Factors Associated with Suicidal Ideation for First Nations, Inuit, and Métis Peoples using the 2017 Aboriginal Peoples Survey

by

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ABSTRACT

Suicide is a global problem that results in a significant number of deaths and disabilities every year. In Canada, approximately 4,500 people die by suicide annually. Indigenous peoples are at an increased risk for suicide, and First Nations and Métis adults experience twice as many suicides as non-Indigenous peoples. The rate of suicide is even higher for Inuit adults, at four times that of non-Indigenous peoples. This project utilized the 2017 Aboriginal Peoples Survey (APS) with a sample of (N = 20,660) to examine unique protective and risk factors associated with suicidal ideation among Canada's First Nations, Inuit, and Métis peoples. The prevalence rate of Indigenous respondents who experienced suicidal ideation during the lifetime and last 12 months was found to be 18.9% and 5.6%, respectively. Three protective factors (language, cultural activities, sense of belonging) and nine risk factors (alcohol, drugs, mental health, mood disorders, anxiety disorders, health status, income, housing, and residential school attendance) were analyzed using various statistical tests, including Chi-squared analyses, logistic regression, and multiple logistic regression on the outcome variable of suicidal ideation during the lifetime and last 12 months. Findings revealed only partial support for the hypothesized protective factors and overwhelming support for risk factors.

Keywords: suicidal ideation, Canada, Indigenous peoples, First Nations, Inuit, Métis, adult, protective and risk factors

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POSITIONALITY STATEMENT

I am a Master's student in Clinical Psychology at the University of Manitoba. I am a bi-racial Cree First Nations and European settler and a member of Paul First Nation, which is located 70km North West of Edmonton, Alberta, situated on Treaty Six territory, the traditional territory of the Cree, Blackfoot, Métis, Nakota Sioux, Iroquois, Dene, and Ojibway/Saulteaux/Anishinaabe nations. My philosophical outlook in life is based on the idea that everyone should be treated with respect and dignity regardless of race, sex, ethnicity, gender, sexual orientation, mental or physical disability, or religion. Having been raised primarily in urban areas, I am acutely aware that I lack specific cultural knowledge pertaining to both my Indigenous and European backgrounds that might have been more readily available if I were monoracial. Interestingly, this unique opportunity of existing simultaneously within two very different cultures, while admittedly difficult at times, has served as a distinct learning opportunity that has (and continues) to provide me with special experiences. This metaphorical 'walking between two worlds' goes beyond just a point of cultural identity; it also extends to various aspects of my life. This also includes being a gay man, or "two-spirited," and engaging in research utilizing the scientific method while concomitantly holding deep spiritual views and practices. I hope to eventually practice clinical psychology in underserved remote Indigenous communities providing culturally appropriate treatments and interventions.

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INTRODUCTION

The impact of suicide is far-reaching, significantly affecting the lives of families, friends, and communities close to the decedent (Klonsky et al., 2016; World Health Organization [WHO], 2021; WHO, 2014). Every year approximately 4,500 people die by suicide in Canada (Public Health Agency of Canada, 2023). For every death that occurs by suicide, 7 to 10 survivors are left to cope with the decedent's loss (Public Health Agency of Canada, 2023). Given this estimation, as many as 31,500 – 45,000 Canadians suffer annually from the loss of another to suicide. The effect of which can be a heightened risk of mental health issues, including depression, anxiety, posttraumatic stress disorder (PTSD), and suicidal behaviour in the bereaved (Mitchell et al., 2009; Cerel et al., 2016; De Groot et al., 2006; Jordan, 2001; Erlangsen et al.,2017; Zisook et al.,2014; Wagner et al., 2021; Tal Young et al., 2012).

Numerous theories aim to explain suicide. For instance, the Interpersonal Theory of Suicide (IPTS) developed by Thomas Joiner attributes suicidal behaviour to habituation and opponent processes, resulting in sustained exposure to painful and distressing experiences (Van Orden et al., 2010). The IPTS has two underlying predictions: 1) when an individual perceives burdening those around them or experiences alienation there is an increase in the desire for death, and 2) individuals will not pursue the desire for death unless they have the means to do so (Joiner et al., 2009). This model includes three specific constructs: perceived burdensomeness, thwarted belongingness, and acquired capability (O'Keefe et al., 2018). It is argued that if an individual experiences two of these constructs, the development of suicidal ideation will occur (O'Keefe et al., 2018). Furthermore, the theory holds that the capability for suicidal behaviour emerges due to habituation in response to persistent exposure to painful and fear-inducing experiences (Van Orden et al., 2010).

Another theory of suicide is the Integrated Motivational-Volitional Model (IMV) of suicidal behaviour. The IMV of suicidal behaviour proposes that suicidal ideation develops due to experiencing defeat and entrapment and that these factors, known as volitional moderators, prompt suicidal ideation to progress into suicidal behaviours (O'Connor & Kirtley, 2018). The cry of pain hypothesis of suicide, proposed by Williams (1997), suggests that when an individual feels overwhelmed and confined by their situation, thoughts of suicide may become more evident. The IMV model is a tri-partite diathesis-stress model that consists of premotivational, motivational, and volitional phases. In line with the ideation-to-action framework, it identifies key constructs that assist in explaining the development of suicidal ideation and the progression from ideation to suicide attempt (Wetherall et al., 2019; Klonsky & May, 2014).

Most recently, it has been recognized amongst suicidology scholars that how suicide research and prevention are conducted is of concern due to ideological and epistemological differences that may not adequately reflect what is appropriate for Indigenous populations (Ansloos, 2018). In North America, health services generally have their foundations firmly rooted in the Western biomedical paradigm, which emphasizes individual-level behavioural changes with a strong focus on disease and disorders (Barker et al., 2017; Howell et al., 2016). This is markedly different from that of the Indigenous perspectives on health that takes a more holistic approach – comprised of four dimensions of health that include physical, mental, emotional, and spiritual well-being extending beyond the individual to include both family and members of the community (Howell et al., 2016).

Indigenous peoples often perceive the mind, body, and spirit as interconnected rather than separate entities. These holistic models align with traditional Indigenous worldviews that emphasize the significance of culture, spirituality, and relationship with self, others, and the

environment as sources of knowledge and well-being (Wilson, 2008; O'Keefe et al., 2018). For instance, the medicine wheel continues to be utilized by First Nations and Métis peoples (Smylie, 2001). The medicine wheel is a circular paradigm which can be used as a framework for understanding and is symbolic of wholistic living (Smylie, 2001; Mashford-Pringle & Shawanda, 2023). Divided into four quadrants with a variety of colours unique to each region (Mashford-Pringle & Shawanda, 2023), the medicine wheel teachings are used by different Indigenous nations and focus on various areas of health and wellness (Greer & Lemacks, 2024). For instance, the Anishinaabe medicine wheel begins in the East and is associated with the physical aspect of an Individual, the South with spirituality, the West with emotions, and finally, the North with the intellectual (Mashford-Pringle & Shawanda, 2023; Dapice, 2006). Good health involves a balance of physical, mental, emotional, and spiritual elements, all of which interact to create a strong, healthy individual. If an Individual neglects any one of these areas in their lives, it can lead to an imbalance, negatively affecting overall health in all areas (Malloch, 1989). The medicine wheel incorporates both Eastern and Western philosophies (Dapice, 2006). Eastern philosophy perceives life as cyclical, suggesting that what has occurred will recur, implying that change is unattainable. Conversely, Western philosophy is based on a linear model that emphasizes interventions. As a result, the medicine wheel embraces cycles, seasons, and transitions while allowing for the possibility and inevitability of change (Dapice, 2006).

The Inuit hold that grounding themselves in *Inuit Qaujimajatuqangit* (IQ), a term that is used to describe Inuit epistemology, assists in the development and maintenance of personal wellness (National Collaborating Center for Indigenous Health [NCCIH], 2010). IQ is based on four laws referred to as *maligait,* which consists of working for the common good, respecting all living things, maintaining harmony and balance, and planning and preparing for the future

(Government of Nunavut, C&SS, 2007; NCCIH, 2010). It is believed that the implementation of *maligait* fundamentally contributes to "living a good life" (NCCIH, 2010). Six fundamental principles form the philosophy for IQ, including the concept of serving (*Pijitsirniq*), the concept of consensus decision-making (*Aajiiqatigiingniq*), the concept of knowledge acquisition (*Pilimmakarniq*), the concept of collaborative relationships (*Piliriqatigiingniq*), the concept of management of the environment (*Avatimik Kamattiarniq*), and the concept of problem-solving (*Qanuqtuurnnarniq*) (NCCIH, 2010). Understandably, IQ is the foundation on which individuals' social, emotional, spiritual, cognitive, and physical well-being are based (NCCIH, 2010).

There are distinct and shared differences between Indigenous and Western theory in regard to their approach to well-being and its connection to suicidal behaviours. For instance, it has been recognized amongst suicidology scholars that how suicide research and prevention are conducted is of concern due to ideological and epistemological differences that may not adequately reflect what is appropriate for Indigenous populations (Ansloos, 2018). In North America, health services generally have their foundations firmly rooted in the Western biomedical paradigm, which emphasizes individual-level behavioural changes with a strong focus on disease and disorders (Barker et al., 2017; Howell et al., 2016). This is markedly different from that of the Indigenous perspectives on health, which takes a more holistic approach that emphasizes the prevention of sickness by living in balance with nature and the natural laws (Howell et al., 2016; Dapice, 2016). This is achieved by recognizing the four dimensions of health that include physical, mental, emotional, and spiritual well-being extending beyond the individual to also include both family and members of the community (Howell et al., 2016).

While many Western models have accumulated empirical support regarding suicidal behaviour over the years, the lack of crucial information concerning Indigenous peoples' contexts and worldviews has resulted in a lack of understanding of how to address this in Indigenous peoples (O'Keefe et al., 2018). Unfortunately, these perspective differences can hinder adequate health services for Indigenous peoples (Green, 2010). As such, it is imperative to develop and test culturally sound suicidology models if we are serious about decreasing the staggering rates of suicide in Indigenous populations (O'Keefe et al., 2018).

A strength-based approach must also be utilized when engaging in research that includes or comprises Indigenous populations. A strength-based approach recognizes and supports the numerous strengths, motivations, behaviours, and protective factors of an Individual that, in essence, nurtures their journey towards well-being (The First Nations Information Governance Centre [FNIGC], 2020). In contrast, a Western-based approach (also referred to as a "deficit-based model") emphasizes pathology, the cause and effect of disease, and identifying failures and deficits to be managed through healthcare interventions (Xie, 2013; Kennedy et al., 2022).

It is critical to adopt a "Two-Eyed Seeing" (TES), which recognizes the coexistence of multiple ways of understanding the world (Bartlett et al., 2012; Iwama et al., 2009). TES integrates both Indigenous and Western worldviews, allowing for a more comprehensive understanding of suicide risk among Indigenous peoples. This approach acknowledges that Indigenous and Western models share a concern for identifying and addressing the root causes of suicidal behaviors. However, Indigenous models emphasize holistic wellness and balance within physical, mental, emotional, and spiritual dimensions, extending to family and community, while Western models often focus on individual pathology and intervention. Integrating these

perspectives offers an opportunity to address gaps in understanding and improve culturally responsive approaches to suicide prevention.

Indigenous Peoples in Canada and Suicide

In Canada, the rates of suicide for First Nations, Inuit, and Métis peoples continue to be considerably higher than among non-Indigenous peoples (Pollock et al., 2018). For First Nations people, the rate of suicide has been reported to be 24.3 deaths per 100,000 per year. This is approximately three times higher than rates for non-Indigenous peoples, who experience 8.0 deaths per 100,000/year (Kumar & Tjepkema, 2019). Métis people experience rates of 14.7 deaths per 100,000/year, which is around twice as high as the rates for non-Indigenous peoples (Kumar & Tjepkema, 2019). In the same study, the rate was a staggering nine times greater for Inuit than non-Indigenous peoples, with 72.3 deaths per 100,000/year. These increased rates of suicide reflect the impact that the legacy of colonization continues to have on First Nation, Inuit, and Métis populations in Canada (White & Mushquash, 2016).

While the number of suicides for Indigenous peoples in Canada is shocking, it is critical to point out that these rates vary depending on the region and the Indigenous community. For example, a landmark paper by Chandler & Lalonde (1998) demonstrated that certain Indigenous or First Nations groups in British Columbia experienced significant suicide rates of 800 times the national average, while in other communities' suicide was non-existent. The authors attributed these marked differences in suicide rates to differences in youth engagement with community practices.

Numerous factors are believed to either mitigate or aggravate the risk of suicide in Indigenous peoples in Canada. Protective factors are characteristics that reduce an individual's likelihood of developing an illness or increase his or her resilience (Kirmayer et al., 2007).

Protective factors that have been found to buffer against suicidal ideation in Indigenous peoples are speaking an Indigenous language (Hallett et al., 2007), experiencing a sense of belonging (Neville et al., 2014), and having a sense of cultural identity (Hossain & Lamb, 2020). In contrast, risk factors are characteristics that increase an individual's likelihood of developing an illness (Kirmayer et al., 2007). Specifically, research has identified several risk factors that are known to contribute to suicidal ideation in Indigenous peoples, including alcohol misuse (Kirmayer et al., 2007), drug misuse (For the Cedar Project Partnership et al., 2009), mood and anxiety disorders (Brådvik, 2018; Bentley et al., 2016; Nepon et al., 2010), poor physical health (Onyeka et al., 2020), low income (Kumar & Tjepkema, 2019; Boksa et al., 2015; Bachmann, 2018), overcrowding and poor housing conditions (Laliberté & Tousignant, 2009), and having personally attended or have a family member that attended residential school (Boksa et al., 2015).

Regarding the research I looked at for identifying protective and risk factors for Indigenous peoples, I took a broader approach that included all groups instead of focusing on just one specific group/community. This was due to the need for more specific studies on each group. Additionally, as noted in the research, White (2007) acknowledges these people do "share a common cultural, political, and historical experience (i.e., colonization, cultural disruption, multi-generational losses). Moreover, I felt it was important to add to the literature on Indigenous peoples (grouped) and on individual communities as well; however, given the absence of literature for particular communities' vs lumped together, I felt it was most appropriate to start at the level of the three groups together and add what I can for each group.

Much of the literature on suicidal behaviours for Indigenous peoples in Canada tends to merge the three main Indigenous groups (e.g., First Nations, Inuit, and Métis) into one single

homogenous group. It has been stated in the literature that categorizing all Indigenous peoples in Canada as one single homogenous group would be inaccurate as it risks ignoring the immense diversity that exists within these distinct peoples' unique histories, languages, cultural practices, and spiritual ideals (Rowe & Ansloos, 2024; Indigenous Services Canada, 2020; Bellamy & Hardy, 2015). Using the 2017 Aboriginal Peoples Survey (APS), a national survey on the social and economic conditions of First Nations, Inuit, and Métis people in Canada, each Indigenous group in Canada was examined separately using both a strength and a Western-based approach to conducting research. This approach was taken to examine the prevalence rates and relationships between certain protective and risk factors that are thought to be associated with suicidal ideation. By examining both protective and risk factors of suicidal ideation in Indigenous peoples in Canada, the author was guided by a "Two-Eyed Seeing" approach. Two-Eyed Seeing (TES) is the belief that there are numerous ways of understanding the world (Bartlett et al., 2012; Iwama et al., 2009). It respectfully and passionately seeks to embody different ways of knowing by acknowledging and respecting diverse perspectives, Indigenous and non-Indigenous, so that ultimately, we are in a better situation to respond to some of the most pressing health issues faced by Indigenous populations (Bartlett et al., 2012; Iwama et al., 2009).

Protective Factors to Suicidal ideation in Indigenous Peoples

Examining protective factors is a strength-based approach to research that promotes practices and values crucial for Indigenous self-determination, recognizing the capacity of Indigenous peoples to effectively minimize problems (Bryant et al., 2021; Brough et al., 2004). In particular, three main protective factors were examined to better understand the impact they have on suicidal ideation in Indigenous communities.

