indigenous participants or communities.

The progression of my comfortability with the project, specifically skills related to data collection, was one of the main themes found in the reflective journal. Initially the practice of keeping a journal and writing meaningful entries was foreign to me and felt forced. My first entry was before the focus group and I was unsure of what even pay attention to keep track of or to reflect on before getting started:

"Very quiet. Set up our whiteboard and all the information sheets and forms beforehand and then went with the facilitators to meet the students, they should come down here soon. First time involved in setting up and organizing something like this. No idea if it is going to go well or be a flop. Leading it, there is no one to look at as backup, making me nervous." (September 21st, 2017).

Even afterwards, I was still unsure of what to be reflecting on or what aspect of the experience I should focus on describing:

"Not sure how I feel about how that progressed, thinking since I am not used to leading something that that was why I felt surprised by how much people wait on you and your direction. For next time don't feel like you're putting anybody out at this point, they agreed to participate, hesitancy in your approach create hesitancy in the participants." (September 21st, 2017).

About half-way through the interviews (after the 5th interview) I was feeling much more comfortable and confident with my ability to guide the interview without being restrictive or controlling the narrative myself. I was preparing and approaching how I guided the interviews differently:

"Last interview [Interview 5] it worked out well to take what participant said and indirectly relate it back to the research questions. Felt like previous was just blurting out

questions once they had finished their response to the previous one. For further interviews: focus on guiding/nudging/navigating conversation in a way that answers the questions, no more listing off questions. Data was much better, more detailed this way." (January 20th, 2018).

As I continued to do the interviews with this approach both me and the participants were more satisfied with how the discussions unfolded with applying the new approach:

"1/2 interviews with graduate students, the other is tomorrow. Have a good personal relationship with both, both knowledgeable about the project and the interview topics, more the participant from yesterday. She was pretty up to date on the way the project has changed a bit [it had been 7-8 months since I started data collection]. After the interview she was complimenting how free-flowing and casual the interview felt. Had some experience doing interviews before, felt clinical I think. Part of it maybe the personal friendship, hopefully part of it is letting participants guide it and just making sure we hit our talking points and questions. Haven't transcribed it yet but I think the stuff she talked about was really good, both happy with how it went." (March 15th, 2018).

In recognizing that the participant really needs to guide the interview on their terms, just with soft nudges here and there to touch on the research questions, I adjusted how I expected the interviews to go and the questions to be answered and it greatly improved the comfortability of the interviews and the quality of the data. Interviews became a discussion or narrative that was based in the participants thoughts, perceptions, and experiences instead of a formal question and answer period.

Similarly, there was a progression in the approach to analyzing and organizing the data reflected in the journal. When I first approached analyzing the data I was having difficulty relating codes to each other. For example, when a participant described how their parents were somewhat negligent that was coded as negligent parenting, and similar experiences were labelled with that code. But, each group of codes was isolated and independent and, as noted in the journal, how they were going to come together into broader themes instead of the isolated codes was worrisome:

"First round of coding, taking the same words participants use to describe a situation as the label. There are so many different experiences and so independent of each other I don't know how I'm going to bring these together. Water issues and housing can be grouped together I think but at the moment it feels like 70 codes that have nothing to do with others." (March 25th, 2018).

After I started to meet with ISAC to get their perspective on the data and the coding, things changed. ISAC members were able to provide a lot of background knowledge on how experiences were connected and related to each other, and I started to understand how we were going to present the themes to represent the narratives given by participants during the interviews. Similar to when I started to understand participants were sharing more of a narrative about adversities instead of individual and isolated adverse events in the interviews, having ISAC integrate that overarching narrative into how we were organizing the data made it much clearer:

"Meetings with ISAC are making the organization so much easier. I feel bad because I don't feel like I am doing the work, not sure if this is how it should go or not, I'm barely using NVivo, only after the fact to organize. We're going to start with past traumas and this makes sense to me now. They are not horizontal independent themes but most of the codes fall into groups that stem from past traumas. Yesterday we grouped all the child separation quotes and then below that grouped all the addiction quotes. Today we took it a step further and grouped some of the violence against women quotes." (June 12th, 2018).

What I learned through the experience was to let the participants, who are the ones with the experience and perspectives we want to hear about, guide the analysis as much as they guided the interviews. I provided the time and effort to organize the coding and theme generating sessions and make sure participants had everything necessary to provide their knowledge to bring it together.

The second main theme in the reflective journal was a deeper understanding of participants experiences and relationships with research projects, particularly projects that asked

about personal health and experiences of adversity. As I began to understand this relationship better it changed how I approached the research questions, interviews, and participants. For example, personal exposure was not necessarily perceived by participants as a requirement for having a relationship with, or endorsing the impact of a particular experience or set of events. Participants were very quick to provide valid and important thoughts and perspectives on events that happened to someone in their community, or that happened decades ago.

"So far participants don't really list personal experiences that were adverse to them. The last interviews [Interviews 3 & 4] were really noticeable, mostly telling me about experiences they know of or experiences that are common in their community when they grew up, or in their social group now. Not sure if these experiences will count or how to include them. Maybe identify difference between personal and non-personal experiences." (January 15th, 2018).

When thinking about how to organize the differences between personal and community level adversities was when I reconceptualized what I found myself investigating in this study: not merely reporting which events participants had personally experienced and whether they were prevalent in Indigenous communities but engaging with a communal and historical narrative of adversity that, regardless of direct exposure, has shaped Indigenous people and communities.

Once I started to conceptualize the topic it became much easier to engage with participants and the experiences or events they shared, and perspective became that it was more of a discussion than an interview, and more about a continuous narrative than isolated events. I think I finally began to understand and apply that before the 6th interview and changed my approach, my thoughts beforehand were centred on creating a space where the participant could talk freely and explore that narrative:

"Remember to let the story come out, may circle around a point indirectly before getting to actual discussing of type of adversity or adverse event. Acknowledge systemic, historical aspect of adversity to Indigenous people. Not isolated events, cant be told in

isolated manner. Really think before responding, encourage more story but guide to answer question." (February 4th, 2018).