Language

Language represents how we experience reality and is ultimately responsible for constructing the world we exist within (Holtgraves, 2001). Language plays a particularly vital role for Indigenous peoples as knowledge is not traditionally passed down to others through written words; instead, it often relies on symbolic and oral expression through language and modeling (Battiste, 2002). As such, Indigenous peoples have asserted that culture simply cannot exist without language, asserting that it is the most tangible symbol of cultural and group identity (McIvor et al., 2009; Norris, 1998). While there is a significant overlap between Indigenous groups in Canada, the role that language has and continues to play is demonstrated through the differences in cultural perspectives with regard to First Nations, Inuit, and Métis (Government of Canada, 2005). They are part of distinct identities, histories, cultures, and spiritual practices and beliefs – representing their unique connections to the land, family, community, and traditional knowledge (Norris, 2007; Bellamy & Hardy, 2015). In fact, there are estimated to be 70 different languages, with 12 major language families (Statistics Canada, 2017a). In particular, First Nations speak 59 unique languages, Métis speak both Michif as well as some other First Nation languages, and the Inuit speak various dialects of Inuktitut (e.g., Inuvialuktun, Inuinnaqtun; The Government of Canada, 2005; Tait et al., 2006). Colonial practices such as the residential school system were established for various reasons, one of which was the suppression of Indigenous languages (Kirmayer et al., 2007). While this had a significantly negative impact on Indigenous communities, the relatively recent revitalization of Indigenous languages in schools and communities may help to improve creating a sense of belongingness and cultural identity and strengthen community cohesion and well-being (Kirymayer et al., 2000; Hossain & Lamb, 2020; Sivak et al., 2019; Faruk & Rosenbaum, 2022). In a study by Hallett and colleagues (2007),

suicide rates for communities with higher language knowledge experienced 13.00 suicides per 100,000 when compared to communities with lower language knowledge (96.59 suicides per 100,000) (Hallett et al., 2007). These findings support that having knowledge of an Indigenous language may contribute positively to cultural integration and, in turn, health, and wellness, which are associated with lower suicide rates (McIvor et al., 2009; Hallett et al., 2007).

Sense of Belonging

Sense of belonging is conceptualized as feeling relatedness and connection in a system or environment in which one is an essential and valued member (Hagerty et al., 1992, Neville et al., 2014). It is multidimensional and indicative of the psychological, sociological, and physical relationships between individuals, families, or communities (Hill, 2009). For Indigenous peoples in Canada, the dominant nature of their worldview is relational and dependent on connections among other persons and the environment (Hill, 2006). Indigenous culture is indistinguishably linked to land and place; a collectivist sense of community and self emerges from this place-based understanding (Fleming & Ledogar, 2018; Lalonde, 2003). This is evident in how Indigenous communities have and continue to remain situated around the nuclear family as well as the extended family (Aguiar, 2015; Haig-Brown, 1988; Elsom, 2019). Many Indigenous peoples maintain a cultural perspective that depict Individuals as community-centered (King et al., 2009). This includes one where other people belonging to one's own community, the land, and animals are seen and experiences as being an extension of the self (King et al., 2009). This important connection between oneself and others provides a feeling of connectedness though family and community which are critical resources for developing this important sense of belonging, and identity, all of which are held to be protective factors for overall mental wellness and suicide in Indigenous populations (Middlebrook et al., 2001; Hill, 2009; Range et al., 1999;

Gone et al., 2019; Sjoblom et al., 2022). Another significant advantages that a sense of belonging promote are decreased levels of depression and anxiety (Cockshaw & Shochet, 2010; Hill, 2009; Neville et al., 2014), decreased alcohol misuse (McGivor et al., 2009; Herman-Stahl et al., 2003) and better health (Hale et al., 2005; Neville et al., 2014) This is further evidenced by a study by Hill (2009) in which a negative correlation was found between sense of belonging and suicidal ideation ($r = -.20$, $p \leq .01$). Sense of belonging is clearly a concept that has important ramifications with regard to psychological well-being (Sargent et al., 2022). As such, experiencing greater levels of sense of belonging to one's own Indigenous group is expected to safeguard against suicidal ideation.

Cultural Activities

According to Hossain & Lamb (2020) cultural attachment is the involvement that a person has with one's own traditional activities and language. For Indigenous peoples, this has and continues to be participating in activities such as gathering wild plants (Hossain & Lamb, 2020), hunting, fishing, and trapping (Kumar & Tjepkema, 2019, Trovato et al., 2018; Elsom, 2020, Kirmayer at al., 2003), making clothing (Emanuelsen, et al., 2020; Lemay, 2023), and art (Sydora et al., 2023; Van Styvendale, 2021, Pritzker, 1999). These activities provide essential opportunities to foster involvement with one's own traditional culture. In essence promoting cultural continuity, which has been found to lower suicide rates than communities that were not engaging in these practices (Chandler & Lalonde, 1998; Usborne & Taylor, 2010). Chandler and Lalonde (1998) examined six markers of cultural continuity among First Nation youth in British Columbia (self-government, land claims, education, health, cultural facilities, and police/fire). Analysis found a strong linear relation between suicide risk and number of factors present. For example, when there were zero cultural factors present in a community, the rate was 137.5

suicides per 100,000; however, as the total number of cultural continuity markers increased in a community, the number of youth suicides decreased significantly ($p < .002$; Chandler & Lalonde, 1998). Moreover, engaging in traditional practices have been shown to offer a diversion from substance misuse that is associated with a higher risk of suicidal behaviour (Herman-Stahl et al., 2003; Hill, 2009). For example, Indigenous peoples with a low orientation towards traditional cultural activities were 4.4 times as likely be heavy drinkers than those that had a greater orientation towards their culture (Herman-Shal et al., 2003). Given the significant relationship that cultural engagement appears to represent in mitigating suicide risk in Indigenous populations, it is believed that engaging with traditional activities will act as a buffer against suicidal ideation in the present study.

Risk Factors for Suicidal ideation in Indigenous Peoples

As this study is employing a TES approach to research, the examination of risk factors believed to be associated with an increased rate of suicidal ideation in Indigenous peoples is critical to providing a more nuanced understanding concerning this major mental health crisis. In particular, by incorporating a Western approach to research within the present study, systemic issues thought to contribute to ill health (e.g., risk factors) in Indigenous peoples can be examined adjacent to a strength-based approach.

Alcohol Use

Alcohol is one of the leading substances that has been found to contribute to suicidal behaviour in the general population (Rizk et al., 2021; Pompili et al., 2010). For example, alcohol use increases the likelihood of suicidal ideation, suicide attempts, and death by suicide by up to 65% (Amiri & Behnezhad, 2020). Heavy consumption of alcohol is thought to reduce people's inhibitions, increases their impulsivity, and serves to intensify negative emotions

(Kirmayer et al., 2007; Pompili et al., 2010). Unsurprisingly, drinking to cope and using alcohol to escape or avoid difficult emotions has also been found to be associated with those experiencing greater levels of depressive symptoms (Holahan et al., 201; Stewart et al., 2011). Among Indigenous peoples, the misuse of alcohol has been recognized as a major contributing factor of suicide, making it a serious health concern (Kirmayer et al., 2000; Kirmayer et al., 2007; Stewart et al., 2011;) The prevalence rates of heavy drinking for those 12 years and older was 35%, 30%, and 39% (off-reserve First Nations, Inuit, and Métis respectively; Kelly-Scott & Smith, 2015). In contrast, the rates in non-Indigenous peoples, 15 years and older, have remained fairly consistent at 23% (Government of Canada, 2020). The structural and systematic disadvantages that Indigenous peoples in Canada experience have resulted in these disproportionate rates of substance use for these particular communities (Urbanoski, 2017). Moreover, Adrian et al. (1990) points out that factors related to general economic conditions need to also be considered. For instance, alcohol consumption has been found to be associated with social factors including geographic location, income, employment status, and size of household (MacMillan et al., 1996; Adrian et al., 1990). By examining the frequency of alcohol consumption during the last 12-months and its relationship with suicidal ideation, this study aims to better understand the impact that alcohol has on Indigenous peoples and their respective communities.

Substance Use

Similar to problems with alcohol, the misuse of drugs has adversely affected Indigenous peoples in Canada (Cao et al., 2018; Allan & Smylie, 2015; Currie et al., 2013; Phillips et al., 2014;). The most recent statistics by the Government of Canada (2019) report that 3% of the population used at least one of six illegal drugs (cocaine/crack, speed/methamphetamine, ecstasy,

hallucinogens, heroin, salvia) during the last year. While there is a gap in the literature about the prevalence rates of illegal drug use among Indigenous peoples, what is known is that drug use disorders are two to four times greater for Indigenous peoples in North America than for those that are non-Indigenous (Currie et al., 2013; Currie & Wild, 2012; Elton-Marshall & Leatherdale, 2011; Wardman et al., 2002). Much research suggests drug misuse contributes to suicide (Kumar & Tjepkema, 2019; Kral, 2016; Katz et al., 2006; Verona et al., 2004). Additionally, data from the province of British Columbia show that First Nations are three times more likely to die from an overdose than non-First Nations people (Ubanoski, 2017; First Nations Health Authority, 2017; Milloy et al., 2010). This is concerning given that an independent association has been found between ever having had a drug overdose with suicide attempt (For the Cedar Project Partnership et al., 2009). The use of substances can be the result of many factors, including having a mental health disorder, experiencing economic inequality, having a lower quality of life, experiencing poor health status, a lack of access to quality health care, and suppression and loss of cultural traditions (Cao et al., 2018; Newbold, 1998, Currie, 1994; Hill, 2009; Klyde, 1994). As will be done with alcohol consumption, analysis of drug use during the last 12 months and its relationship with suicidal behaviours will be examined. This is expected to provide a more robust measure of the risks that drug misuse poses for First Nations, Inuit, and Métis peoples.

Depression

Research has consistently shown that a major risk factor for suicide is having a mental illness (Katz et al., 2006; Brådvik, 2008; Too et al., 2019; Weir & Wallington, 2001; Mościcki, 1997; Statistics Canada, 2017b). In particular, depression is known to be one of the most common disorders for people that die by suicide, with approximately 60% suffering from this

condition (Brådvik, 2008; Statistics Canada, 2017b). Moreover, depression is also related to suicidal ideation (Brådvik, 2008; Katz et al., 2006; Gould et al, 1998; Kessler et al, 1999). It is known that a significant majority of Indigenous peoples in Canada suffer from mental health disorders (Firestone et al.., 2015). This is reflected by the most recent statistics pertaining to mental health indicating that a greater number of Indigenous people report having fair or poor mental health (38%) in comparison to non-Indigenous peoples (23%; Arriagada et al., 2020). The rates of poor mental health are consistently found to be greater in Indigenous peoples due to various factors including the intergenerational effects of the residential school system, gaps in mental health services, marginalisation, and social determinants of health like poverty, unemployment, housing, and low levels of social support (Arriagada et al., 2020; King et al., 2009; Matheson et al., 2019; Anderson, 2015; Gunnell et al., 2004). Unfortunately, there is a paucity of research examining both depression and suicide in adult Indigenous populations; alternatively, most literature tends to focus primarily on youth and children. For example, Mota and colleagues (2012) found that depression was significantly associated with an increased likelihood of suicide in an adolescent sample whereas Livingston et al. (2019) underscored the overall greater risk that Indigenous youth face when it comes to depressive syndromes and suicide. Given that depression has been found in the general population to be the most pervasive mental disorder associated with suicide, it is a reasonable assumption given an Indigenous sample that this would also be the case.

Anxiety

Anxiety is another mental illness that was found to be associated with increased suicidal behaviour in a representative longitudinal epidemiological survey conducted in the United States, which included a subsample of American Indians and Alaska Natives (AI/AN) (Nepon et al.,

2010). However, of anxiety disorders, only posttraumatic stress disorder (PTSD) is known to be independently associated with death by suicide (Katz et al., 2006; Kirmayer et al., 2007; Weissman et al., 1989; Bentley et al., 2016). While many other anxiety disorders, including generalized anxiety disorder (GAD), social anxiety disorder, obsessive-compulsive disorder (OCD), and somatic symptom disorders, etc.), are not direct risk factors for suicide, when they share comorbidity with other anxiety and mental disorders, the risk of suicide increases significantly (Sareen et al., 2005a; Sareen et al., 2005b; Bentley et al., 2016). Furthermore, additional factors that are thought to explain some of the risks between anxiety and suicide include substance use disorders (e.g., alcohol), childhood trauma, personality factors, poor social support, and experience of traumatic events (Sareen et al., 2005b; Molnar et al., 2001a; Molnar et al., 2001b; Kirmayer et al., 2007; Warshaw et al., 2000). Arriagada et al. (2020) report that in terms of stress and anxiety, 40% of Indigenous participants described their daily lives as highly stressful (e.g., “quite stressful” or “extremely stressful”), and 41% reported experiencing moderate to severe anxiety. In contrast, non-Indigenous participants reported 27% and 25%, respectively. Unfortunately, most of the research on anxiety is derived from studies conducted with mixed samples, resulting in gaps in the literature on what contributes explicitly to anxiety in Indigenous peoples (Bellamy & Hardy, 2015). Indigenous scholars have highlighted that this results in significant limitations with publishing in the context of the Western system to accurately understand the breadth and depth of Indigenous knowledge (Bellamy & Hardy, 2015; Battiste, 2002). The investigation of anxiety as a risk factor for suicidal behaviours in the present study will fill this critical gap that exists in the research.

Housing

The physical environments in which people live is a crucial determinant of health (Reading & Wien, 2009). Adequate housing for instance is important for an individual's overall well-being and is linked with a higher quality of life (Statistics Canada, 2022; World Health Organization, 2018). The Indigenous population in Canada is much more likely than the general population to experience over-crowding in their homes, resulting in negative impacts on both their health and well-being (Health Council of Canada, 2005). For example, over-crowding has been found to contribute to a greater likelihood of transmitting infectious diseases, increased respiratory infections, mental health issues, and greater instances of family conflicts (Reading & Wien, 2009; Canada Mortgage and Housing Corporation, 2004; Inuit Tapiriit Kanatami [ITK], 2014; Young & Mollins, 1996). Moreover, the stressors that over-crowding can have on the residents of the home can manifest as learning difficulties in adolescents and substance abuse in adults (Reading & Wien, 2009; Canada Mortgage and Housing Corporation, 2004). The problem of over-crowding is only made worse by poor housing conditions that many First Nations living on reserves and Inuit communities experience (Statistics Canada, 2022; Bleakney & Melvin, 2022; Reading & Wien, 2009). The effect of poor housing conditions is illustrated in a study by Kovesi and colleagues (2022) in which they found an association between poor housing conditions and respiratory problems due to endotoxins in First Nations children living in Northern Ontario. While data from the 2016 Census of Population points to an overall improvement in housing conditions for Indigenous peoples, they are still more likely to live in deficient housing in comparison to non-Indigenous people (Statistics Canada, 2022). It is reported by Statistics Canada (2022) that 17.1% of Indigenous peoples occupied housing that was inadequate. For First Nations, 21.4% lived in over-crowded homes while the Inuit saw the

greatest rate of over-crowded homes at 40.1% (Statistics Canada, 2022). Interestingly, among the three Indigenous groups in Canada, the Métis had the lowest rate of over-crowding at 7.9% (Statistics Canada, 2022). It is believed that living in cramped housing puts the occupants at a greater risk of suicide due to serious conflicts that can arise between members of the household (Laliberté & Tousignant, 2009). This is further complicated by the fact that northern communities and geographically isolated locations leave few options to those seeking shelter from any form of violence and abuse that may be occurring in the home (Laliberté & Tousignant, 2009; Kirmayer, 1994)

Residential School System

A controversial government strategy that was made possible by the Indian Act of 1876 was the assimilation of Indigenous peoples through what is known as the residential school system (Cao et al., 2018). In particular, children were forcibly removed from their parents and communities and placed in residential schools away from their families (LaFrance & Collins, 2003). This in effect completely isolated them from the influence of their families, traditions and cultures (Hossain & Lamb, 2020; Kirmayer et al. 2000; Chrisjohn et al. 1997). It is thought that at least 150,000 Indigenous students passed through residential schools between 1883 to the late 1990s (Truth and Reconciliation Commission of Canada [TRC], 2015a). While it was stated that these schools were to provide education to Indigenous children, it was generally considered to be inadequate (Cao et al., 2018; Milloy, 1999; Aguiar, 2015). Instead, there was an emphasis on teaching children to do menial labour, leaving them poorly equipped to do any work beyond this once they left the schools (Milloy, 1999; Aguiar, 2015). This inadequate attainment of education resulted in them and following generations to experience a legacy of poverty and ongoing social and economic marginalization (Aguiar, 2015; Brody, 1977; Smart & Ogborne, 1986; Whitehead

& Hayes, 1988). The residential school system virtually eroded all aspects of well-being for Indigenous peoples, resulting in a fractured family structure; loss of cultural identity; loss of critical parenting skills; and low self-esteem (Aguiar, 2015; LaFrance & Collins, 2003; Rice & Snyder, 2008). The intense pain and suffering that has been transmitted through the generations in the form of trauma continues to express itself through disproportionate rates of mental illness, addictions, and self-destructive behaviour in Indigenous peoples (Aguiar, 2015; Bombay et al., 2009). Prior attendance at these school and the intergenerational trauma that has resulted have been found to be associated with suicide in all Indigenous peoples in Canada (Aguiar, 2015; Fraser et al., 2015; Kumar & Tjepkema, 2019).

Summary of the Problem

Indigenous peoples in Canada continue to collectively experience higher rates of suicide and suicidal behaviours (i.e., suicidal ideation) than non-Indigenous peoples. These increased rates of suicidal behaviours are primarily understood to be the result of the severe trauma experienced by First Nations, Inuit, and Métis peoples due to colonization (Elias et al., 2012). Moreover, various supplementary protective and risk factors in the literature are believed to influence the likelihood of suicidal behaviour within this population. Using a Two-Eyed Seeing approach to research, this study aimed to gain a broader understanding of these factors and the roles they play in First Nations, Métis, and Inuit people. This vital information can then inform future research investigating suicidal behaviours in these unique groups and the development of culturally specific suicide prevention programs.

Objectives and Hypotheses

This project used the 2017 APS to investigate factors resulting from colonization that are believed to influence suicidal ideation in Indigenous peoples in Canada. There were two objectives and two specific hypotheses:

1. To examine the prevalence rates of suicidal ideation in First Nations, Inuit, and Métis peoples.
2. To investigate the unique protective and risk factors for suicidal ideation among First Nations, Inuit, and Métis peoples.

Objective 1 examined each Indigenous group (e.g., First Nations, Inuit, and Métis) separately to determine current prevalence rates of suicidal ideation in these communities. Doing so provided up-to-date statistical information for suicidal behaviour currently lacking or absent in the literature.

Objective 2 examined the association between protective and risk factors for suicidal ideation among First Nation, Inuit and Métis peoples: (H1) it was hypothesized that cultural protective factors (i.e., cultural activities, sense of belonging, and language) would be negatively associated with suicidal ideation for First Nations, Inuit, and Métis peoples. (H2) It was hypothesized that risk factors (i.e., alcohol and drug misuse, presence of a mood or anxiety disorder, poor physical health status, low income, housing, and residential school experience) would be positively associated with suicidal ideation for First Nations, Inuit, and Métis peoples.

METHODS

Respondents

This project used the Aboriginal Peoples Survey (APS), a national survey on the social and economic conditions of First Nations, Inuit, and Métis people in Canada (Vongdara et al., 2018) to examine suicidal ideation in these three groups separately. The APS is a postcensal survey that follows the Census of Population that is conducted every five years to gather information on core indicators in areas such as labour, health, and education for Indigenous peoples[1] in Canada. Data collection for the 2017 APS was conducted via telephone and computer interviews from January 16 to August 15, 2017, which resulted in a response rate of 76%, with approximately 32,330 respondents completing the survey. Of the 32,330 respondents, 8,380 non-Indigenous respondents were excluded from the 2017 APS database, bringing the total number of Indigenous respondents to 24,220 (Vongdara et al., 2018). The removal of respondents who reported mixed Indigenous descent were also excluded from the sample resulting in the final sample size of 20,660 respondents.

The inclusion of respondents is based on those aged 15 and over that reported either Indigenous Identity or Indigenous ancestry to the 2016 Census questionnaire. First Nations living on-reserve, or in settlements, and specific First Nations communities in the Yukon and Northwest Territories (NWT) were excluded from the survey. Additionally, those living outside

[1] Within this thesis, the term Indigenous Peoples will be used to collectively identify a variety of original peoples of North America and their descendants that were previously referred to by Statistics Canada as "Aboriginal".

Canada or in an institution at the time of the survey or not 15 years of age were excluded from the sample (Vongdara et al., 2018).

2017 APS Survey Data Collection Procedures

The 2017 APS has questions designed for a Computer Assisted Interviewing (CAI) environment in order to increase the quality of data collection. A computer-assisted interview questionnaire was developed for two different methods of collecting data: A computerized Assisted Telephone Interview (CATI) and a Computer Assisted Personal Interview (CAPI). The primary method of collection for residences in the provinces was through CATI, while CAPI was utilized for certain parts of the Yukon, Northwest Territories (excluding parts of Yellowknife), and all of the Inuit regions. Respondents were interviewed in either English or French for all regions, except for respondents in Inuit regions, in which the questionnaire was translated as a paper copy into Inuktitut and Inuinnaqtun. For individuals between the ages of 15 to 17, prior approval of the individual's parents or guardians was provided before interviews were conducted directly with the youth. When approval was not provided, the data was collected through a proxy from the parent or guardian. Additionally, proxy interviews were also appropriate in situations when the selected individuals. For a more detailed description of the APS design and sampling procedure, refer to the APS 2017: Concepts and Methods Guide (Vongdara et al, 2018).

Variables of Interest

The 2017 APS contains approximately 240 derived variables, created by combining items on the questionnaire. An additional 230 variables from the 2016 Census were included and linked to the final APS file (Vongdara et al, 2018). Demographic variables were reported to describe the sample, including age, sex, and self-reported Indigenous group membership. For the current study, two dichotomous dependent variables were used as indicators of suicidal ideation,

three constructs were examined as protective factors, and nine constructs were examined as risk factors. For a list of variables and associated codes, see Appendix A.

Suicidal Ideation

The outcome variable of interest in this study was suicidal ideation, which was operationalized as present within the last 12 months or over the lifetime. The variable measured two variables consisting of questions related to suicide contemplation. The first variable for suicidal ideation was if respondents have ever in their lifetime contemplated suicide with response options recoded to (No = 0, Yes = 1). The second variable for suicidal ideation was suicidal ideation during the last 12 months, with response options recoded to (No = 0, Yes = 1).

Protective Factors

Three cultural factors are associated with increased psychological well-being in Indigenous peoples, including knowledge of an Indigenous language (McIvor et al., 2009), experiencing a sense of belonging (Chantelle et al., 2007), and engaging with cultural activities (Kirmayer et al., 2003). These three constructs were assessed using single APS variables. The dichotomous APS variable for language examined respondents' abilities to understand or speak an Indigenous language and was coded as (No = 0) and (Yes = 1). Additional variables were used to describe the context in which the individual reports speaking an Indigenous language to provide context on participant'' self-reported language use.

Sense of belonging was analyzed using four ordinal variables to measure respondents' perceived sense of belonging to their Indigenous culture. Each variable was recoded on a 3-point Likert scale with responses ranging from 0 ("Neither agree nor Disagree"), 1 ("Strongly disagree/Disagree") and 3 ("Strongly agree/Agree"). Variable 1 examined the interest of respondents in finding out about Indigenous history, traditions, and culture. Variable 2 explored

if respondents were active in Indigenous group events and activities. Variable 3 examined if respondents felt good about their own Indigenous identity. Variable 4 investigated if respondents experience a sense of belonging to their Indigenous group.

Engaging with cultural activities was analyzed as a dichotomous composite variable (0 = Absent) and (1 = Present) derived from four APS variables and coded as present if the respondent indicated they engaged in any of the four cultural activities in the last 12 months. These activities include (1) hunting/fishing/gathering during the last 12 months, (2) gathering wild plants during the last 12 months, (3) making clothing/footwear during the last 12 months, and (4) making arts/crafts in the last 12 months.

Risk Factors

Based on a review of the literature, ten factors appear to be associated with psychological distress in Indigenous peoples, including alcohol misuse (May et al., 2002), drug misuse (Firestone et al., 2015), depression (Mota et al., 2012), anxiety (Kumar & Tjepkema, 2019), poor general health (MacMillan et al., 1996), low income (Hajizadeh et al., 2018), housing (Reading & Wien, 2009), and residential school experience (Hackett et al., 2016).

For the current study, alcohol misuse consisted of one categorical APS variable examining the frequency of alcohol consumption in the last 12 months, with responses ranging from 1 (“Less than once a month”) to 7 (“Every day”). Drug misuse consisted of one APS dichotomous variable examining drug use in the last 12 months, excluding marijuana, and recoded as 0 (“No, did not use drugs in the last 12-months”) and 1 (“Yes, used drugs in the last 12 months”). This is an existing APS composite variable derived from two other categorical variables in the dataset – specifically, the frequency of street and prescription drugs used in the last 12 months.

The construct for mental health included three variables. The first was a categorical variable that examined mental health status (self-perceived). The variable assessed the respondent's mental health status based on their judgement, with responses ranging from 0 ("Poor") to 4 ("Excellent"), with a higher score indicating a positive perceived mental health status. The supplementary two APS variables are dichotomous and examine if the respondent had a mood or anxiety disorder and recoded as (No = 0) and (Yes = 1).

Poor general health was examined using one APS variable that assesses health status (self-perceived). The health status variable provided information on the respondent's general health status based on their judgement, with responses ranging from 0 ("Poor") to 4 ("Excellent"), with a higher score indicating a positive perceived health status.

Low income was analyzed using two categorical APS variables. The first categorical variable is for respondents whose total personal income for the year ending December 31, 2016, was less than $30,000. It included responses ranging from 1 ("Less than $5,000") to 6 ("$25,000 to less than $30,000). The second categorical variable is for respondents whose total personal income for the year ending December 31 was $30,00 or more. It included responses ranging from 1 ("$30,000 to less than $40,000) to 8 ("$100,000 and over).

Housing consisted of one continuous APS variable coded on a 5-point Likert scale ranging from 1 ("Very satisfied") to 5 ("Very dissatisfied").

Residential school experience consists of two dichotomous variables recoded as (No = 0) and (Yes = 1). The first dichotomous APS variable examined if the respondent attended residential school. The second dichotomous variable was a composite variable derived from collapsing four dichotomous APS variables, including (1) parents attended residential school, (2)

grandparents attended residential school, (3) current spouse/partner attended residential school, and (4) other relatives attended residential school.

Secondary Data Analysis

This project used secondary data collected by Statistics Canada, which takes necessary steps to remove all personal identifier information from files, such as names, addresses and phone numbers that could be used to identify particular individuals (Vondara et al., 2017). The project was submitted to Statistics Canada to gain access to the Statistics Canada confidential data (i.e., analytical file) for the 2017 APS. Data analysis occurred at the two Research Data Centre (RDC) sites located on the University of Manitoba campuses to ensure data security.

Secondary data analysis ethics approval was sought by the Research Ethics Board (REB) at the University of Manitoba's Fort Garry campus and was granted on April 4, 2024.

Data Analyses

Statistics Canada executes a series of data operations when performing data cleaning. For a comprehensive description of the data processing procedures, refer to the APS 2017: Concepts and Methods Guide (Vongdara et al., 2018). For the present study, prior to conducting analyses on variables of interest in the APS survey, they were reviewed for skip patterns and missing data. Data resulting from branching (i.e., skip patterns) is categorized into three non-response options: Valid Skip, Don't Know, and Refusal. Response options for missing data include: Not Stated. These four response options were collapsed and recoded into a variable labelled "Missing."

As the data used is the analytic file and only accessible at the RDC, strict protocols were in place to ensure that confidential data is appropriately managed. This included data to be properly vetted by a Statistics Canada analyst before it was released. Concerning missing data for the "missing" variable that were created, if it were found to have less than ten cases, it did not

meet the requirement for release by the RDC. If there were more than ten cases, they were assessed as Missing Completely at Random (MCAR) or ignorable missingness, which assumed that the missingness of the data was independent of both the observed and the unobserved data (Li, 2013; Mirzaei et al., 2022). If there were < 5% missing data, then the missing data was negligible and listwise deletion could be used, resulting in the entire case that contained any missing data being removed from the analysis (Mirzaei et al., 2022). Insignificant results for missing data were classified as MCAR, and listwise deletion or imputation/likelihood methods were used (Mirzaei et al., 2022). However, the results for missing significant data could not be classified as MCAR, and the data might have been classified as Missing at Random (MAR) or Missing Not at Random (MNAR) (Mirzaei et al., 2022).

Operational Hypotheses

Stata 17 software (StataCorp, 2021) was used to perform statistical analyses on specifically identified variables in the dataset. Descriptive statistics (means, standard deviations, and frequencies) of the total sample and for each Indigenous group (i.e., First Nations, Métis, Inuit) were reported for sociodemographic variables (e.g., age, marital status, sex of respondents), in addition to all other variables of interest. To examine differences across Indigenous groups and suicidal ideation (during the lifetime and the last 12 months), four 3x2 cross-tabulation analyses were performed. Additional exploratory analyses of the similarities and differences of the three Indigenous groups' protective and risk factors with suicidal attempts and ideation will be examined using cross-tabulations, and simple logistic and multiple logistic regressions.

The logistic regression analyses examined potential multicollinearity by performing correlations on all predictor variables (e.g., dichotomous and continuous). For dichotomous

variables, Spearman's Rank correlations were utilized (Schober et al., 2018), whereas for continuous variables, Pearson's correlations will be implemented (Schober et al., 2018). If ($R2$ = 0.8 to 0.9), multicollinearity is present (Kim, 2019b). A Box-Tidwell test was used to test a linear relationship between any continuous variables and the logit transformation of the dependent variable. Any continuous variables (p = > .05) were non-significant, fulfilling this assumption. To examine for any extreme outliers, the least likely command was used (Freese, 2022).

Assessing normality for the following project was not anticipated to be an issue given the large sample size (i.e., > 500 respondents). Ghasemi & Zahediasl. (2012) indicates that for a large sample size, the violation of the normality assumption should not pose a problem. Another benefit of having a large sample size is the reduced likelihood of committing a type I or type II error (Banerjee et al., 2009). This is because a larger sample size is similar in magnitude to the population parameters, thus decreasing the risk of a type I or type II errors occurring (Sedgwick, 2014).

Objective 1. The examination of prevalence rates of suicidal ideation in First Nations, Inuit, and Métis peoples was examined using cross-tabulation with Pearson chi-square analyses for each Indigenous group and sociodemographic variables including age and gender.

Objective 2.

Hypotheses 1. It was hypothesized that a statistically significant negative association would exist between each protective factor and suicidal ideation. Examination of this association was tested using chi-square analyses on two nominal (e.g., cultural activities and language) variables and one ordinal predictor variable (e.g., sense of belonging) in predicting the dichotomous outcome variables of suicidal ideation. Logistic regression examined the

association of all three predictor variables in predicting the dichotomous outcome variable of suicidal ideation.

Hypotheses 2. It was hypothesized that there would be a statistically significant positive association between each risk factor and suicidal ideation. Chi-square analyses examined five dichotomous predictor variables (e.g., drug misuse, mood disorders, anxiety disorders, limited access to mental health services, and residential school system experience) and the association between the dichotomous outcome variables of suicidal ideation. Logistic regression was utilized to examine the association of five ordinal predictor variables (e.g., alcohol misuse, mental health (self-reported), general health (self-reported), income, and housing) in predicting the dichotomous outcome variable of suicidal ideation.