Gaining a deeper understanding of how participants conceptualized events and how they wanted to tell those stories was potentially the most critical change for me throughout the project. Before that change in perspective I would say I was leaving my judgements at the door, but not my preconceived expectations. I expected the experiences to be shared in a straight manner and although I was open to discussing any of the experiences shared I was not receptive to how they were being shared. After I began to understand and adjust to how participants were sharing their perspectives and experiences it made the interviews easier, and further along it made the necessary transition in the analysis phase easier too. A thought from the journal entry after the last interview illustrated how essential the change in approach and understanding was:

"I think we'd have very different data and participants may not want to still be involved if I continued thinking of experiences in the way I was. I think expressing to the participant of this interview that any way they want to navigate the narrative of adversity they have seen throughout their lives is fine and that don't have to stop and start with specific questions or anything like that has just made everything better. They're happy, I'm happy, and the data is really thorough. Seems that it just helped establish a greater trust that I'm not completely in the dark about what Indigenous communities have experienced. I still don't know anything but maybe it's been a space for a group of people to talk about it, and I've learned from that."

7.4 Limitations

The main limitation of the study is the potential lack of generalizability to other Indigenous peoples, or communities. Since the research was based in qualitative methods and on the perceptions and experiences of a specific group of participants, the findings may not be as relevant, or impactful to other Indigenous communities, or the Indigenous population broadly. All participants in this study had post-secondary education experience and were living in an urban area, reducing the potential comparability to Indigenous people with no post-secondary

experience, or living in rural areas. While 100% of the study sample had post-secondary experience just 48.4% of Indigenous people in Canada had post-secondary experience in 2011, compared to 64.7% of non-Indigenous people in Canada (Statistics Canada, 2018). The main efforts to counterbalance this included developing rich and thorough data, and reflective journaling, so that similarities to other communities, or populations can be assessed and their relevance to other groups determined by those looking to make comparisons (Vicary et al., 2017; Ortlipp, 2008). The highly subjective nature of utilizing a qualitative approach that explores individual experiences, perceptions, and attitudes is also limiting, as aggregating these data sources does not necessarily improve their objectivity. Although the subjectivity restricts the generalizability of the findings, the exploratory nature of this study is meant as a starting point to begin identifying themes and concepts that may eventually lead to a more objective and specific assessment of adversities and coping mechanisms. Also, participants often blurred the line between personal experiences and the experiences of, and in, their communities. There is potential for recall bias in participants responses as they reflected on relevant events or experiences, regardless of whether they were describing personal or community experiences.

Another potential limitation related to the findings of this study is the small sample size (n=16). There is the potential for additional themes of adversity and resiliency relevant to Indigenous children that were not discussed by the study participants. However, extensive evaluation and interpretation of the data by many researchers and participants determined there was enough evidence to conclude that the study results had reached a high level of data saturation despite the small sample size. Throughout the iterative process of identifying associations and gaps between the data and the themes being generated there was a constant focus on refining and organizing themes to ensure they encompass all the developed codes. The

saturation of all established themes with any relevant subthemes or experienced, and lack of evidence to pursue generation of new themes, represented the end of data collection for the research (Bowen, 2008). Also, a small number of participants did not complete the rankings and for some of the age groups this means the impact of experiences could potentially be under- or over-stated. Similarly, due to the intimate and personal nature of the experiences shared and discussed by participant, sensitivity bias may have inhibited participants from sharing more experiences, or experiences in greater detail, that underappreciated their potential impact (Sanjari et al., 2014)

Inherent in studies where there are interpretations of qualitative data is researcher bias, where the subjective and ambiguous nature of some terms, concepts, or experiences leaves room for misunderstandings. Although researcher bias was counterbalanced by the continuous involvement of ISAC to inform and confirm interpretations, it can never be completely eliminated (Atieno, 2009). Due to the exploratory and open-ended nature of the research project and questions there is limited ability to objectively confirm the findings amongst larger bodies of literature as well. More specifically, there is the potential that related bodies of work, or literature are found more in the grey literature or are communicated through oral storytelling than being written in academic literature, and that there may be related, or relevant projects and findings that were not captured by the review or scope of this project.

8. Conclusions

In conclusion, there are many types of adversity that are prevalent and impactful to Indigenous children's health and well-being that are not currently captured by standard ACE survey measurements. Measures assessing childhood adversities experienced by Indigenous people should include consideration of historical and intergenerational trauma, chronic underfunding of public infrastructure and services that influence child welfare, systemic narratives of violence and neglect of Indigenous women, and racial discrimination and prejudice. A comparison between the domains found on conventional ACE surveys and the domains generated from the experiences and perspectives shared by participants are necessary to include in ACE surveying methods among Indigenous children in Canada, as shown in Table 21.

The household dysfunction domain in the study findings is more comparable to the events found in standard ACE surveys. While standard ACE surveys recognize experiences such as sexual assault, the historical context of gender-based adversities and violence towards Indigenous women is much more complex and shown by the expanded subthemes in the gender-based adversities domain. Although racial discrimination is included in ACE surveys using expanded domains, the historical context and exclusion of some Indigenous peoples based on imposed characteristics and limitations (blood quantum, paternal identity) and lateral violence complicates the discrimination and its impacts, which is illustrated in the expanded subthemes in the racial discrimination domain. Finally, consideration of the unique historical adversities experienced by Indigenous people and communities in Canada is necessary to include in ACE surveying efforts.

The numerous health consequences of the adverse and traumatic events discussed by participants in this study are far reaching and act through direct and indirect pathways. Immediate physical health consequences from direct exposure to adversities such as physical abuse, or assault

can result in physical injuries and persistent mental health issues, such as anxiety and depression (Feletti et al., 1998; Whitbeck et al., 2009; Schilling et al., 2007). Delayed physical health consequences from direct, or indirect exposure to adversities, such as historical traumas, unmet healthcare needs, prolonged experiences of unsafe drinking water, gender-based violence, and addictions, can result in the development of chronic diseases, such as cancer, diabetes, heart disease, stroke, and depression (Brockie et al., 2015; Bombay et al., 2011; Whitbeck et al., 2009). Similarly, immediate and delayed mental health consequences, such as anxiety, depression, PTSD, and suicidality, can occur from adverse exposures to racial discrimination, lateral violence, sexual harassment, or assault, physical abuse, unmet healthcare needs, addictions, and neglect (Giovanelli et al., 2016; Alsaker et al., 2016; Finkelhor et al., 2007).

Additionally, there were many conclusions reached as a result of the coping mechanisms and resiliency factors that were identified by the participants of this study. The importance of healing unresolved trauma and grief, potentially from historical traumas, cannot be understated as an overarching and preceding factor to any other attempts to cope. Without identifying and healing unresolved trauma the root cause will not be addressed and the impact of integrating other resiliency factors, such as greater cultural connections, will likely be reduced. Cultural connections provide a platform from which individuals can gain the other factors, or themes identified, making them central to holistic and comprehensive strategies to build resiliency. Through greater cultural connection Indigenous individuals can engage with Elders and traditional teaching, have a sense of belonging and strengthen relationships in a caring community, and develop the skills necessary to adapt and thrive. The importance of being able to rely on a caring and supportive social network is of increased importance among Indigenous individuals, who may find it difficult to share an understanding of their experiences when engaging with non-Indigenous people. Lastly, specific

actions should be taken to ensure that development of individual level attributes and skills are being supported, in contrast to the more communal and societal focus of some of the previous factors and mechanisms.

8.1 Recommendations

Recommendation 1: In addition to the conventional domains of childhood adversity the following domains identified by participants of this study should be included when assessing ACE burden among Indigenous children:

- historical traumas and their cascading consequences: such as residential schools,
 the 60's scoop, cycles of poverty, and exposure to suicide,
- prolonged exposure to poor or lacking public infrastructure: such as poor water quality, lack of appropriate health services, and inadequate housing,
- communal gender-based adversity: such as the ongoing missing and murdered
 Indigenous women crisis,
- events of severe racial discrimination: such as ethnicity-based bullying, encounters
 of racism when assessing public services, and lateral violence.

In addition, when assessing ACE among Indigenous people, experiences should be approached form a communal, historical, and socioecological perspective. It is crucial to initiate a shift that recognizes that ACE among Indigenous people are often not isolated, individual incidents, but are part of a communal and historical narrative of adversities that continually burden Indigenous people and communities (Figure 3).

Recommendation 2: Future research should look to investigate the prevalence of adversities identified through this study in Indigenous communities and among Indigenous children.

Incorporating an open-ended aspect to surveying would allow for other potentially relevant adversities to be included in the survey as well. Connecting exposure to the expanded ACE domains identified in this study to higher allostatic load through hair cortisol testing, higher rates of poor health behaviours, such as substance abuse, or higher rates of poor health outcomes, such as chronic disease, would justify the findings of this study.

Recommendation 3: The interrelatedness of many coping mechanisms and events, or experiences that build resiliency alludes to the benefits of a more systemic and socioecological approach to improving individual coping habits as well (Figure 4). Overall, the domains and items discussed by participants of this study in relation to building healthy coping skills and mechanisms highlight the need for comprehensive and coordinated trauma-informed care or service planning among those that serve Indigenous people with ACE exposure.

Recommendation 4: Future research should look to investigate the efficacy of coping mechanisms and resiliency factors identified for overcoming trauma among Indigenous people. Connecting attempts to engage with the factors and mechanisms identified to improved health outcomes, or a reduction in poor health behaviours or of health trajectories, would justify their inclusion as valid and effective coping mechanisms and factors.

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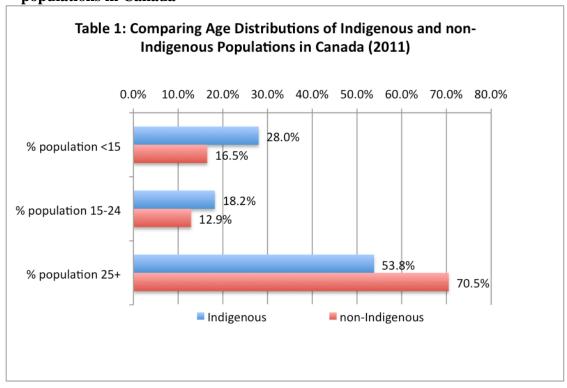
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Table 1: Comparing age distribution between Indigenous and non-Indigenous populations in Canada



Appendix A
Table 2: Comparing living setting between Indigenous and non-Indigenous populations in Canada

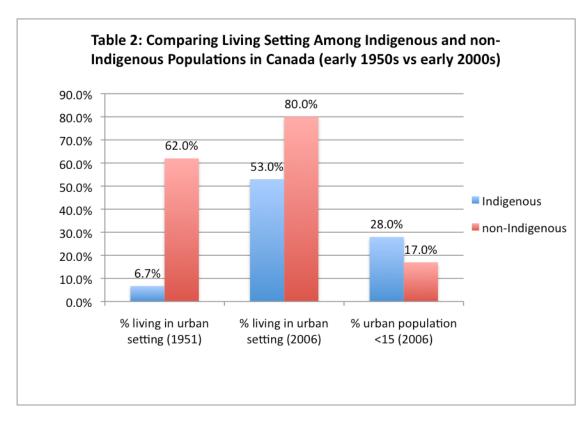


Table 3: Comparing average life expectancy and self-rated health among Indigenous and non-Indigenous people in Canada

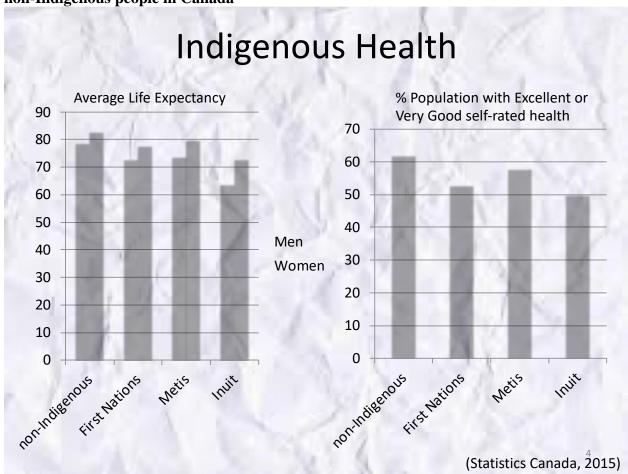


Table 4: Comparing select health issues and behaviours among Indigenous and non-Indigenous people in Canada

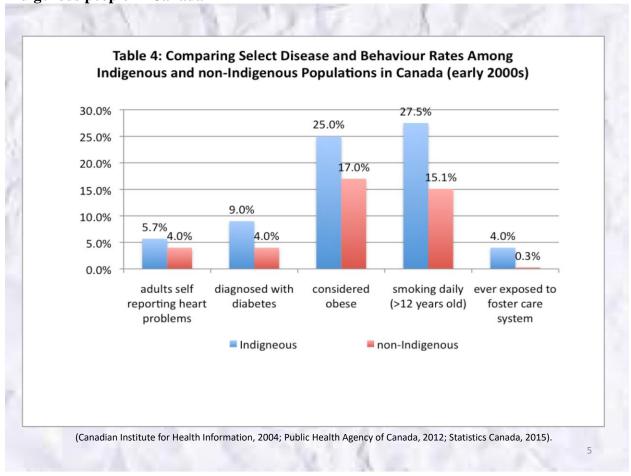


Table 5: Associations between ACE Exposure and Select Health Behaviours

The Adverse Childhood Experiences (ACE) Study

Felitti et al, 1998 – Kaiser Permanente Medical Group, San Diego

Behaviour/Health issue	0 ACE	4+ ACE
Currently smoke	1	2.2x more likely
Experience regular depressive states	1	4.6x more likely
Illicit drug user	1	4.7x more likely
Experience alcoholism	1	7.4x more likely
Injection drug user	1	10.3x more likely
Attempted suicide	1	12.2x more likely