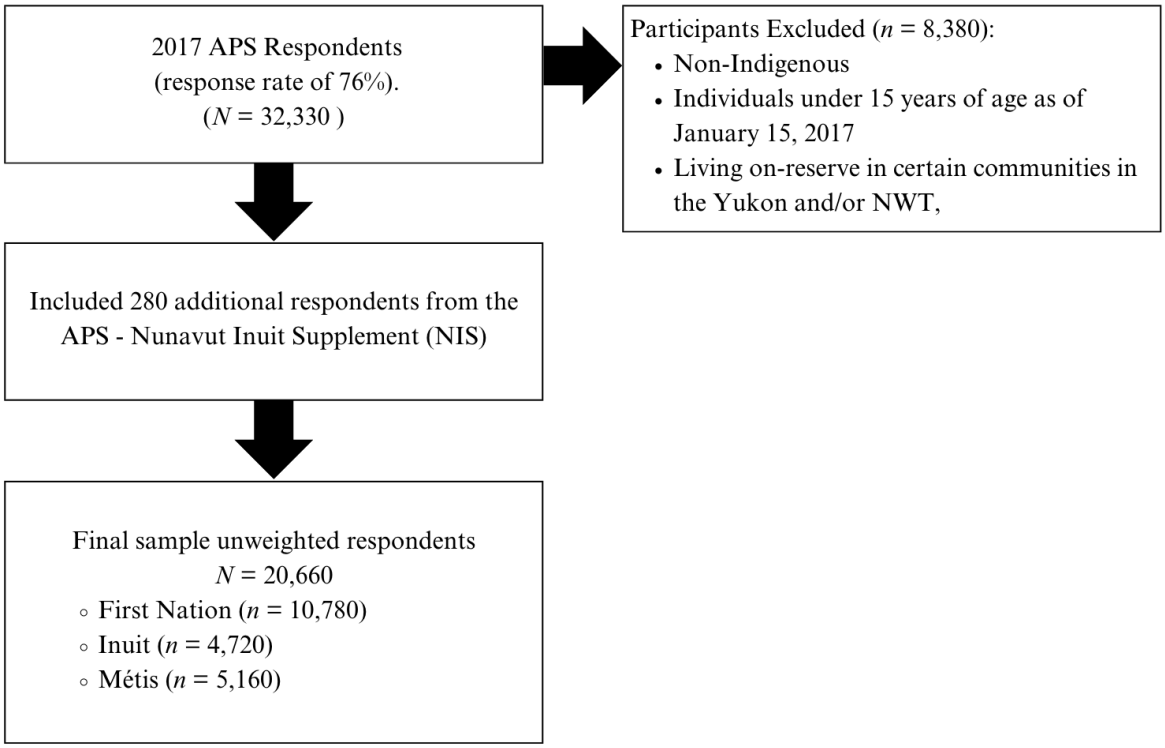
RESULTS

Respondent Flow

Approximately 32,330 respondents completed the 2017 APS, and 8,380 (25.9%) respondents were excluded from the sample due to ancestry, age, or residing on reserve or within certain communities. An additional 280 respondents were included from the APS – Nunavut Inuit Supplement (NIS). The sample was further reduced by excluding respondents who reported multiple Indigenous ancestries, resulting in a final sample of 20,660 respondents. The flow of respondents can be found in Figure 1.

Figure 1.

Participant flow



Descriptive Statistics

All Indigenous Groups

In the 2017 APS sample, there were approximately 841,910 weighted respondents, consisting of 47% (*n* = 395,460) males and 53% (*n* = 446,450) females. Of those who identified as being part of a single Indigenous identity (*N* = 841,910), 60.9% (*n* = 513,290) identified as First Nations with a mean age of 40.8 years (95% CI [40.4, 41.3]), 4.9% (*n* = 41,320) as Inuit with a mean age of 37.7 years (95% CI [37.1, 38.23]), and 34.1% (*n* = 287,300) as Métis with a mean age of 41.7 years (95% CI [41.1, 42.3]). The sex distribution among First Nations respondents was 53.8% female (*n* = 276,500) and 46.1% male (*n* = 236,790). For Inuit respondents, 52.3% (*n* = 21,650) were female and 47.6% (*n* = 19,680) were male, while among Métis respondents, 51.6% (*n* = 148,300) were female and 48.3% (*n* = 139,000) were male. Nearly half of all respondents 51.5% (*n* = 434,060) reported never being married, 31.9% (*n* = 269,160) were married, 3.8% (*n* = 32,470) were separated, 9.5% (*n* = 80,520) were divorced, and 3% (*n* = 25,700) were widowed. Refer to Table 1 for a breakdown of marital status by Indigenous ancestry. Refer to Table 1 for a breakdown of respondents by geographic region and Indigenous group.

Table 1. Demographic Characteristics
(*N* = 841,910)

	All Groups *N* = 841,910			First Nations *n* = 513,290			Inuit *n* = 41,310			Métis *n* = 287,300		
Variable	Pop.	*n*	%	Pop.	*n*	%	Pop.	*n*	%	Pop.	*n*	%
Age(s)												
15 – 24	841,910	186,960	22.2	-	116,430	22.6	-	10,870	26.3	-	59,660	20.7
25 – 34	841,910	156,600	18.6	-	94,400	18.3	-	9,400	22.7	-	52,800	18.3
35 – 44	841,910	135,420	16	-	82,290	16	-	7,350	17.7	-	45,780	15.9
45 – 54	841,910	159,300	18.9	-	98,630	19.2	-	6,670	16.1	-	54,000	18.7
55 – 64	841,910	124,490	14.7	-	75,330	14.6	-	4,070	9.8	-	45,100	15.6
65 +	841,910	79,130	9.3	-	46,220	9	-	2,960	7.1	-	29,960	10.4
Sex												
Female	841,910	446,450	53	-	276,500	53.8	-	148,300	51.6	-	21,650	52.3
Male	841,910	395,460	47	-	236,790	46.1	-	139,000	51.6	-	19,670	47.6
Relationship Status												
Never Married	841,910	434,060	51.5	-	277,540	54	-	27,060	65.5	-	129,460	51.6
Married	841,910	269,160	31.9	-	149,630	29.1	-	10,240	24.7	-	109,290	38
Separated	841,910	32,470	3.8	-	21,470	4.1	-	1,250	3	-	9,760	3.3
Divorced	841,910	80,520	9.5	-	48,710	9.4	-	1,610	3.8	-	30,210	10.5
Widowed	841,910	25,700	3	-	15,950	3.1	-	1,160	2.8	-	8,590	2.9
Geographic Region												
Maritimes	841,910	74,290	8.8	-	48,260	9.4	-	5,880	14.2	-	20,150	7
Central Canada	841,910	307,820	36.5	-	208,860	40.6	-	10,660	25.8	-	88,310	30.7
Western Canada	841,910	293,350	34.8	-	157,970	30.7	-	1,950	4.7	-	133,430	46.4
British Columbia	841,910	136,390	16.2	-	91,390	17.8	-	960	2.3	-	44,050	15.3
Territories	841,910	30,060	3.5	-	6,820	1.3	-	21,890	52.9	-	1,350	< .001

Dependent Variables

Prevalence of Suicidal Ideation

The frequency of weighted respondents who endorsed suicidal ideation during their lifetime was 18.9% (*n* = 151,580). When further subdivided by Indigenous groups, 20% (*n* = 97,860) of First Nations, 22.7% (*n* = 8,360) of Inuit, and 16.4% (*n* = 45,360) of Métis endorsed suicidal ideation during their lifetime. The frequency of weighted respondents who endorsed suicidal ideation during the last 12 months was 5.6% (*n* = 45,010). By Indigenous group, 6% (*n* = 29,820) First Nations, 6.6% (*n* = 2,420) Inuit, and 4.6% (*n* = 12,770) of Métis endorsed experiencing suicidal ideation during the last 12 months. Refer to Table 2 for a breakdown of suicidal ideation lifetime and last 12 months by Indigenous groups.

In terms of sex differences for those who have considered suicide during their lifetime, the prevalence rate for females is approximately 22.5% (*n* = 96,700) and for males is 14.7% (*n* = 54,810). For those who have considered suicide during the last 12 months, 6.8% (*n* = 29,550) females endorsed suicidal ideation and 4.1% (*n* = 15,460) males.

Table 2. Suicidal Ideation Lifetime & 12-months

	All Indigenous Groups			First Nations			Inuit			Métis		
	Pop.	*n*	%	Pop.	*n*	%	Pop.	*n*	%	Pop.	*n*	%
SI Lifetime	801,210	151,580	18.9	488,190	97,860	20	36,670	8,360	22.7	276,350	45,360	16.4
SI 12-months	801,060	45,010	5.6	488,050	29,820	6	36,660	2,420	6.6	276,350	12,770	4.6

Protective Factors

It was hypothesized that a statistically significant negative association would exist between each protective factor and suicidal ideation. Examination of this association was tested using chi-square analyses on two dichotomous predictor variables (e.g., cultural activities and

language) in predicting the dichotomous outcome variables of suicidal ideation. Logistic regression would examine the association of one of the ordinal predictor variables (e.g., sense of belonging) in predicting the dichotomous outcome variable of suicidal ideation.

Language

For language, 38.4% (n = 318,200) of respondents indicated being able to understand or speak an Indigenous language. Of those, 44% (*n* = 223,200) First Nations, 82.8% (*n* = 33,870) Inuit, and 21.7% (*n* = 61,130) Métis endorsed being able to understand or speak an Indigenous language.

As shown in Table 4, a series of logistic regression analysis models were used to analyze the relationship between understanding or speaking an Indigenous language and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents. It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the lifetime was increased for those who understand or speak an Indigenous language (First Nations: OR = 1.23, $p = .007$, 95% CI [1.05, 1.44]; Inuit: OR = 1.56, $p = .005$, 95% CI [1.14, 2.13]; Métis: OR = 1.29, $p = .029$, 95% CI [1.02, 1.64]).

Table 3. Protective Factors

	All Groups N = 841,910			First Nations n = 513,290			Inuit n = 41,310			Métis n = 287,300		
Variable	Pop.	n	%	Pop.	n	%	Pop.	n	%	Pop.	n	%
Language	828,120	318,200	38.4	506,490	223,200	44	40,880	33,870	82.8	280,750	61,130	21.7
Sense of Belonging												
Find out more about Indigenous history												
Strongly agree/Agree	805,040	601,350	74.6	490,430	369,520	75.3	36,890	28,700	77.7	277,720	203,130	73.1
Neither Agree nor Disagree	805,040	175,930	21.8	490,430	103,160	21	36,890	5,880	15.9	277,720	66,900	24
Disagree/Strongly disagree	805,040	27,760	3.4	490,430	17,760	3.6	36,890	2,310	6.2	277,720	7,690	2.7
Active in Indigenous group events or activities												
Strongly agree/Agree	804,310	274,370	34.1	489,706	183,870	37.5	36,860	21,740	58.9	277,750	68,750	24.7
Neither Agree nor Disagree	804,310	480,380	59.7	489,706	276,840	56.5	36,860	12,080	32.7	277,750	191,450	68.9
Disagree/Strongly disagree	804,310	49,570	6.1	489,706	28,990	5.9	36,860	3,030	8.2	277,750	17,550	6.3
Feel good about own Indigenous identity												
Strongly agree/Agree	806,170	744,000	92.2	490,610	451,110	91.9	37,000	35,730	96.5	278,560	257,150	92.3
Neither Agree nor Disagree	806,170	31,390	3.8	490,610	21,830	4.4	37,000	480	1.2	278,560	9,090	3.2
Disagree/Strongly disagree	806,170	30,780	3.8	490,610	17,680	3.6	37,000	780	2.1	278,560	12,320	4.4
Sense of belonging to own Indigenous group												
Strongly agree/Agree	803,020	476,110	59.2	488,720	303,650	62.1	36,980	31,550	85.3	277,320	140,920	50.8

		Neither Agree nor Disagree	803,020	245,450	30.5	488,720	137,240	28	36,980	3,740	10.1	277,320	104,470	37.6
		Disagree/Strongly disagree	803,020	81,460	10.1	488,720	47,830	9.7	36,980	1,700	4.5	277,320	31,930	11.5
Cultural Activities														
	Hunting/Fishing/Trapping		841,800	298,580	35.4	513,270	172,790	33.6	41,260	23,460	56.8	287,270	102,330	35.6
	Gathered wild plants		841,420	244,310	29	513,100	156,150	30.4	41,220	17,380	42.1	287,100	70,780	24.6
	Made Clothing/Footwear		841,760	79,050	9.3	513,190	48,580	9.4	41,280	11,610	28.1	287,300	18,860	6.5
	Made Arts/Crafts		841,390	208,100	24.7	512,790	135,560	26.4	41,310	7,400	17.9	287,300	65,140	22.7
Engagement with Cultural Activities														
	No engagement		840,690	336,490	40	512,480	207,600	40.5	41,150	9,180	22.3	287,070	119,710	41.7
	1 Activity		840,690	268,370	31.9	512,480	156,380	30.5	41,150	12,940	31.4	287,070	99,060	34.5
	2 Activities		840,690	160,970	19.1	512,480	99,920	19.4	41,150	11,670	28.3	287,070	49,390	17.2
	3 Activities		840,690	61,050	7.2	512,480	38,300	7.4	41,150	6,130	14.8	287,070	16,610	5.7
	4 Activities		840,690	13,820	1.6	512,480	10,280	2	41,150	1,240	3	287,070	2,300	< 1

Table 4. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents who Understand or Speak an Indigenous Language						
Variable	Odds Ratio	z	P > | z |	std.err.	95% Confidence Interval	
Model 1 – First Nations						
Understand/speak language	**1.23**	**2.68**	**.007**	**.09**	**1.05**	**1.44**
Intercept	**.22**	**-28.71**	**.001**	**.01**	**.20**	**.25**
Model Wald $\chi^2 = 7.18$, $p = < .001$, $N = 488{,}120$						
Model 2 – Inuit						
Understand/speak language	**1.56**	**2.78**	**.005**	**.25**	**1.14**	**2.13**
Intercept	**.20**	**-10.53**	**.001**	**.03**	**.14**	**.27**
Model Wald $\chi^2 = 7.72$, $p = 0.005$, $N = 36{,}510$						
Model 3 – Métis						
Understand/speak language	**1.29**	**2.19**	**.029**	**.15**	**1.02**	**1.64**
Intercept	**.18**	**-25.44**	**.001**	**.01**	**.16**	**.21**
Model Wald $\chi^2 = 4.78$, $p = 0.028$, $N = 276{,}360$						

Note: For all three models the reference category is No (i.e., do not understand/speak Indigenous language). Bolded values are significant at $p < .05$.

As shown in Table 5, a series of logistic regression analysis models were used to analyze the relationship between understanding or speaking an Indigenous language and the likelihood of experiencing suicidal ideation during 12 months in First Nations, Inuit, and Métis respondents. It was found for Inuit respondents that the likelihood of experiencing suicidal ideation during the last 12 months was increased for those who understand or speak an Indigenous language (Inuit: OR = 2.93, $p < .001$, 95% CI [1.97, 4.34]. For First Nations and Métis respondents, there was no statistically significant relationship for the last 12 months and the likelihood of suicidal ideation for those who understand or speak an Indigenous language.

Table 5. Logistic Regression Predicting Suicidal Ideation (12 months) for Indigenous Respondents who Understand or Speak an Indigenous Language						
Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
Model 1 – First Nations						
Understand/speak language	1.06	0.50	.616	.13	.83	1.36
Intercept	**.06**	**-36.73**	**.001**	**.00**	**.05**	**.07**
Model Wald $\chi^2 = 0.25$, $p = 0.616$, $N = 483{,}970$						
Model 2 – Inuit						
Understand/speak language	**2.93**	**5.36**	**.001**	**.58**	**1.97**	**4.34**
Intercept	**.02**	**-19.94**	**.001**	**.00**	**.01**	**.03**
Model Wald $\chi^2 = 28.73$, $p = < .001$, $N = 36{,}510$						
Model 3 – Métis						
Understand/speak language	1.28	1.20	.229	.26	.85	1.93
Intercept	**.04**	**-28.24**	**.001**	**.00**	**.03**	**.05**
Model Wald $\chi^2 = 1.45$, $p = 0.228$, $N = 272{,}360$						

Note: For all three models the reference category is No. Bolded values are significant at $p < .05$.

Sense of Belonging

For sense of belonging, respondents were asked various questions pertaining to their perceived sense of belonging to their Indigenous history, engagement with Indigenous group events or activities, if they feel good about their Indigenous identity, and their sense of belonging to their Indigenous group. Of respondents who answered the first question, 74.6% (n = 601,350) reported trying to learn more about their histories, traditions, and cultures. For respondents who answered the second question, 34.1% (n = 274,370) reported engaging in the Indigenous community through organizations, social events, or cultural activities. Of respondents who answered the third question a considerable majority, 92.2% (n = 744,000) reported having a good feeling about their respective backgrounds. Lastly, for respondents who answered the fourth question, 59.2% (n = 456,110) reported having a deep sense of belonging. Refer to Table 3 for a breakdown of sense of belonging by First Nations, Inuit, and Métis.

As shown in Table 6, a series of logistic regression analysis models were used to analyze the relationship between interest in finding out more about Indigenous history, traditions, and culture and the likelihood of experiencing suicidal ideation during the lifetime. It was found for First Nations respondents (N = 487,230) that the likelihood of experiencing suicidal ideation during the lifetime was increased for those who strongly agreed/agreed to having an interest in finding out more about Indigenous history, traditions and culture (OR = 1.26, p = .016, 95% CI [1.04, 1.53]). For Inuit (N = 36,510) and Métis (N = 275,250) respondents, there was no statistically significant relationship for lifetime and the likelihood of suicidal ideation for those who had an interest in finding out more about Indigenous history, traditions and culture.