7

Table 6: Associations between ACE Exposure and Select Chronic Diseases

The Adverse Childhood Experiences (ACE) Study

Felitti et al, 1998 – Kaiser Permanente Medical Group, San Diego

Disease Condition	0 ACE	4+ ACE
Any cancer	1	1.9x more likely
Stroke	1	2.4x more likely
Diabetes	1	1.6x more likely
Ischemic heart disease	1	2.2x more likely
Chronic bronchitis	1	3.9x more likely

8

Table 7: Investigations of expanded ACE Domains

Study	Population	Expanded ACE Domains	Findings
Finkelhor et al., 2013	 Low income households ~39% identified as Black or Hispanic 	 Property victimization Peer victimization Community violence exposure No good friends/social isolation 	Strength of association between ACE exposure and disease symptoms improved by including additional domains
Wade Jr et al., 2014	 Low income youth in Philadelphia ~95% non-white identity ~85% from neighbourhood with >20% poverty levels 	 Neighbourhood crime Neighbourhood violence Neighbourhood death Racial discrimination Exposure to juvenile justice system 	Participants shared that the identified ACE domains were adverse, stressful, and harmful to overall health
Cronholm et al., 2015		 Witnessing violence Racial discrimination Unsafe neighbourhood Severe bullying 	40.5% participants reported witnessing violence; 34.5% reported severe racial discrimination; 27.3% reported violence in their neighbourhood; 8% reported severe bullying
Brockie et al., 2015	- Reservation based Native Americans (US)	Historical lossRacial discrimination	Historical loss and racial discrimination were associated with increased risk of depression, poly- drug use, and PTSD symptoms
Kenney & Singh, 2016	- American Indians (AI) and Alaska Natives (AN) (US)	- Poverty - Racial discrimination	AI/AN children were more likely to report greater ACE burdens and are at greater risk of mental and physical health problems in comparison to non-AI/AN children

Table 8: Sample and Participant Demographics

Date	Participant #	Pseudonym	Gender	Identity	Age	Identitied as Indigenous
September 21st, 2017	1	Kerry	F	First Nations	23	birth
September 21st, 2017	2	Simone	F	First Nations	22	13
September 21st, 2017	3	Sierra	F	First Nations	21	birth
September 21st, 2017	4	Danielle				
December 18th, 2017	5	Tim				
January 13th, 2018	6	Dhalia	F	Metis	24	13
January 13th, 2018	7	Ben	М	First Nations	25	birth
January 15th, 2018	8	Claire	F	Metis	28	26
January 17th, 2018	9	Eden	F	First Nations	22	birth
Februay 6th, 2018	10	Zack	М	First Nations	28	birth
February 9th, 2018	11	Steve	М	Metis	29	16
February 16th, 2018	12	Geoff	М	First Nations	27	15
February 26th, 2018	13	Lindsay	F	First Nations	22	birth
March 5th, 2018	14	Kate	F	Metis	26	birth
March 14th, 2018	15	Whitney	F	First Nations	38	birth
March 16th, 2018	16	Jenn	F	First Nations	26	14

^{*} note that two participants did not complete demographic information sheets.

 $\begin{tabular}{ll} \textbf{Table 9: Themes generated from discussion of ACE impacting Indigenous children} \end{tabular}$

Thematic Categories	Subthemes	Number of Mentions	% of Sample
T1: Historical Traumas	Children and family policies	16	100%
	*Residential schools		
	*60's scoop		
	*Child welfare system		
	Cultural and community disruption	14	87.5%
	Cycle of poverty	8	50%
	*Food insecurity		
	Suicides	9	56.25%
T2: Lack of Public Services	Lack of safe water	12	75%
	Poor health services	8	50%
	*Undiagnosed		
	*Unmet healthcare needs		
	Inadequate housing	8	50%
T3: Household or	Loss of a family member	6	37.5%
Community Dysfunction	Abuse	9	56.25%
	Addictions	13	81.25%
	*Alcohol		
	*Drugs		
	*Gambling		
	Lack of parenting	7	46.67%
	Exposure to serious crime	5	31.25%
T4: Gender-based Adversities	Sexual harassment	16	100%
	Sexual assault	16	100%
	MMIW	9	56.25%
	Domestic violence	7	46.67%
	*Staying at women's shelter		
	Gender discrimination	3	18.75%

T5: Discrimination	Ethnicity-based bullying	16	100%
	Public encounters of racism	11	68.75%
	Familial racism and prejudice	10	62.5%
	*Lateral violence		
	*Not understanding your identity		
	Devaluing identity and lived experience	5	31.25%

Table 10: Themes generated from discussion of coping mechanisms and resiliency factors relevant to Indigenous people

Thematic Categories	Themes	Number of Mentions	% of Sample
T1: Addressing Trauma	Healing through helping others	8	50%
	Accessing counselling	8	50%
	Embracing identity	4	25%
	Societal awareness of Indigenous issues	2	12.5%
T2: Cultural Connections	Ceremony	6	37.5%
	Indigenous-based Programming	8	50%
	Connecting to Traditional Knowledge	7	43.75%
	*Elders		
	Language, Music, and Dance	3	18.75%
T3: Social Network	Caring Community	9	56.25%
	*Supportive leadership		
	*Social support		
	Building Relationships	6	37.5%
	Acceptance and Belonging	4	25%
	*Free to express oneself		
T4: Personal Attributes	Willingness to learn and engage	7	43.75%
	Confidence	6	37.5%
	Mindfulness	4	25%
	Laughing and Optimism	5	31.25%
	Gaining skills	6	37.5%
	*Academic		
	*Leadership		
	*Communication		