Table 6. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Interest in Finding out More about Indigenous History, Traditions and Culture

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Neither Agree nor Disagree	.74	-1.24	.214	.17	.46	1.18
Strongly agree/Agree	**1.26**	**2.41**	**.016**	**.12**	**1.04**	**1.53**
Intercept	**.21**	**-17.84**	**.001**	**.01**	**.17**	**.25**
Model Wald χ^2 = 10.53, p = 0.005, N = 487,230						
Model 2 – Inuit						
Neither Agree nor Disagree	.91	-0.41	.680	.19	.60	1.38
Strongly agree/Agree	1.09	0.65	.518	.15	.83	1.44
Intercept	**.27**	**-10.48**	**.001**	**.03**	**.21**	**.34**
Model Wald χ^2 = 1.07, p = 0.586, N = 36,510						
Model 3 – Métis						
Neither Agree nor Disagree	1.03	0.12	.905	.32	.56	1.92
Strongly agree/Agree	1.23	1.61	.107	.16	.95	1.59
Intercept	**.16**	**-15.05**	**.001**	**.01**	**.13**	**.21**
Model Wald χ^2 = 2.90, p = 0.235, N = 275,250						

Note: For all three models, the reference category is Strongly disagree/Disagree. Bolded values are significant at $p < .05$.

As shown in Table 7, a series of logistic regression analysis models were used to analyze the relationship between activity in Indigenous group events and activities and the likelihood of

experiencing suicidal ideation during the lifetime. For Métis respondents (N = 275,280), the likelihood of suicidal ideation during the lifetime was decreased for those who neither agreed nor disagreed with being active in Indigenous group events and activities (OR = .63, p = .038, 95% CI [.41, .97]). For First Nations (N = 486,680) and Inuit (N = 36,470) respondents, there was no statistically significant relationship for lifetime and the likelihood of suicidal ideation for those active in Indigenous group events and activities.

Table 7. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Activity in Indigenous Group Events and Activities

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Neither Agree nor Disagree	1.16	1.02	.308	.17	.87	1.55
Strongly agree/Agree	.91	-0.94	.346	.08	.77	1.09
Intercept	**.25**	**-26.59**	**.001**	**.01**	**.23**	**.28**
Model Wald χ^2 = 2.36, p = 0.306, N = 486,680						
Model 2 – Inuit						
Neither Agree nor Disagree	.82	-1.03	.303	.15	.56	1.19
Strongly agree/Agree	.84	-1.54	.122	.09	.68	1.04
Intercept	**.33**	**-12.89**	**.001**	**.02**	**.27**	**.39**
Model Wald χ^2 = 2.62, p = 0.269, N = 36,470						
Model 3 – Métis						
Neither Agree nor Disagree	**.63**	**-2.07**	**.038**	**.13**	**.41**	**.97**
Strongly agree/Agree	.79	-1.90	.057	.09	.62	1.00
Intercept	**.21**	**-23.78**	**.001**	**.01**	**.18**	**.24**
Model Wald χ^2 = 6.89, p = 0.031, N = 275,280						

Note: For all three models, the reference category is Strongly disagree/Disagree. Bolded values are significant at $p < .05$.

As shown in Table 8, a series of logistic regression analysis models were used to analyze the relationship between whether respondents feel good about their own Indigenous group identity and the likelihood of experiencing suicidal ideation during the lifetime. For First Nations respondents (N = 487,390), the likelihood of suicidal ideation during the lifetime was decreased for those who strongly agreed/agreed to feeling good about their own Indigenous identity (OR

= .57, p = .003, 95% CI [.40, .83]). For Inuit (N = 36,610) and Métis (N = 276,090) respondents, there was no statistically significant relationship for lifetime and the likelihood of suicidal ideation for respondents who reported if they feel good about their own Indigenous group identity.

Table 8. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by If They Feel Good about Own Indigenous Group Identity

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Neither Agree nor Disagree	.73	-1.31	.189	.17	.46	1.16
Strongly agree/Agree	**.57**	**-2.93**	**.003**	**.10**	**.40**	**.83**
Intercept	**.41**	**-4.82**	**.001**	**.07**	**.29**	**.59**
Model Wald χ^2 = 487,390, p = 0.010, N = 487,390						
Model 2 – Inuit						
Neither Agree nor Disagree	.79	-0.38	.706	.47	.24	2.57
Strongly agree/Agree	.76	-0.73	.468	.28	.36	1.59
Intercept	**.38**	**-2.56**	**.010**	**.14**	**.18**	**.79**
Model Wald χ^2 = 0.53, p = 0.767, N = 36,610						
Model 3 – Métis						
Neither Agree nor Disagree	.63	-1.33	.185	.21	.32	1.24
Strongly agree/Agree	.68	-1.74	.081	.14	.44	1.04
Intercept	**.28**	**-5.88**	**.001**	**.06**	**.18**	**.43**
Model Wald χ^2 = 3.16, p = 0.206, N = 276,090						

Note: For all three models, the reference category is Strongly disagree/Disagree. Bolded values are significant at $p < .05$.

As shown in Table 9, a series of logistic regression analysis models were used to analyze the relationship between whether respondents had a sense of belonging to their own Indigenous group identity and the likelihood of experiencing suicidal ideation during the lifetime. For First Nations (N = 485,720) and Métis (N = 275,060) respondents, the likelihood of suicidal ideation during the lifetime was decreased for those who strongly agreed/agreed to reporting a sense of belonging to their own Indigenous group identity (OR = .77, p = .003, 95% CI [.65, .91]; OR = .64, $p < .001$, 95% CI [.51, .79]). For Inuit respondents (N = 36,600), there was no statistically

significant relationship for lifetime and the likelihood of suicidal ideation for respondents who reported feeling a sense of belonging to their own Indigenous group identity.

Table 9. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Sense of Belonging to Their Own Indigenous Group Identity

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Neither Agree nor Disagree	.96	-0.22	.082	.14	.72	1.29
Strongly agree/Agree	**.77**	**-2.97**	**.003**	**.06**	**.65**	**.91**
Intercept	**.23**	**-17.75**	**.001**	**.02**	**.25**	**.33**
Model Wald $\chi^2 = 10.56$, $p = 0.005$, $N = 485{,}720$						
Model 2 – Inuit						
Neither Agree nor Disagree	.58	-1.72	.086	.18	.31	1.07
Strongly agree/Agree	.77	-1.42	.156	.13	.55	1.10
Intercept	**.37**	**-5.90**	**.001**	**.06**	**.26**	**.51**
Model Wald $\chi^2 = 3.34$, $p = 0.188$, $N = 36{,}600$						
Model 3 – Métis						
Neither Agree nor Disagree	.70	-1.88	.061	.12	.49	1.01
Strongly agree/Agree	**.64**	**-3.95**	**.001**	**.07**	**.51**	**.79**
Intercept	**.25**	**-16.78**	**.001**	**.02**	**.21**	**.29**
Model Wald $\chi^2 = 15.89$, $p = < .001$, $N = 275{,}060$						

Note: For all three models, the reference category is Strongly disagree/Disagree. Bolded values are significant at $p < .05$.

As shown in Table 10, a series of logistic regression analysis models were used to analyze the relationship between activity in Indigenous group events and activities and the likelihood of experiencing suicidal ideation during the last 12 months. For First Nations respondents (N =486,530), the likelihood of suicidal ideation during the last 12 months was decreased for those who strongly agreed/agreed with being active in Indigenous group events and activities (OR = .74, p = .028, 95% CI [.57, .97]). For Inuit (N = 36,470) and Métis (N = 275,280) respondents, there was no statistically significant relationship for the last 12 months and the likelihood of suicidal ideation for those active in Indigenous group events and activities.

Table 10. Logistic Regression Predicting Suicidal Ideation (12 months) for Indigenous Respondents by Activity in Indigenous Group Events and Activities						
Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Neither Agree nor Disagree	.99	-0.01	.994	.24	.61	1.61
Strongly agree/Agree	**.74**	**-2.19**	**.028**	**.09**	**.57**	**.97**
Intercept	**.07**	**-34.11**	**.001**	**.00**	**.06**	**.08**
Model Wald $\chi^2 = 4.91$, $p = 0.085$, $N = 486{,}530$						
Model 2 – Inuit						
Neither Agree nor Disagree	.61	-1.38	.168	.21	.30	1.23
Strongly agree/Agree	.80	-1.18	.238	.14	.56	1.15
Intercept	**.08**	**-17.78**	**.001**	**.01**	**.06**	**.10**
Model Wald $\chi^2 = 2.50$, $p = 0.285$, $N = 36{,}470$						
Model 3 – Métis						
Neither Agree nor Disagree	.80	-0.62	.537	.28	.39	1.61
Strongly agree/Agree	.69	-1.60	.110	.15	.44	1.08
Intercept	**.05**	**-27.12**	**.001**	**.00**	**.04**	**.06**
Model Wald $\chi^2 = 2.74$, $p = 0.253$, $N = 275{,}280$						

Note: For all three models, the reference category is Strongly disagree/Disagree. Bolded values are significant at $p < .05$.

Cultural Activities

Respondents were asked four questions regarding the traditional activities in which they engaged in during the last 12 months. The first question examined how often during the last 12 months the respondents hunted, fished or trapped. Of those who answered the question, 35.4% (n = 298,580) of respondents endorsed having hunted, fished or trapped in the last 12 months. The second question examined if the respondents gathered wild plants in the last 12 months. Of those who answered the question, 29% (n = 244,310) of respondents indicated gathering wild plants in the last 12 months. The third question examined if the respondents made clothing or footwear in the last 12 months. Of those who answered the question, 9.3% (n = 79,050) of respondents indicated making clothing or footwear in the last 12 months. The last question examined the frequency with which respondents made carvings, drawings, jewellery or other kinds of artwork.

Of those who answered the question, 24.7% (*n* =208,100) of respondents endorsed making carvings, drawings, jewellery or other kinds of artwork. Refer to Table 3 for a breakdown of the engagement of cultural activities by Indigenous groups.

As shown in Table 11, a series of logistic regression analysis models were used to analyze the relationship between engagement with cultural activities and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents. For First Nations respondents (*N* = 487,860), the likelihood of suicidal ideation during the lifetime was increased when the number of activities was 2,3, or 4. (Two activities: OR = 1.41, $p < 0.001$, 95% CI [1.16, 1.73], Three activities: OR = 2.08, $p < 0.001$, 95% CI [1.53, 2.84], Four activities: OR = 2.25, $p < 0.001$, 95% CI [1.37, 3.71]). For one activity, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

For Inuit respondents (*N* =36,600), the likelihood of suicidal ideation during the lifetime decreased when the number of activities was 1. (One activity: OR = .66, $p = 0.006$, 95% CI [.49, .88]). For 2,3, or 4 activities, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

For Métis respondents (*N* = 276,220), the likelihood of suicidal ideation during the lifetime was increased when the number of activities was 2,3 or 4. (Two activities: OR = 1.35, $p = 0.034$, 95% CI [1.02, 1.78], Three activities: OR = 1.59, $p = 0.020$, 95% CI [1.07, 2.37], Four activities: OR = 4.44, $p < 0.001$, 95% CI [1.95 – 10.10]). For one activity, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

Table 11. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Engagement with Cultural Activities						
Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
Model 1 – First Nations						
1 Activity	1.15	1.50	.135	.10	.95	1.39
2 Activities	**1.41**	**3.42**	**.001**	**.14**	**1.16**	**1.73**
3 Activities	**2.08**	**4.66**	**.001**	**.32**	**1.53**	**2.84**
4 Activities	**2.25**	**3.22**	**.001**	**.57**	**1.37**	**3.71**
Intercept	**.20**	**-22.65**	**.001**	**.01**	**.17**	**.23**
Model Wald $\chi^2 = 34.39$, $p = < .001$, $N = 487{,}860$						
Model 2 – Inuit						
1 Activity	**.66**	**-2.75**	**.006**	**.09**	**.49**	**.88**
2 Activities	.93	-0.46	.644	.13	.69	1.24
3 Activities	1.09	0.52	.602	.18	.78	1.52
4 Activities	1.06	0.21	.831	.29	.61	1.82
Intercept	**.33**	**-9.30**	**.001**	**.03**	**.26**	**.41**
Model Wald $\chi^2 = 14.34$, $p = 0.006$, $N = 36{,}600$						
Model 3 – Métis						
1 Activity	1.25	1.76	.078	.16	.97	1.62
2 Activities	**1.35**	**2.12**	**.034**	**.19**	**1.02**	**1.78**
3 Activities	**1.59**	**2.33**	**.020**	**.32**	**1.07**	**2.37**
4 Activities	**4.44**	**3.56**	**.001**	**1.86**	**1.95**	**10.10**
Intercept	**.16**	**-20.14**	**.001**	**.01**	**.13**	**.19**
Model Wald $\chi^2 = 19.19$, $p = < .001$, $N = 276{,}220$						

Note: Dependent Variable = Suicidal Ideation (Lifetime). For all three models, the reference category is No engagement. Bolded values are significant at $p < .05$.

Table 12. Risk Factors

Variable	All Groups $N = 885,580$			First Nations $n = 513,290$			Inuit $n = 41,310$			Métis $n = 287,300$		
	Pop.	*n*	%	Pop.	*n*	%	Pop.	*n*	%	Pop.	*n*	%
Alcohol Use												
Less than once a month	634,520	161,650	25.4	379,810	101,620	26.7	26,250	7,610	28.9	228,460	52,420	22.9
Once a month	634,520	94,150	14.8	379,810	55,960	14.7	26,250	5,370	20.4	228,460	32,820	14.3
2 to 3 times a month	634,520	102,390	16.1	379,810	60,660	15.9	26,250	4,770	18.1	228,460	36,960	16.1
Once a week	634,520	114,560	18	379,810	66,270	17.4	26,250	3,500	13.3	228,460	44,780	19.6
2 to 3 times a week	634,520	102,540	16.1	379,810	60,500	15.9	26,250	3,730	14.2	228,460	38,320	16.7
4 to 6 times a week	634,520	23,140	3.6	379,810	13,910	3.6	26,250	640	2.4	228,460	8,590	3.7
Everyday	634,520	36,090	5.6	379,810	20,900	5.5	26,250	630	2.4	228,460	14,560	6.3
Drug Use	801,990	43,260	5.3	488,550	29,680	6	36,720	1,180	3.2	276,720	12,400	4.4
Mental Health Status (self-reported)												
Poor	804,550	35,270	4.3	489,070	23,160	4.7	36,940	870	2.3	278,530	11,250	4
Fair	804,550	94,310	11.7	489,070	59,210	12.1	36,940	3,570	9.6	278,530	31,540	11.3
Good	804,550	246,720	30.6	489,070	151,960	31	36,940	15,140	40.9	278,530	79,630	28.5
Very good	804,550	234,280	29.1	489,070	139,070	28.4	36,940	9,860	26.6	278,530	85,350	30.6
Excellent	804,550	193,960	24.1	489,070	115,690	23.6	36,940	7,510	20.3	278,530	70,760	25.4
Anxiety disorders	837,260	161,130	19.2	510,280	105,420	20.6	41,060	4,300	10.4	285,920	51,410	17.9
Mood disorders	837,910	149,940	17.8	511,140	96,960	18.9	40,960	5,280	12.8	285,810	47,710	16.6
Health status (self-perceived)												
Poor	839,700	57,270	6.8	511,460	38,280	7.4	41,200	2,130	5.1	287,040	16,850	5.8
Fair	839,700	121,550	14.4	511,460	78,070	15.2	41,200	5,510	13.3	287,040	37,970	13.2
Good	839,700	259,100	30.8	511,460	158,980	31	41,200	16,110	39.1	287,040	84,010	29.2