Table 11: Overall Impact Ranked List of Adverse Childhood Experiences or Events

Adverse Experiences or Events (domains and subthemes)	Impact	% total		
Cultural and community disruption	45	6.29		
Child welfare system	42	5.87		
Bullying	32	4.48	Historical Traumas	
Sexual harassment	32	4.48	Historical Haumas	
Lateral violence	31	4.34		
Gender-based violence	30	4.20		
Sexual assault	30	4.20		
Familial racism and prejudice	30	4.20		
Devaluing identity and lived experience	29	4.06		
Racial discrimination	28	3.92		
Public encounters of racism	27	3.78	Lack of Infrastructure	
Suicide	27	3.78	Dack of Hill doct detaile	
Poverty	26	3.64		
Loss of a family member	24	3.36		
Lack of safe drinking water	24	3.36		
Abuse	21	2.94		
Lack of appropriate health services	19	2.66	Household and Communi Level	
Food insecurity	19	2.66		
Missing and/or murdered Indigenous women	19	2.66		
Lack of infrastructure	19	2.66	20101	
Alcohol abuse	18	2.52		
Lack of parenting	17	2.38		
Domestic violence	15	2.10		
Inadequate housing	15	2.10		
Drug abuse at/in home	13	1.82	Gender-based Adversities	
Historical traumas	12	1.68	Gender-based Adversities	
Experience staying at women's shelters	11	1.54		
Exposure to serious crime	10	1.40		
Residential schools	10	1.40		
Misdiagnosis of health disorders	10	1.40		
60's Scoop	10	1.40		
Gender discrimination against women	9	1.26	Racial Discrimination	
Family and close friends not understanding your identity	5	0.70	raciai Discrimination	
Unmet healthcare needs	4	0.56		
Gambling	2	0.28		
	715			

^{*} note that three participants did not complete the impact ranking process.

Table 12: Adverse experiences ranked impact list by female participants

Table 12. Adverse experiences ranked impact list by remain	participant	۱3
Experience/Event	total votes	% total votes
Sexual harassment	31	6.26
Child welfare system	31	6.26
Racial discrimination	28	5.66
Cultural and community disruption	27	5.45
Devaluing identity and lived experience	25	5.05
Lack of safe drinking water	24	4.85
Suicide	24	4.85
Familial racism and prejudice	24	4.85
Bullying	22	4.44
Public encounters of racism	21	4.24
Lack of appropriate health services	19	3.84
Missing and/or murdered Indigenous women	19	3.84
Alcohol abuse	18	3.64
Sexual assault	18	3.64
Poverty	16	3.23
Lateral violence	16	3.23
Domestic violence	15	3.03
Abuse	13	2.63
Gender-based violence	13	2.63
Lack of parenting	12	2.42
Experience staying at women's shelters	11	2.22
Loss of a family member	10	2.02
60's Scoop	10	2.02
Misdiagnosis of health disorders	10	2.02
Gender discrimination against women	9	1.82
Historical traumas	8	1.62
Food insecurity	6	1.21
Exposure to serious crime	5	1.01
Drug abuse at/in home	4	0.81
Family and close friends not understanding your identity	4	0.81
Gambling	2	0.40
	495	100.00
		300.00

Table 13: Adverse experiences ranked impact list by male participants

Experience/Event	total votes	% total votes
Lack of infrastructure	19	8.64
Cultural and community disruption	18	8.18
Gender-based violence	17	7.73
Lateral violence	15	6.82
Inadequate housing	15	6.82
Loss of a family member	14	6.36
Food insecurity	13	5.91
Sexual assault	12	5.45
Child welfare system	11	5.00
Bullying	10	4.55
Poverty	10	4.55
Residential schools	10	4.55
Drug abuse at/in home	9	4.09
Abuse	8	3.64
Public encounters of racism	6	2.73
Familial racism and prejudice	6	2.73
Lack of parenting	5	2.27
Exposure to serious crime	5	2.27
Devaluing identity and lived experience	4	1.82
Unmet healthcare needs	4	1.82
Historical traumas	4	1.82
Suicide	3	1.36
Sexual harassment	1	0.45
Family and close friends not understanding your identity	1	0.45
	220	100.00

Table 14: Adverse experiences ranked impact list by participants aged 18-24

Experience/Event	total votes	% total votes
Sexual harassment	31	9.39
Suicide	24	7.2
Cultural and community disruption	24	7.2
Devaluing identity and lived experience	20	6.00
Child welfare system	17	5.1:
Sexual assault	16	4.8
Bullying	15	4.5
Public encounters of racism	13	3.9
Lack of safe drinking water	13	3.9
Gender-based violence	13	3.9
Lack of appropriate health services	12	3.6
Missing and/or murdered Indigenous women	12	3.6
Alcohol abuse	11	3.3
Familial racism and prejudice	11	3.3
Racial discrimination	11	3.3
Loss of a family member	10	3.0
Misdiagnosis of health disorders	10	3.0
60's Scoop	10	3.0
Poverty	8	2.4
Historical traumas	8	2.4
Lack of parenting	7	2.1
Lateral violence	7	2.1
Domestic violence	5	1.5
Exposure to serious crime	5	1.5
Experience staying at women's shelters	5	1.5
Drug abuse at/in home	4	1.2
Family and close friends not understanding your identity	4	1.2
Abuse	3	0.9
Gambling	1	0.3
	330	100.0

Table 15: Adverse experiences ranked impact list by participants aged 25-34

Experience/Event	total votes	% total votes
Lateral violence	24	
Child welfare system	21	6.36
Food insecurity	19	5.76
Familial racism and prejudice	19	5.76
Lack of infrastructure	19	5.76
Cultural and community disruption	18	5.45
Abuse	18	5.45
Bullying	17	5.15
Poverty	17	5.15
Gender-based violence	17	5.15
Racial discrimination	17	5.15
Inadequate housing	15	4.55
Loss of a family member	14	4.24
Sexual assault	14	4.24
Lack of parenting	10	3.03
Residential schools	10	3.03
Devaluing identity and lived experience	9	2.73
Drug abuse at/in home	9	2.73
Alcohol abuse	7	2.12
Public encounters of racism	6	1.82
Lack of safe drinking water	6	1.82
Lack of appropriate health services	5	1.52
Exposure to serious crime	5	1.52
Unmet healthcare needs	4	1.21
Historical traumas	4	1.21
Suicide	3	0.91
Sexual harassment	1	0.30
Family and close friends not understanding your identity	1	0.30
Gambling	1	0.30
	330	100.00

Table 16: Adverse experiences ranked impact list by participants aged 35 or older

Experience/Event	total votes	% total votes
Domestic violence	10	18.18
Gender discrimination against women	9	16.36
Public encounters of racism	8	14.55
Missing and/or murdered Indigenous women	7	12.73
Experience staying at women's shelters	6	10.91
Lack of safe drinking water	5	9.09
Child welfare system	4	7.27
Cultural and community disruption	3	5.45
Lack of appropriate health services	2	3.64
Poverty	1	1.82
	55	100.00