	Very good	839,700	246,810	29.3	511,460	145,070	28.3	41,200	10,410	25.2	287,040	91,330	31.8
	Excellent	839,700	154,960	18.4	511,460	91,060	17.8	41,200	7,030	17	287,040	56,870	19.8
Income													
	Less than $30,000	109,770	77,000	70.1	68,070	49,480	72.6	7,680	5,690	74	34,020	21,830	64.1
	$30,000 and more	109,770	32,770	28.8	68,070	18,590	27.3	7,680	2,000	26	34,020	12,190	35.8
	Less than $5,000	786,630	107,910	13.7	481,800	69,880	14.4	37,210	7,950	21.3	267,610	30,080	11.2
	$5,000 to less than $9,999	786,630	53,240	6.7	481,800	35,760	7.4	37,210	3,330	8.9	267,610	14,150	5.2
	$10,000 to less than $19,999	786,630	148,890	18.9	481,800	100,000	20.7	37,210	6,530	17.5	267,610	42,360	15.8
	$20,000 to less than $29,999	786,630	106,080	13.4	481,800	67,340	13.9	37,210	4,660	12.5	267,610	34,080	12.7
	$30,000 to less than $39,999	786,630	81,890	10.4	481,800	49,050	10.1	37,210	3,490	9.3	267,610	29,340	10.9
	$40,000 to less than $49,999	786,630	63,290	8	481,800	37,210	7.7	37,210	2,430	6.5	267,610	23,650	8.8
	$50,000 to less than $69,999	786,630	97,340	12.3	481,800	53,550	11.1	37,210	3,850	10.3	267,610	39,930	14.9
	$70,000 and over	786,630	127,990	16.2	481,800	60,010	12.4	37,210	4,970	13.3	267,610	54,010	20.1
Housing													
	Very satisfied	840,590	338,230	40.2	512,490	201,020	39.2	40,930	8,760	21.4	287,180	128,460	44.7
	Satisfied	840,590	397,030	47.2	512,490	242,890	47.3	40,930	19,990	48.8	287,180	134,150	46.7
	Neither satisfied nor dissatisfied	840,590	19,910	2.3	512,490	13,070	2.5	40,930	2,030	4.9	287,180	4,820	1.6
	Dissatisfied	840,590	63,650	7.5	512,490	41,710	8.1	40,930	7,850	19.1	287,180	14,090	4.9
	Very dissatisfied	840,590	21,770	2.5	512,490	13,800	2.6	40,930	2,300	5.6	287,180	5,670	1.9
Residential School System													
	Attended	841,910	40,820	4.8	513,290	29,120	5.6	41,330	5,460	13.2	287,300	6,240	2.1
	Parents	841,910	148,290	17.6	513,290	113,650	22.1	41,330	14,000	33.8	287,300	20,650	7.1

	Grandparents	841,910	201,650	23.9	513,290	156,510	30.4	41,330	8,040	19.4	287,300	37,100	12.9
	Current spouse/partner	595,660	21,700	3.6	352,680	14,170	4	27,850	2,940	10.5	215,130	4,590	2.1
	Other relatives	834,080	219,100	26.2	507,810	166,570	32.8	40,750	19,890	48.8	285,510	32,640	11.4

Risk Factors

It was hypothesized that there would be a statistically significant positive association between each risk factor and suicidal ideation. Chi-square analyses examined five dichotomous predictor variables (e.g., drug misuse, mood disorders, anxiety disorders, limited access to mental health services, and residential school system experience) and the association between the dichotomous outcome variables of suicidal ideation. Logistic regression was utilized to examine the association of five ordinal predictor variables (e.g., alcohol misuse, mental health (self-reported) ,general health (self-reported), income, and housing) in predicting the dichotomous outcome variable of suicidal ideation.

Alcohol Use

Respondents were asked how frequently they had consumed alcohol during the last 12 months. Of those who answered the question, 25.4% (*n* = 161,650) reported drinking less than once a month, 14.8% (*n* = 94,150) drank once a month, 16.1% (*n* =102,390) drank 2 to 3 times a month, 18% (*n* = 114,560) drank once a week, 16.1% (*n* = 102,540) drank 2 to 3 times a week, 3.6% (*n* = 23,140) drank 4 to 6 times a week, and 5.6% (*n* = 36,090) drank every day. The most comparable response between Indigenous groups was in regards to consuming alcohol 4 to 6 times a week. Of those, 3.6% (*n* = 13,910) First Nations, 2.4% (*n* = 640) Inuit, and 3.7% (*n* = 8,590) Métis reported consuming alcohol 4 to 6 times a week. The response with the greatest variation between Indigenous groups was in regards to consuming alcohol once a week. Of those, 17.4% (*n* = 66,270) First Nations, 13.3% (*n* = 3,500) Inuit, and 19.6% (*n* = 44,780) Métis reported consuming alcohol once a week. Refer to Table 12 for a further breakdown of alcohol use by Indigenous groups.

As shown in Table 13, a series of logistic regression analysis models were used to analyze the relationship between alcohol use during the last 12 months and likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents.

For First Nations respondents (N =363,770), the likelihood of suicidal ideation during the lifetime was decreased when the use of alcohol was two to three times a month, once a week, two to three times a week, and four to six times a week. (Two to three times a month: OR = .69, p = 0.009, 95% CI [.53, .91], once a week: OR = .52, p < 0.001, 95% CI [.40, .69], two to three times a week: OR = .64, p = 0.002, CI [.49, .84], four to six times a week: OR = .48, p < 0.001, CI 95% [.31, .74]. For once a month and everyday, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation. For Inuit respondents (N = 24,190), there was no statistically significant relationship between alcohol use and the lifetime likelihood of suicidal ideation. For Métis respondents (N = 223,380), the likelihood of suicidal ideation during the lifetime was decreased when the use of alcohol was once a week and two to three times a week. (Once a week: OR = .64, p = 0.019, 95% CI [.44, .93], two to three times a week: OR = .54, p < 0.001, 95% CI [.39, .76]). For once a month, two to three times a month, four to six times a week, and everyday there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

Table 13. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents Alcohol Use during the Last 12 Months						
Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Once a month	.78	-1.88	.060	.10	.60	1.01
2 to 3 times a month	**.69**	**-2.63**	**.009**	**.09**	**.53**	**.91**
Once a week	**.52**	**-4.58**	**.001**	**.07**	**.40**	**.69**
2 to 3 times a week	**.64**	**-3.16**	**.002**	**.08**	**.49**	**.84**
4 to 6 times a week	**.48**	**-3.29**	**.001**	**.10**	**.31**	**.74**
Everyday	.91	-0.47	.638	.17	.63	1.31
Intercept	**.33**	**-13.92**	**.001**	**.02**	**.28**	**.38**
Model Wald $\chi2 = 33.72$, $p < .001$, $N = 363,770$						
Model 2 – Inuit						
Once a month	1.11	0.61	.540	.20	.78	1.60
2 to 3 times a month	.91	-0.50	.616	.16	.63	1.30
Once a week	.79	-1.18	.239	.15	.54	1.16
2 to 3 times a week	.93	-0.34	.731	.19	.62	1.39
4 to 6 times a week	1.76	1.61	.108	.61	.88	3.50
Everyday	1.03	0.09	.982	.35	.52	2.02
Intercept	**.33**	**-8.91**	**.001**	**.04**	**.26**	**.42**
Model Wald $\chi2 = 6.03$, $p = 0.419$, $N = 24,190$						
Model 3 – Métis						
Once a month	.82	-0.98	.325	.15	.57	1.20
2 to 3 times a month	1.05	0.31	.755	.18	.75	1.47
Once a week	**.64**	**-2.34**	**.019**	**.12**	**.44**	**.93**
2 to 3 times a week	**.54**	**-3.54**	**.001**	**.09**	**.39**	**.76**
4 to 6 times a week	1.47	1.18	.239	.49	.77	2.83
Everyday	.81	-0,60	.550	.27	.41	1.59
Intercept	**.22**	**-13.50**	**.001**	**.02**	**.18**	**.28**
Model Wald $\chi2 = 22.92$, $p < .001$, $N = 223,380$						

Note: For all three models the reference category is Less than once a month. Bolded values are significant at $p < .05$.

Drug Use

Respondents were asked if they had used prescription drugs for recreational purposes or street drugs (such as cocaine, speed, solvents or steroids) in the last 12 months. For all groups,

5.3% (*n* = 43,260) reported using prescription drugs or street drugs in the last 12 months. When apportioned by group, 6% (*n* = 29,680) First Nations, 3.2% (*n* = 1,180) Inuit, and 4.4% (*n* = 12,400) Métis reported using prescription drugs or street drugs in the last 12 months (see Table 12).

As shown in Table 14, a series of logistic regression analysis models were used to analyze the relationship between drug use during the last 12 months and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents. It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the lifetime was increased for those who used drugs during the last 12 months (First Nations: OR = 2.03, $p < 0.001$, 95% CI [1.53, 2.70]; Inuit: OR = 2.25, $p = 0.006$, 95% CI [1.26, 4.03]; Métis: OR = 2.76, $p < 0.001$, 95% CI [1.73, 4.40]).

Table 14. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Drug Use During the Last 12 Months

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Drug Use	**2.03**	**4.89**	**.001**	**.29**	**1.53**	**2.70**
Intercept	**.23**	**-36.04**	**.001**	**.00**	**.22**	**.25**
Model Wald $\chi^2 = 23.96$, $p < .001$, $N = 487{,}320$						
Model 2 – Inuit						
Drug Use	**2.25**	**2.74**	**.006**	**.66**	**1.26**	**4.03**
Intercept	**.28**	**-24.52**	**.001**	**.01**	**.26**	**.31**
Model Wald $\chi^2 = 7.52$, $p = 0.006$, $N = 36{,}530$						
Model 3 – Métis						
Drug Use	**2.76**	**4.30**	**.001**	**.65**	**1.73**	**4.40**
Intercept	**.18**	**-29.81**	**.001**	**.01**	**.16**	**.20**
Model Wald $\chi^2 = 18.45$, $p < .001$, $N = 275{,}990$						

Note: For all three models the reference category is No. Bolded values are significant at $p < .05$.

As shown in Table 15, a series of logistic regression analysis models were used to analyze the relationship between drug use during the last 12 months and the likelihood of

experiencing suicidal ideation during the last 12 months in First Nations, Inuit, and Métis respondents. It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the last 12 months was increased for those who used drugs during the last 12 months (First Nations: OR = 3.33, $p < 0.001$, 95% CI [2.24, 4.93]; Inuit: OR = 3.72, $p < 0.001$, 95% CI [1.80, 7.71]; Métis: OR = 3.74, $p < 0.001$, 95% CI [2.12, 6.60]).

Table 15. Logistic Regression Predicting Suicidal ideation (12 months) for Indigenous Respondents by Drug Use During the Last 12 months

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Drug Use	**3.33**	**5.98**	**.001**	**.66**	**2.24**	**4.93**
Intercept	**.05**	**-45.66**	**.001**	**.00**	**.05**	**.06**
Model Wald $\chi^2 = 35.81$, $p < .001$, $N = 487{,}170$						
Model 2 – Inuit						
Drug Use	**3.72**	**3.55**	**.001**	**1.38**	**1.80**	**7.71**
Intercept	**.06**	**-32.69**	**.001**	**.00**	**.05**	**.07**
Model Wald $\chi^2 = 12.58$, $p < .001$, $N = 36{,}530$						
Model 3 – Métis						
Drug Use	**3.74**	**4.57**	**.001**	**1.08**	**2.12**	**6.60**
Intercept	**.04**	**-30.87**	**.001**	**.00**	**.03**	**.05**
Model Wald $\chi^2 = 20.92$, $p < .001$, $N = 275{,}990$						

Note: For all three models the reference category is No. Bolded values are significant at $p < .05$.

Mental Health

Respondents were asked to report their mental health status based on their own judgement. Of those that answered the question, 4.3% (n = 35,270) reported poor mental health, 11.7% (n = 94,310) fair, 30.6% (n = 246,720) good, 29.1% (n = 234,280) very good, and 24% (n = 193,960) excellent mental health status. The most comparable response between Indigenous groups was in terms of the poor mental health response. Of those, 4.7% (n = 23,150) First Nations, 2.3% (n = 870) Inuit, and 4% (n = 11,250) Métis reported a poor mental health status. The response with the greatest variation between Indigenous groups was for the good mental

health response. Of those, 31% (*n* = 151,960) First Nations, 40.9% (*n* = 15,140) Inuit, and 28.5% (*n* = 79,630) Métis reported a good mental health status. Refer to Table 12 for a further breakdown of self-reported mental health status by Indigenous groups.

As shown in Table 16, a series of logistic regression analysis models were used to analyze the relationship between mental health status (self-reported) and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents.

Table 16. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous by Mental Health Status (Self-reported)

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Fair	**.34**	**-5.95**	**.001**	**.06**	**.24**	**.48**
Good	**.12**	**-12.01**	**.001**	**.02**	**.08**	**.17**
Very good	**.05**	**-16.30**	**.001**	**.00**	**.03**	**.07**
Excellent	**.02**	**-15.73**	**.001**	**.00**	**.01**	**.04**
Intercept	**2.33**	**5.27**	**.001**	**.37**	**1.70**	**3.20**
Model Wald $\chi^2 = 513.14$, $p < .001$, $N = 486{,}000$						
Model 2 – Inuit						
Fair	.84	-0.57	.571	.24	.47	1.50
Good	**.28**	**-4.78**	**.001**	**.07**	**.16**	**.47**
Very good	**.17**	**-6.31**	**.001**	**.04**	**.09**	**.29**
Excellent	**.17**	**-6.20**	**.001**	**.04**	**.10**	**.30**
Intercept	1.08	0.32	.751	.27	.65	1.77
Model Wald $\chi^2 = 118.93$, $p < .001$, $N = 36{,}570$						
Model 3 – Métis						
Fair	**.38**	**-3.61**	**.001**	**.10**	**.23**	**.65**
Good	**.14**	**-7.51**	**.001**	**.03**	**.08**	**.23**
Very good	**.05**	**-10.83**	**.001**	**.01**	**.03**	**.09**
Excellent	**.04**	**-9.64**	**.001**	**.01**	**.02**	**.08**
Intercept	**1.59**	**2.01**	**.045**	**.36**	**1.01**	**2.51**
Model Wald $\chi^2 = 202.86$, $p < .001$, $N = 276{,}150$						

Note: For all three models the reference category is Poor. Bolded values are significant at $p < .05$. DV = Dependent variable.

It was found for First Nation (*N* = 486,000) and Métis (*N* = 276,150) respondents that the likelihood of experiencing suicidal ideation during the lifetime was decreased when mental

health status improved. For First Nations, the likelihood decreased for fair, good, very good, and excellent mental health statuses. (Fair: OR = .34, $p < 0.001$, 95% CI [.24, .48], Good: OR = .12, $p < 0.001$, 95% CI [.08, .17], Very good: OR = .05, $p < 0.001$, 95% CI [.03, .07], Excellent: OR = .02, $p < 0.001$, 95% CI [.01, .04]). Métis's likelihood decreased for fair, good, very good, and excellent mental health statuses. (Fair: OR = .38, $p < 0.001$, 95% CI [.23, .65], Good: OR = .14, $p < 0.001$, 95% CI [.08, .23], Very good: OR = .05, $p < 0.001$, 95% CI [.03, .09], Excellent: OR = .04, $p < 0.001$, 95% CI [.02, .08]).

For Inuit respondents ($N = 36,570$), the likelihood of suicidal ideation during the lifetime was decreased when mental health status was good, very good, and excellent. (Good: OR = .28, $p < 0.001$, 95% CI [.16, .47], Very good: OR = .17, $p < 0.001$, 95% CI [.09, .29], Excellent: OR = .17, $p < 0.001$, 95% CI [.10, .30]). For Fair, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

Mood Disorders

Respondents were asked if they had a mood disorder such as depression, bipolar disorder, mania or dysthymia. Of those who answered the question, 17.8% ($n = 149,940$) of respondents reported having a mood disorder such as depression, bipolar disorder, mania or dysthymia. Of those, 18.9% ($n = 96,960$) First Nations, 12.8% ($n = 5,280$) Inuit, and 16.6% ($n = 47,710$) Métis endorsed having a mood disorder Refer to Table 12 for a further breakdown of mood disorders by Indigenous groups.

As shown in Table 17, a series of logistic regression analysis models were used to analyze the relationship between having a mood disorder and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents.

It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the lifetime was increased for those who had a mood disorder. (First Nations: OR = 8.21, $p < 0.001$, 95% CI [6.69, 9.67]; Inuit: OR = 5.03, $p < 0.001$, 95% CI [3.87, 6.54]; Métis: OR = 8.53, $p < 0.001$, 95% CI [6.51, 11.18]).