 $\begin{tabular}{ll} Table 17: Adverse experiences ranked impact list by participants who have identified as Indigenous their whole lives \\ \end{tabular}$

Experience/Event	total votes	% total votes
Cultural and community disruption	35	7.95
Public encounters of racism		5.23
Sexual harassment	23	5.23
Sexual assault	23	5.23
Familial racism and prejudice	23	5.23
Loss of a family member	21	4.77
Food insecurity	19	4.32
Gender-based violence	19	4.32
Lack of safe drinking water	18	4.09
Suicide	18	4.09
Poverty	18	4.09
Child welfare system	17	3.86
Domestic violence	15	3.41
Devaluing identity and lived experience	15	3.41
Bullying	14	3.18
Lack of appropriate health services	14	3.18
Historical traumas	12	2.73
Abuse	11	2.50
Lack of infrastructure	10	2.27
Misdiagnosis of health disorders	10	2.27
Racial discrimination	10	2.27
60's Scoop	10	2.27
Missing and/or murdered Indigenous women	9	2.05
Gender discrimination against women	9	2.05
Alcohol abuse	8	1.82
Exposure to serious crime	8	1.82
Inadequate housing	8	1.82
Experience staying at women's shelters	6	1.36
Family and close friends not understanding your identity	5	1.14
Drug abuse at/in home	5	1.14
Lack of parenting	4	0.91
	440	100.00

Table 18: Adverse experiences ranked impact list by participants who have not identified as Indigenous their whole lives

Experience/Event	total votes	% total votes
Lateral violence	31	11.27
Child welfare system	25	9.09
Bullying	18	6.55
Racial discrimination	18	6.55
Devaluing identity and lived experience	14	5.09
Lack of parenting	13	4.73
Gender-based violence	11	4.00
Alcohol abuse	10	3.64
Cultural and community disruption	10	3.64
Missing and/or murdered Indigenous women	10	3.64
Abuse	10	3.64
Residential schools	10	3.64
Sexual harassment	9	3.27
Suicide	9	3.27
Lack of infrastructure	9	3.27
Drug abuse at/in home	8	2.91
Poverty	8	2.91
Sexual assault	7	2.55
Familial racism and prejudice	7	2.55
Inadequate housing	7	2.55
Lack of safe drinking water	6	2.18
Lack of appropriate health services	5	1.82
Experience staying at women's shelters	5	1.82
Public encounters of racism	4	1.45
Unmet healthcare needs	4	1.45
Loss of a family member	3	1.09
Exposure to serious crime	2	0.73
Gambling	2	0.73
	275	100.00

Table 19: Adverse experiences ranked impact list by Métis participants

Experience/Event	total votes	% total votes
Child welfare system	27	16.36
Lateral violence	22	13.33
Familial racism and prejudice	13	7.88
Poverty	11	6.67
Cultural and community disruption	10	6.06
Missing and/or murdered Indigenous women	10	6.06
Devaluing identity and lived experience	10	6.06
Racial discrimination	9	5.45
Suicide	9	5.45
Sexual harassment	8	4.85
Drug abuse at/in home	8	4.85
Food insecurity	6	3.64
Sexual assault	5	3.03
Bullying	4	2.42
Lack of appropriate health services	4	2.42
Alcohol abuse	3	1.82
Lack of parenting	3	1.82
Public encounters of racism	2	1.21
Gambling	1	0.61
	165	100.00

Table 20: Adverse experiences ranked impact list by First Nations participants

Experience/Event	total votes	% total votes
Cultural and community disruption	35	6.36
Gender-based violence	30	5.45
Bullying	28	5.09
Public encounters of racism	25	4.55
Sexual assault	25	4.55
Sexual harassment	24	4.36
Lack of safe drinking water	24	4.36
Loss of a family member	24	4.36
Abuse	21	3.82
Racial discrimination	19	3.45
Devaluing identity and lived experience	19	3.45
Lack of infrastructure	19	3.45
Suicide	18	3.27
Familial racism and prejudice	17	3.09
Child welfare system	15	2.73
Lack of appropriate health services	15	2.73
Alcohol abuse	15	2.73
Poverty	15	2.73
Domestic violence	15	2.73
Inadequate housing	15	2.73
Lack of parenting	14	2.55
Food insecurity	13	2.36
Historical traumas	12	2.18
Experience staying at women's shelters	11	2.00
60's Scoop	10	1.82
Misdiagnosis of health disorders	10	1.82
Exposure to serious crime	10	1.82
Residential schools	10	1.82
Missing and/or murdered Indigenous women	9	1.64
Lateral violence	9	1.64
Gender discrimination against women	9	1.64
Drug abuse at/in home	5	
Family and close friends not understanding your identity	5	
Unmet healthcare needs	4	0.73
Gambling	1	0.18
	550	

Table 21: Comparison of Conventional ACE Survey and Study Generated ACE Domains

I I	Study Generated ACE Survey Domains
- Physical Abuse - Emotional Abuse - Sexual Abuse - Neglect - Physical Neglect - Emotional Neglect - Substance Abuse in Household - Severe Mental Illness in Household - Domestic Violence - Criminal Behaviour in Household - Witnessed Violence - Felt Discrimination - Unsafe Neighbourhood - Severe Bullying - Lived in Foster Care	Historical Traumas - Children and Family Policies - Cultural and Community Disruption - Cycle of Poverty - Suicide Lack of Public Services - Lack of Safe Water - Lack of Appropriate Health Services - Inadequate Housing Household or Community Dysfunction - Loss of a Family Member - Abuse - Addictions - Lack of Parenting - Exposure to Serious Crime Gender-based Adversities - Sexual Harassment - Sexual Assault - Missing and Murdered Indigenous Women - Domestic Violence - Gender Discrimination Racial Discrimination - Ethnicity-based bullying - Public Encounters of Racism - Familial Racism and Prejudice - Devaluing of Indigenous Identities