Table 17. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Mood Disorders

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Mood Disorder	**8.21**	**25.16**	**.001**	**.68**	**6.96**	**9.67**
Intercept	**.13**	**-38.80**	**.001**	**.00**	**.12**	**.15**
Model Wald $\chi^2 = 633.15$, $p < .001$, $N = 487{,}130$						
Model 2 – Inuit						
Mood Disorder	**5.03**	**12.12**	**.001**	**.67**	**3.87**	**6.54**
Intercept	**.22**	**-25.97**	**.001**	**.01**	**.20**	**.25**
Model Wald $\chi^2 = 146.89$, $p < .001$, $N = 36{,}590$						
Model 3 – Métis						
Mood Disorder	**8.53**	**15.57**	**.001**	**1.17**	**6.51**	**11.18**
Intercept	**.11**	**-27.08**	**.001**	**.00**	**.09**	**.12**
Model Wald $\chi^2 = 242.50$, $p < .001$, $N = 276{,}090$						

Note: For all three models the reference category is No Mood Disorder. Bolded values are significant at $p < .05$.

As shown in Table 18, a series of logistic regression analysis models were used to analyze the relationship between having a mood disorder and the likelihood of experiencing suicidal ideation during the last 12 months in First Nations, Inuit, and Métis respondents.

It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the last 12 months was increased for those who had a mood disorder. (First Nations: OR = 11.66, $p < 0.001$, 95% CI [8.95, 15.19]; Inuit: OR = 7.81, $p < 0.001$, 95% CI [5.45, 11.19]; Métis: OR = 9.48, $p < 0.001$, 95% CI [6.16, 14.59]).

Table 18. Logistic Regression Predicting Suicidal Ideation (12 months) for Indigenous Respondents by Mood Disorders						
Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Mood Disorder	**11.66**	**18.19**	**.001**	**1.57**	**8.95**	**15.19**
Intercept	**.02**	**-35.45**	**.001**	**.00**	**.01**	**.02**
Model Wald $\chi^2 = 330.91$, $p < .001$, $N = 486{,}980$						
Model 2 – Inuit						
Mood Disorder	**7.81**	**11.20**	**.001**	**1.43**	**5.45**	**11.19**
Intercept	**.04**	**-29.59**	**.001**	**.00**	**.03**	**.05**
Model Wald $\chi^2 = 125.48$, $p < .001$, $N = 36{,}580$						
Model 3 – Métis						
Mood Disorder	**9.48**	**10.22**	**.001**	**2.08**	**6.16**	**14.59**
Intercept	**.02**	**-21.46**	**.001**	**.00**	**.01**	**.03**
Model Wald $\chi^2 = 104.53$, $p < .001$, $N = 276{,}090$						

Note: For all three models the reference category is No Mood Disorder. Bolded values are significant at $p < .05$.

Anxiety Disorders

For anxiety disorders, respondents were asked if they had an anxiety disorder such as a phobia, obsessive-compulsive disorder or panic disorder. Of those who answered the question, 19.2% (n = 161,130) of respondents reported having an anxiety disorder. Of those, 20.6% (n = 105,420) First Nations, 10.4% (n = 4,300) Inuit, and 17.9% (n = 51,410) Métis endorsed having an anxiety disorder. Refer to Table 12 for a further breakdown of anxiety disorders by Indigenous groups.

As shown in Table 19, a series of logistic regression analysis models were used to analyze the relationship between having an anxiety disorder and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents. It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the lifetime was increased for those who had an anxiety disorder. (First Nations: OR = 5.41, $p <$

0.001, 95% CI [4.64, 6.31]; Inuit: OR = 3.81, $p < 0.001$, 95% CI [2.89, 5.04]; Métis: OR = 5.40, $p < 0.001$, 95% CI [4.29, 6.78]).

Table 19. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Anxiety Disorders

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Anxiety Disorder	**5.41**	**21.58**	**.001**	**.42**	**4.64**	**6.31**
Intercept	**.15**	**-38.10**	**.001**	**.00**	**.14**	**.16**
Model Wald $\chi^2 = 465.80$, $p < .001$, $N = 486{,}610$						
Model 2 – Inuit						
Anxiety Disorder	**3.81**	**9.44**	**.001**	**.54**	**2.89**	**5.04**
Intercept	**.24**	**-25.77**	**.001**	**.01**	**.21**	**.27**
Model Wald $\chi^2 = 89.10$, $p < .001$, $N = 36{,}630$						
Model 3 – Métis						
Anxiety Disorder	**5.40**	**14.47**	**.001**	**.62**	**4.29**	**6.78**
Intercept	**.12**	**-28.48**	**.001**	**.00**	**.10**	**.14**
Model Wald $\chi^2 = 209.45$, $p < .001$, $N = 276{,}180$						

Note: For all three models the reference category is No Anxiety Disorder. Bolded values are significant at $p < .05$.

Table 20. Logistic Regression Predicting Suicidal Ideation (12 months) for Indigenous Respondents by Anxiety Disorders

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Anxiety Disorder	**7.53**	**15.68**	**.001**	**.97**	**5.85**	**9.70**
Intercept	**.02**	**-37.06**	**.001**	**.00**	**.02**	**.03**
Model Wald $\chi^2 = 245.96$, $p < .001$, $N = 486{,}460$						
Model 2 – Inuit						
Anxiety Disorder	**5.88**	**9.24**	**.001**	**1.12**	**4.03**	**8.56**
Intercept	**.04**	**-31.79**	**.001**	**.00**	**.04**	**.05**
Model Wald $\chi^2 = 85.33$, $p < .001$, $N = 36{,}630$						
Model 3 – Métis						
Anxiety Disorder	**6.71**	**9.73**	**.001**	**1.31**	**4.57**	**9.85**
Intercept	**.02**	**-23.31**	**.001**	**.00**	**.04**	**.05**
Model Wald $\chi^2 = 94.66$, $p < .001$, $N = 276{,}180$						

Note: For all three models the reference category is No Anxiety Disorder. Bolded values are significant at $p < .05$.

As shown in Table 20, a series of logistic regression analysis models were used to analyze the relationship between having an anxiety disorder and the likelihood of experiencing suicidal ideation during the last 12 months in First Nations, Inuit, and Métis respondents. It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the last 12 months was increased for those who had an anxiety disorder. (First Nations: OR = 7.53, $p < 0.001$, 95% CI [5.85, 9.70]; Inuit: OR = 5.88, $p < 0.001$, 95% CI [4.03, 8.56]; Métis: OR = 6.71, $p < 0.001$, 95% CI [4.57, 9.85]).

Health Status

Respondents were asked to indicate their general health status based on their own judgement with higher scores indicating greater perceived health status. Of those who answered the question, 6.7% (n = 59,350) of respondents reported poor health status. 14.6% (n = 129,230) reported fair health status, 30.9% (n = 273,530) reported good health status, 29.3% (n = 258,860) reported very good health status, and 18.3% (n = 162,380) reported excellent health status. Refer to Table 12 for a further breakdown of health status by Indigenous groups.

As shown in Table 21, a series of logistic regression analysis models were used to analyze the relationship between health status (self-perceived) and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents.

It was found for First Nation (N = 486,670) and Inuit (N = 36,550) respondents that the likelihood of experiencing suicidal ideation during the lifetime was decreased when health status improved. For First Nations, the likelihood decreased for good, very good, and excellent mental health statuses. (Good: OR = .43, $p < 0.001$, 95% CI [.32, .56], Very good: OR = .21, $p < 0.001$, 95% CI [.16, .28], Excellent: OR = .14, $p < 0.001$, 95% CI [.10, .19]). For Inuit, the likelihood decreased for good, very good, and excellent mental health statuses. (Good: OR = .48, $p < 0.001$,

95% CI [.32, .73], Very good: OR = .35, $p < 0.001$, 95% CI [.22, .55], Excellent: OR = .36, $p < 0.001$, 95% CI [.23, .57]). For First Nations and Inuit respondents, the Fair response showed no statistically significant relationship to the lifetime likelihood of suicidal ideation. For Métis respondents (N =276,180), the likelihood of suicidal ideation during the lifetime was decreased when health status was fair, good, very good, and excellent. (Fair: OR = .49, $p < 0.001$, 95% CI [.33, .73], Good: OR = .31, $p < 0.001$, 95% CI [.21, .45], Very good: OR = .17, $p < 0.001$, 95% CI [.22, .26], Excellent: OR = .10, $p < 0.001$, 95% CI [.05, .19]).

Table 21. Logistic Regression predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Health Status (Self-perceived)

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Fair	.74	-1.95	.051	.11	.55	1.00
Good	**.43**	**-6.19**	**.001**	**.05**	**.32**	**.56**
Very good	**.21**	**-10.65**	**.001**	**.03**	**.16**	**.28**
Excellent	**.14**	**-11.57**	**.001**	**.02**	**.10**	**.19**
Intercept	**.66**	**-3.39**	**.001**	**.07**	**.52**	**.84**
Model Wald $\chi^2 = 235.54$, $p < .001$, $N = 486,670$						
Model 2 – Inuit						
Fair	.85	-0.67	.500	.19	.54	1.34
Good	**.48**	**-3.49**	**.001**	**.10**	**.32**	**.73**
Very good	**.35**	**-4.52**	**.001**	**.08**	**.22**	**.55**
Excellent	**.36**	**-4.29**	**.001**	**.08**	**.23**	**.57**
Intercept	**.59**	**-2.71**	**.007**	**.11**	**.40**	**.86**
Model Wald $\chi^2 = 42.55$, $p < .001$, $N = 36,550$						
Model 3 – Métis						
Fair	**.49**	**-3.49**	**.001**	**.09**	**.33**	**.73**
Good	**.31**	**-6.14**	**.001**	**.05**	**.21**	**.45**
Very good	**.17**	**-8.19**	**.001**	**.03**	**.22**	**.26**
Excellent	**.10**	**-7.05**	**.001**	**.03**	**.05**	**.19**
Intercept	.72	-1.90	.057	.12	.52	1.00
Model Wald $\chi^2 = 84.23$, $p < .001$, $N = 276,180$						

Note: For all three models the reference category is Poor. Bolded values are significant at $p < .05$.

Income

Respondents were asked to estimate in which of the following groups their personal income falls – less than $30,000, including income loss or $30,000 and more. Of those that answered the question, 69.9% (*n* = 80,560) reported less than $30,000 and 30.1% (*n* = 32,660) reported $30,000 and more. Refer to Table 12 for a further breakdown of income by Indigenous group.

As shown in Table 22, a series of logistic regression analysis models were used to analyze the relationship between estimated total personal income and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents. It was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the lifetime was decreased for those who an estimated total personal income of $30,000 and more. (First Nations: OR = .32, $p < 0.001$, 95% CI [.20, .53]; Inuit: OR = .46, $p < 0.001$, 95% CI [.26, .81]; Métis: OR = .21, $p < 0.001$, 95% CI [.09, .49]).

Table 22. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Estimated Total Personal Income

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
$30,000 and more	**.32**	**-4.52**	**.001**	**.08**	**.20**	**.53**
Intercept	**.30**	**-9.91**	**.001**	**.03**	**.24**	**.38**
Model Wald $\chi^2 = 20.44$, $p < .001$, $N = 63{,}930$						
Model 2 – Inuit						
$30,000 and more	**.46**	**-2.68**	**.007**	**.13**	**.26**	**.81**
Intercept	**.38**	**-6.93**	**.001**	**.05**	**.29**	**.50**
Model Wald $\chi^2 = 7.16$, $p = 0.007$, $N = 6{,}640$						
Model 3 – Métis						
$30,000 and more	**.21**	**-3.59**	**.001**	**.09**	**.09**	**.49**
Intercept	**.30**	**-6.69**	**.001**	**.05**	**.21**	**.42**
Model Wald $\chi^2 = 12.86$, $p < .001$, $N = 32{,}920$						

Note: For all three models the reference category is Less than $30,000. Bolded values are significant at $p < .05$.

As shown in Table 23, a series of logistic regression analysis models were used to analyze the relationship between total 2016 personal income and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents. For First Nations respondents (N = 461,720), the likelihood of suicidal ideation during the lifetime was increased when respondents had a total 2016 personal income of $10,000 to $19,999. ($10,000 to $19,999: OR = 1.33, p = 0.017, 95% CI [1.05, 1.68]). For respondents that had a total 2016 personal income of $20,000 to $29,999, $30,000 to $39,999, $40,000 to $49,999, $50,000 to $69,999, and $70,000 and over, the likelihood of suicidal ideation during their lifetime decreased. ($20,000 to $29,999: OR = .76, p = 0.048, 95% CI [.57, .99], $30,000 to $39,999: OR = .65, p = 0.007, 95% CI [.48, .89], $40,000 to $49,999: OR = .51, p < 0.001, 95% CI [.37, .71], $50,000 to $69,999: OR = .54, p < 0.001, 95% CI [.40, .74], $70,000 and over: OR = .37, p < 0.001, 95% CI [.27, .51]). For respondents that had a total 2016 personal income of $5,000 to $9,999, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

For Inuit respondents (N = 33,810), the likelihood of suicidal ideation during the lifetime was increased when respondents had a total 2016 personal income of $5,000 to $9,999. ($5,000 to $9,999: OR = 1.52, p = 0.032, 95% CI [1.03, 2.25]). For respondents that had a total 2016 personal income of $30,000 to $39,999 and $70,000 and over, the likelihood of suicidal ideation during their lifetime decreased. ($30,000 to $39,999: OR = .62, p = 0.034, 95% CI [.40, .96], $70,000 and over: OR = .51, p < 0.001, 95% CI [.34, .77]). For respondents that had a total 2016 personal income of $10,000 to $19,999, $20,000 to $29,999, $40,000 to $49,999, and $50,000 to $69,999, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

Table 23. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Total 2016 Personal Income						
Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
$5,000 to $9,999	1.30	1.71	.087	.20	.96	1.76
$10,000 to $19,999	**1.33**	**2.38**	**.017**	**.16**	**1.05**	**1.68**
$20,000 to $29,999	**.76**	**-1.98**	**.048**	**.10**	**.57**	**.99**
$30,000 to $39,999	**.65**	**-2.69**	**.007**	**.10**	**.48**	**.89**
$40,000 to $49,999	**.51**	**-3.99**	**.001**	**.08**	**.37**	**.71**
$50,000 to $69,999	**.54**	**-3.86**	**.001**	**.08**	**.40**	**.74**
$70,000 and over	**.37**	**-6.25**	**.001**	**.05**	**.27**	**.51**
Intercept	**.31**	**-12.40**	**.001**	**.02**	**.26**	**.37**
Model Wald $\chi^2 = 118.09$, $p < .001$, $N = 461{,}720$						
Model 2 – Inuit						
$5,000 to $9,999	**1.52**	**2.14**	**.032**	**.30**	**1.03**	**2.25**
$10,000 to $19,999	1.23	1.28	.200	.20	.89	1.70
$20,000 to $29,999	.91	-0.48	.634	.17	.63	1.32
$30,000 to $39,999	**.62**	**-2.12**	**.034**	**.13**	**.40**	**.96**
$40,000 to $49,999	.74	-1.21	.228	.18	.46	1.20
$50,000 to $69,999	.93	-0.30	.763	.19	.62	1.41
$70,000 and over	**.51**	**-3.18**	**.001**	**.10**	**.34**	**.77**
Intercept	**.31**	**-9.91**	**.001**	**.03**	**.24**	**.39**
Model Wald $\chi^2 = 35.78$, $p < .001$, $N = 33{,}810$						
Model 3 – Métis						
$5,000 to $9,999	1.55	1.96	.050	.35	1.00	2.42
$10,000 to $19,999	1.31	1.42	.155	.25	.90	1.92
$20,000 to $29,999	1.23	1.05	.292	.24	.83	1.81
$30,000 to $39,999	**.58**	**-2.33**	**.020**	**.13**	**.37**	**.91**
$40,000 to $49,999	**.52**	**-2.15**	**.031**	**.15**	**.29**	**.94**
$50,000 to $69,999	.67	-1.86	.063	.14	.43	1.02
$70,000 and over	**.30**	**-5.19**	**.001**	**.06**	**.19**	**.48**
Intercept	**.31**	**-9.91**	**.001**	**.03**	**.24**	**.39**
Model Wald $\chi^2 = 83.97$, $p < .001$, $N = 259{,}940$						

Note: For all three models the reference category is Less than $5,000. Bolded values are significant at $p < .05$.