Figure 1: Nominal Group Technique Flowchart with Sharing Circle Elements

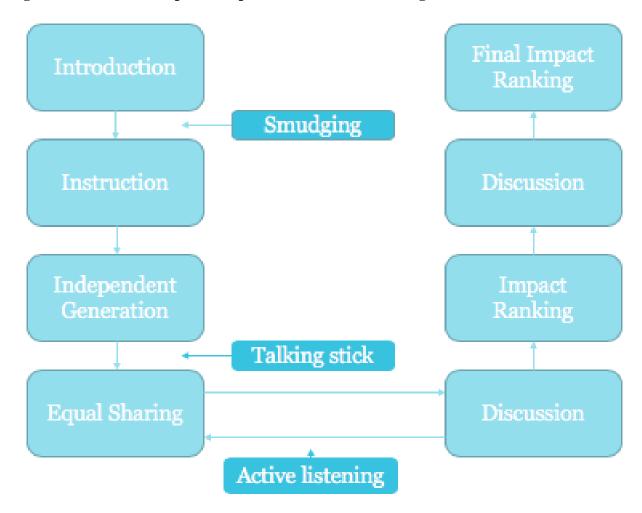


Figure 2: Themes and Subthemes Mind Map

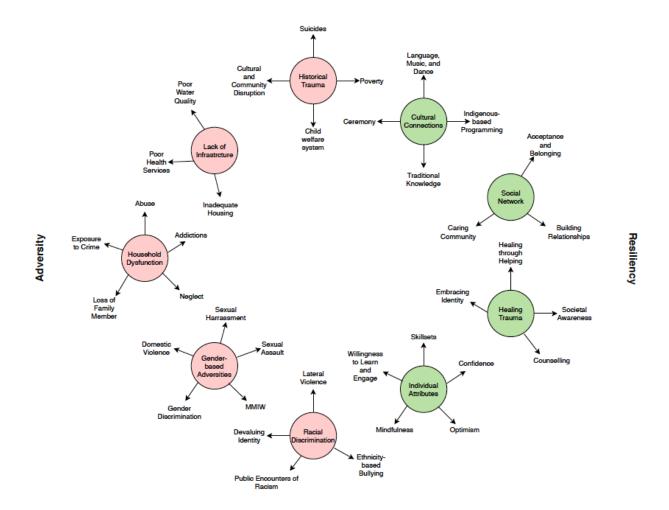


Figure 3: Socioecological Conceptualization of Adversities

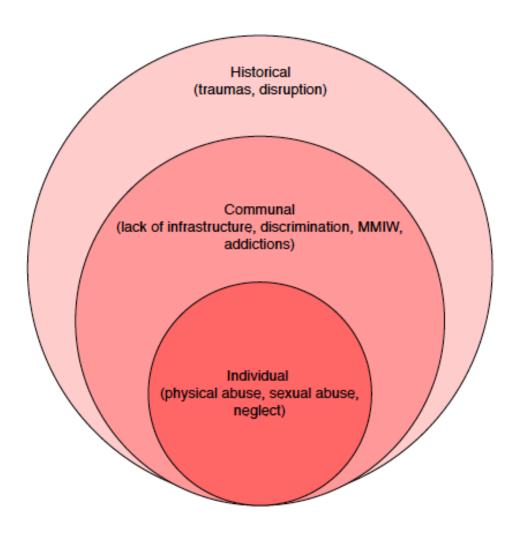
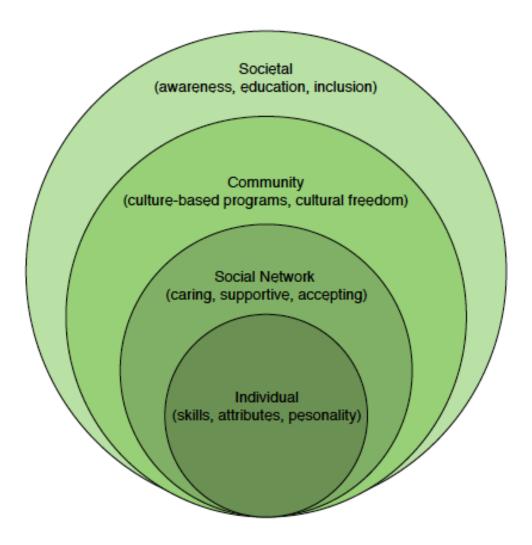


Figure 4: Socioecological Conceptualization of Resiliency and Coping Mechanisms



School of Public Health and Health Systems University of Waterloo

VOLUNTEERS NEEDED FOR RESEARCH INTO THE CHILDHOOD EXPERIENCES OF INDIGENOUS PEOPLE

We are looking for volunteers to participate in a study on the childhood experiences of Indigenous people living in Canada.

Volunteers should be comfortable sharing positive and negative childhood experiences.

As a participant, you will be asked to complete a survey, and then choose whether to take part in a one-on-one interview, or a focus group about childhood events and coping skills.

Participation will take about 90-120 minutes.

In appreciation of your time, you will receive \$15 cash.

Who is eligible?

Participants must identify as Indigenous and be at least 18 years old.

For more information about this study, or to become a participant, please contact:

Alex Luther

School of Public Health and Health Systems
University of Waterloo

at

alex.luther@uwaterloo.ca or

519-888-4567, extension 38843

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee.

Information Letter

Title of Project: Developing a more inclusive approach to surveying adverse childhood experiences among Indigenous communities within Canada.

Faculty Investigators: Dr. John G. Mielke, jgmielke@uwaterloo.ca (Co-Supervisor)

University of Waterloo, School of Public Health and Health Systems

(519) 888-4567, extension 38606

Dr. Kelly Anthony, kanthony@uwaterloo.ca (Co-Supervisor)

University of Waterloo, School of Public Health and Health Systems

(519) 888-4567, extension 32802

You are invited to participate in a research study that will examine childhood experiences and coping skills among Indigenous people living in Canada. The purpose of this study is to help us develop a better way to measure certain kinds of early life experiences that may affect health and well-being later in life. The study will make an important contribution to the MSc thesis requirements of one of the researchers (Alex Luther). As well, we hope that this study will help to support the Calls to Action produced by the Truth and Reconciliation Commission on child welfare and health.

What You Will Be Asked to Do

As a participant in this study, you will first be asked to complete a survey that asks a few general questions about your background (for example, whether you are First Nations, Métis, or Inuit). After completing the survey, you will be asked to share your thoughts about harmful, stressful, or emotionally painful childhood events that may have happened to you, or someone you knew. For our study, "childhood" will mean events taking place before the age of 18.

Regardless of whether you have chosen to participate in a one-on-one interview, or with a small group of people in a focus group setting, you will be asked two questions:

1) "What events do you think of as harmful, stressful, and/or emotionally painful in childhood? These could have happened to you, a friend, a family member, or to someone in your community."

2) "Which childhood experiences do you think may have been helpful in coping with the events we just discussed? How did you, a friend, a family member, or someone in your community overcome events that were harmful, stressful, or emotionally painful?"

Those participants in a focus group will be asked to write down their responses for the first question, and then everyone in the group will be given equal time to share them. Next, focus group members will be asked to rank the impact, or weight of the responses based on the prevalence of each event in your community. After this, focus group members will participate in an open discussion around the second question.

Those participants in a one-on-one interview will be asked to write down their responses for the first question, and will then be given an opportunity to discuss their written thoughts with the interviewer before moving onto the second question.

Please note that, with your permission, your comments around the second question will be audio-taped as a means of collecting data.

The focus group, or individual interviews, will be held at the Waterloo Aboriginal Education Centre (WAEC) on the University of Waterloo campus. The WAEC is located in room 232 of St Paul's University College. Our study will take about 90 to 120 minutes of your time.

Participation

Your involvement in this study is entirely voluntary. You may decline answering any questions you do not want to answer and you may decline to participate in any part of the study. You are able to leave at any time without penalty.

If you wish to withdraw from the study, you can do so by telling the pre-identified researcher of your choice to exit. Before leaving you will be provided with an opportunity to talk with a counselor, and will receive both the remuneration and feedback materials.

As a participant, you will be trusted to keep the information and identities of others in the group private.

Risks and Benefits to Being Involved with Our Study

As a study participant, there are no anticipated benefits to you personally from your involvement, except for the potentially positive effect of healing from a shared discussion of personal stories and events.

Discussing personal and sensitive events may make some participants anxious, or uncomfortable. To offset this risk, an Elder and an Indigenous facilitator will be present to help guide participants through the study safely and comfortably. As well, a safe place will be set-up for participants who would like to smudge.

Should you have any discomfort as a result of your participation, we have listed below both on campus and community services that may be of help. The groups listed will be able to appropriately assist you.

Services available to students:

- Student Counseling Services, 2nd floor Needles Hall:
 - o (519) 888-4567 ext. 32655
- Student Health Services:
 - o (519) 888-4096
- Waterloo Aboriginal Education Centre, St. Pauls University College:
 - o (519) 885-1460 ext. 220
 - o Contact: Shawn Johnston
- Laurier Aboriginal Student Centre:
 - o (519) 884-1970 ext: 4190
 - o Contact: Cori Arnold
- Aboriginal Services, Conestoga College:
 - o (519) 748-5220 ext. 2470 or 2251

Services available in the community:

- Public Health Services General Information Line:
 - o (519) 575-4400
- Here 24/7 (Mental Health and Crisis Services)
 - o 1-844-437-3247 or here247.ca
- Healing of 7 Generations:
 - o (519) 570-9118
 - o Contact: Donna Dubae
- White Owl Family Centre:
 - o (519) 772-4399 Ext. 2798
 - o Contact: Michelle Sutherland

Privacy

All information you provide will be kept private by the researchers.

All information from study participants will have personal identifiers removed, and be grouped with responses from other participants. As a result, determining any individual person's comments from the results will not be possible. The results of the study will be presented (for example, conference presentations, journal articles) at the group level only.

Paper data from the study will be kept secure in a locked cabinet for at least seven years in the office of Dr. John G. Mielke. Digital data will be encrypted on a password protected computer and secured in the same manner as paper data. After seven years, if no longer needed, all data will be destroyed.

Please note that there are limits to the confidentiality that can be guaranteed for those participants who take part in the focus group. Even though all participants will be asked to respect the privacy of other group members and to not identify any participants, or their comments, this privacy cannot be guaranteed. As well, due to the kinds of experiences being shared, there may be ethical implications regarding the duty to disclose information to the relevant authorities.

Remuneration

Thank you for your interest in this project. In appreciation of your time, we will provide you with \$15 cash. Please note that the remuneration is taxable, and it is your responsibility to report this amount for income tax purposes.

Questions and Research Ethics Clearance

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE #22313). If you have questions for the Committee contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 extension 36005 or ore-ceo@uwaterloo.ca.

For all other questions contact Alex Luther (MSc Candidate, School of Public Health and Health Systems) at alex.luther@uwaterloo.ca or (519) 888-4567, extension 38843.

Consent of Participant

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about a research study being conducted by Alex Luther of the School of Public Health and Health Systems at the University of Waterloo, under the supervision of Dr. John Mielke and Dr. Kelly Anthony. I have had the opportunity to ask any questions related to this study, and to receive acceptable answers to my questions and any other details I wanted.

As a participant of this study I realize that I may take part in a focus group or interview, and that I may decline involvement in any of the steps. All information that I provide will be kept private by the researchers. As well, I am aware that I may withdraw from the study without penalty at any time. In appreciation of my decision to participate I am aware that I will receive \$15 cash.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this research session and to keep in confidence information that could identify other members in the study.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE #22313). If you have questions for the Committee contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

For all other questions contact Alex Luther (MSc Candidate, School of Public Health and Health Systems) at alex.luther@uwaterloo.ca or (519) 888-4567, extension 38843.

Print Name	
Signature of Participant	

Dated a	t Waterloo, Ontario
Witnes	sed
Signatu	re of Witness
	Consent for Audio Recording
	As a participant of this study, I agree to be audio-recorded during discussion related to coping and resiliency. I am aware that I may decline to answer any questions and withdraw this consent at any time without penalty, by advising a member of the research team (the pre-identified withdrawing researcher). I am aware that I can ask for the recording of my comments to be paused at any time.
	Consent for Re-contact
meetin Agreeir	our agreement, I would like to contact you in the future to invite you to take part in a follow-up g. We will discuss the results of the study and potential plans for dissemination amongst the group. If you be contacted does not obligate you to take part in any more meetings. You may decide if you erested at the time of contact. Your name and contact details will still be kept private by the hers.
	I would like to be contacted about possible follow-up opportunities for this study. I am aware that my agreement now does not obligate me to take part in any more meetings, and that at any time I may request that my name and contact information be deleted.

Demographic Questionnaire

1. Ye	ar of birth:				
2. Ge	ender (Please mark all that	apply): Fem	ale 🗆 Male	□ Two-Spirit □	Trans male \Box
		Trai	ns female 🗆	Non-Binary 🗆	
3. Ho	ow do you identify yoursel	f? (Please mark a	all that apply):		
	☐ First Nations	☐ Métis	☐ Inuit	☐ More than one id	lentity
	☐ Specific Tribe or Nation:				
5. Pl	what age did you begin to lease indicate where you munities you have lived in aple is provided. If you a munity: A: less than 1,000 peop B: between 1,000 and 2 C: between 30,000 and D: over 100,000 people	lived during y and how old you re able to, enter le 29,999 people 99,999 people	our childhood u would have	l (until age 18). Ple been when you lived	in each place. An

Age 0-9	Community	Size of Community (population)
0-9	Fergus, ON	В
10-18	Guelph, ON	С