For Métis respondents ($N = 259{,}940$), the likelihood of suicidal ideation during the lifetime was decreased when respondents had a total 2016 personal income of $30,000 to $39,999, $40,000 to $49,999, and $70,000 and over. ($30,000 to $39,999: OR = .58, $p = 0.020$,

95% CI [.37, .91], $40,000 to $49,999: OR = .52, p = 0.031, 95% CI [.29, .94], $70,000 and over: OR = .30, p < 0.001, 95% CI [.19, .48]). For respondents that had a total 2016 personal income of $5,000 to $9,999, $10,000 to $19,999, $20,000 to $29,999, and $50,000 to $69,999, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

Housing

For housing, respondents were asked to rate their level of satisfaction with their housing conditions. Of those who answered the question, 7.7% (n = 68,200) reported being dissatisfied, 2.3% (n = 20,650) reported being neither satisfied nor dissatisfied, 47.1% (n = 416,820) reported being satisfied, and 40.2% (n = 355,860) reported being very satisfied. Refer to Table 6 for a further breakdown of housing satisfaction by Indigenous group. The most comparable response between Indigenous groups for housing satisfaction was for the satisfied response. Of those, 47.3% (n = 242,890) First Nations, 48.8% (n = 19,990) Inuit, and 46.7% (n = 134,150) Métis reported being satisfied with their housing. The response with the greatest variation between Indigenous groups for housing satisfaction was for the very satisfied response. Of those, 39.2% (n = 201,020) First Nations, 21.4% (n = 8,760) Inuit, and 44.7% (n = 128,460) Métis reported being very satisfied with their housing. Refer to Table 12 for a further breakdown of housing satisfaction by Indigenous groups.

As shown in Table 24, a series of logistic regression analysis models were used to analyze the relationship between housing condition satisfaction level and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents. It was found for First Nation (N = 487,520) and Métis (N = 276,240) respondents that the likelihood of experiencing suicidal ideation during the lifetime was increased for all housing condition satisfaction levels. For First Nations, the likelihood increased for being satisfied,

neither satisfied nor dissatisfied, dissatisfied, and very dissatisfied. (Satisfied: OR = 1.56, p < 0.001, 95% CI [1.33, 1.83], Neither satisfied nor dissatisfied: OR = 2.29, p = 0.003, 95% CI [1.32, 3.97], Dissatisfied: OR = 2.75, p < 0.001, 95% CI [2.06, 3.68], Very dissatisfied: OR = 3.24, p < 0.001, 95% CI [2.22, 4.73]). For Métis, the likelihood increased for being satisfied, neither satisfied nor dissatisfied, dissatisfied, and very dissatisfied. (Satisfied: OR = 1.45, p < 0.001, 95% CI [1.60, 1.81], Neither satisfied nor dissatisfied: OR =5.47, p < 0.001, 95% CI [3.06, 9.78], Dissatisfied: OR = 3.32, p < 0.001, 95% CI [2.22, 4.97], Very dissatisfied: OR = 8.18, p < 0.001, 95% CI [3.99, 16.74]).

Table 24. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Housing Conditions – Satisfaction Level

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Satisfied	**1.56**	**5.47**	**.001**	**.12**	**1.33**	**1.83**
Neither satisfied nor dissatisfied	**2.29**	**2.97**	**.003**	**.64**	**1.32**	**3.97**
Dissatisfied	**2.75**	**6.90**	**.001**	**.40**	**2.06**	**3.68**
Very dissatisfied	**3.24**	**6.08**	**.001**	**.62**	**2.22**	**4.73**
Intercept	**.17**	**-27.80**	**.001**	**.01**	**.15**	**.19**
Model Wald $\chi^2 = 77.34$, $p < .001$, $N = 487{,}520$						
Model 2 – Inuit						
Satisfied	1.05	0.42	.673	.13	.81	1.36
Neither satisfied nor dissatisfied	1.02	0.13	.895	.22	.66	1.58
Dissatisfied	**1.98**	**4.50**	**.001**	**.30**	**1.47**	**2.67**
Very dissatisfied	**2.26**	**3.49**	**.001**	**.53**	**1.43**	**3.58**
Intercept	**.23**	**-13.74**	**.001**	**.02**	**.19**	**.28**
Model Wald $\chi^2 = 37.73$, $p < .001$, $N = 36{,}540$						
Model 3 – Métis						
Satisfied	**1.45**	**3.26**	**.001**	**.16**	**1.60**	**1.81**
Neither satisfied nor dissatisfied	**5.47**	**5.75**	**.001**	**1.62**	**3.06**	**9.78**
Dissatisfied	**3.32**	**5.86**	**.001**	**.68**	**2.22**	**4.97**
Very dissatisfied	**8.18**	**5.75**	**.001**	**2.98**	**3.99**	**16.74**
Intercept	**.13**	**-24.26**	**.001**	**.01**	**.11**	**.16**
Model Wald $\chi^2 = 86.48$, $p < .001$, $N = 276{,}240$						

Note: For all three models the reference category is Very satisfied. Bolded values are significant at $p < .05$

For Inuit respondents ($N = 36,540$), the likelihood of experiencing suicidal ideation during the lifetime was increased for those who were dissatisfied or very dissatisfied with their housing condition satisfaction levels. (Dissatisfied: OR = 1.98, p < 0.001, 95% CI [1.47, 2.67], Very dissatisfied: OR = 2.26, p < 0.001, 95% CI [1.43, 3.58]). For respondents that were satisfied and neither satisfied nor dissatisfied, there was no statistically significant relationship to the lifetime likelihood of suicidal ideation.

As shown in Table 25, a series of logistic regression analysis models were used to analyze the relationship between housing condition satisfaction level and the likelihood of experiencing suicidal ideation during the last 12 months in First Nations, Inuit, and Métis respondents. For First Nation respondents ($N = 487,370$), the likelihood of experiencing suicidal ideation during the last 12 months was increased for those who were satisfied, dissatisfied, and very dissatisfied with their housing condition satisfaction levels. (Satisfied: OR = 1.85, $p <$ 0.001, 95% CI [1.42, 2.41], Dissatisfied: OR = 2.51, $p < 0.001$, 95% CI [1.59, 3.95], Very dissatisfied: OR = 4.62, $p < 0.001$, 95% CI [2.75, 7.78]). For respondents that were Neither satisfied nor dissatisfied, there was no statistically significant relationship to the likelihood of suicidal ideation during the last 12 months. For Inuit respondents ($N = 36,530$), the likelihood of experiencing suicidal ideation during the last 12 months was increased for those who were Dissatisfied with their housing condition satisfaction levels. (Dissatisfied: OR = 1.72, $p = 0.034$, 95% CI [1.04, 2.86]). For respondents that were satisfied, neither satisfied nor dissatisfied, or very dissatisfied, there was no statistically significant relationship to the likelihood of suicidal ideation during the last 12 months. For Métis respondents ($N = 276,240$), the likelihood of experiencing suicidal ideation during the last 12 months was increased for those who were

neither satisfied nor dissatisfied, dissatisfied, or very dissatisfied with their housing condition satisfaction levels. (Neither satisfied nor dissatisfied: OR = 7.01, $p < 0.001$, 95% CI [2.94, 16.70], Dissatisfied: OR = 3.53, $p < 0.001$, 95% CI [1.69, 7.36], Very dissatisfied: OR = 10.68, $p < 0.001$, 95% CI [4.37, 26.09]). For Satisfied respondents, there was no statistically significant relationship to the likelihood of suicidal ideation during the last 12 months.

Table 25. Logistic Regression Predicting Suicidal Ideation (12 months) for Indigenous Respondents by Housing Conditions – Satisfaction Level

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Satisfied	**1.85**	**4.59**	**.001**	**.25**	**1.42**	**2.41**
Neither satisfied nor dissatisfied	1.04	0.13	.894	.35	.54	2.01
Dissatisfied	**2.51**	**3.96**	**.001**	**.58**	**1.59**	**3.95**
Very dissatisfied	**4.62**	**5.77**	**.001**	**1.22**	**2.75**	**7.78**
Intercept	**.04**	**-29.14**	**.001**	**.00**	**.03**	**.05**
Model Wald $\chi^2 = 45.22$, $p < .001$, $N = 487{,}370$						
Model 2 – Inuit						
Satisfied	1.05	0.23	.818	.24	.67	1.65
Neither satisfied nor dissatisfied	.91	-0.24	.811	.32	.46	1.82
Dissatisfied	**1.72**	**2.12**	**.034**	**.44**	**1.04**	**2.86**
Very dissatisfied	.96	-0.11	.911	.33	.48	1.91
Intercept	**.06**	**-14.93**	**.001**	**.01**	**.04**	**.08**
Model Wald $\chi^2 = 7.44$, $p = 0.114$, $N = 36{,}530$						
Model 3 – Métis						
Satisfied	**1.80**	**2.87**	**.004**	**.37**	**1.20**	**2.71**
Neither satisfied nor dissatisfied	**7.01**	**4.40**	**.001**	**3.10**	**2.94**	**16.70**
Dissatisfied	**3.53**	**3.37**	**.001**	**1.32**	**1.69**	**7.36**
Very dissatisfied	**10.68**	**5.20**	**.001**	**4.86**	**4.37**	**26.09**
Intercept	**.02**	**-22.60**	**.001**	**.00**	**.02**	**.03**
Model Wald $\chi^2 = 47.09$, $p < .001$, $N = 276{,}240$						

Note: For all three models the reference category is Very satisfied. Bolded values are significant at $p < .05$.

Residential School System

Respondents were asked if they were ever a student at a residential school or if any members of their family ever attended a residential school. Of those who answered the question, 6.3% (*n* = 42,750) reported having been a student at a residential school. Regarding family member attendance at a residential school, 19% (*n* = 155,670) reported their parents having attended a residential school, 32.6% (*n* = 213,270) reported their grandparents attending a residential school, 3.8% (*n* = 23,270) reported their current spouse or partner attending a residential school, and 30.6% *(n* = 231,650) reported other relatives (including brothers, sisters, aunts, uncles, cousins) attending a residential school. The most comparable response between Indigenous groups regarding family members that attended a residential school was for respondents' current spouses or partners. Of those, 4.1% (*n* = 14,170) First Nations, 11.1% (*n* = 2,940) Inuit, and 2.1% (*n* = 4,590) Métis reported their current spouses or partners having attended a residential school. The response with the greatest variation between Indigenous groups regarding family members that attended a residential school was for respondents' other relatives. Of those, 37.9% (*n* = 166,570) First Nations, 57.7% (*n* = 19,890) Inuit, and 13.3% (*n* = 32,640) Métis reported other relatives having attended a residential school. Refer to Table 12 for a further breakdown of residential school attendance by Indigenous groups.

As shown in Table 26, a series of logistic regression analysis models were used to analyze the relationship between residential school attendance and the likelihood of experiencing suicidal ideation during the lifetime in First Nations, Inuit, and Métis respondents.
For First Nation respondents (*N* =232,270), the likelihood of experiencing suicidal ideation during the lifetime was increased for those whose Grandparents attended a residential school.

(Grandparents: OR = 1.45, $p = 0.002$, 95% CI [1.14, 1.84]). There was no statistically significant relationship for lifetime suicidal ideation and respondents who had parents, current spouse/partner, or other relatives that attended a residential school. For Inuit respondents (N = 17,470), the likelihood of experiencing suicidal ideation during the lifetime was increased for those who had other relatives that attended a residential school. (Other relatives: OR = 2.10, $p <$ 0.001, 95% CI [1.48, 2.98]). There was no statistically significant relationship for lifetime suicidal ideation and respondents who had parents, grandparents, or current spouse/partner that attended a residential school. For Métis respondents, there was no statistically significant relationship for lifetime suicidal ideation and parents, grandparents, current spouse/partner, or other relatives that attended a residential school.

Table 26. Logistic Regression Predicting Suicidal Ideation (Lifetime) for Indigenous Respondents by Residential School Attendance

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Parents	.98	-0.10	.923	.15	.73	1.32
Grandparents	**1.45**	**3.11**	**.002**	**.17**	**1.14**	**1.84**
Current spouse/partner	1.07	0.23	.817	.32	.59	1.94
Other relatives	1.12	0.87	.385	.15	.86	1.46
Intercept	**.16**	**-21.20**	**.001**	**.01**	**.14**	**.19**
Model Wald $\chi^2 = 14.13$, $p = 0.006$, $N = 232{,}270$						
Model 2 – Inuit						
Parents	1.04	.24	.814	.17	.74	1.45
Grandparents	1.24	.23	.233	.23	.86	1.80
Current spouse/partner	.65	.14	.056	.14	.42	1.01
Other relatives	**2.10**	**.37**	**.001**	**.37**	**1.48**	**2.98**
Intercept	**.15**	**.02**	**.001**	**.02**	**.11**	**.20**
Model Wald $\chi^2 = 25.98$, $p < .001$, $N = 17{,}470$						
Model 3 – Métis						
Parents	1.59	1.49	.136	.50	.86	2.96
Grandparents	1.24	1.11	.268	.24	.84	1.83

Current spouse/partner	.45	-1.24	.215	.28	.12	1.58
Other relatives	1.37	1.45	.148	.30	.89	2.13
Intercept	**.13**	**-20.30**	**.001**	**.01**	**.11**	**.16**
Model Wald $\chi^2 = 17.09$, $p < .004$, $N = 117{,}020$						

Note: For all three models the reference category is No residential school experience. Bolded values are significant at $p < .05$.

Table 27. Logistic Regression Predicting Suicidal Ideation (12 months) for Indigenous Respondents by Residential School Attendance

Variable	Odds Ratio	z	P > | z |	std.err.	[95% Conf.	Interval]
DV = Suicidal Ideation (Lifetime)						
Model 1 – First Nations						
Parents	.67	-1.28	.202	.20	.37	1.23
Grandparents	**1.92**	**3.39**	**.001**	**.37**	**1.31**	**2.81**
Current spouse/partner	1.72	1.23	.220	.77	.72	4.14
Other relatives	.90	-0.40	.689	.23	.54	1.50
Intercept	**.04**	**-22.15**	**.001**	**.00**	**.03**	**.05**
Model Wald $\chi^2 = 15.37$, $p = .004$, $N = 232{,}190$						
Model 2 – Inuit						
Parents	1.10	0.31	.757	.36	.58	2.09
Grandparents	1.47	1.26	.208	.46	.80	2.72
Current spouse/partner	.83	-0.45	.653	.33	.38	1.82
Other relatives	1.65	1.61	.107	.51	.89	3.06
Intercept	**.03**	**-14.48**	**.001**	**.00**	**.02**	**.05**
Model Wald $\chi^2 = 6.88$, $p < .142$, $N = 17{,}470$						
Model 3 – Métis						
Parents	-	-	-	-	-	-
Grandparents	-	-	-	-	-	-
Current spouse/partner	-	-	-	-	-	-
Other relatives	-	-	-	-	-	-
Intercept	-	-	-	-	-	-

Note: For all three models the reference category is No residential school experience. Bolded values are significant at $p < .05$.

As shown in Table 27, a series of logistic regression analysis models were used to analyze the relationship between residential school attendance and the likelihood of experiencing

suicidal ideation during the last 12 months in First Nations, Inuit, and Métis respondents. For First Nations respondents (N = 232,190), the likelihood of experiencing suicidal ideation during the last 12 months was increased for those whose Grandparents attended a residential school. (Grandparents: OR = 1.92, $p < 0.001$, 95% CI [1.31, 2.81]). There was no statistically significant relationship for the last 12 months and suicidal ideation in family members that attended a residential school. For Inuit respondents, there was no statistically significant relationship for the last 12 months and suicidal ideation in family members that attended a residential school. Data for Métis respondents and family members who attended a residential school were not releasable from the RDC.

DISCUSSION

Analyses of the 2017 APS determined the lifetime prevalence rate of suicidal ideation of Indigenous peoples living off-reserve or in urban areas to be 18.9%, which is higher than the 12% prevalence rate in the general population in Canada (Public Health Agency of Canada, 2023). Similarly, a higher rate (5.6%) of Indigenous respondents experienced suicidal ideation during the past 12 months, compared to 2.6% in the general population (Public Health Agency of Canada, 2023). It is important to note that there were also differences relating to the endorsement of lifetime suicidal ideation among the different Indigenous groups, with 22.7% of Inuit, 20% of First Nations, and 16.4% of Métis respondents endorsing lifetime suicidal ideation. A similar pattern was identified for experiencing suicidal ideation within the last 12 months, with 6.6% of Inuit, 6% of First Nations, and 4.6% of Métis endorsing this. Compared to the general population in Canada, this demonstrates that the rates for both lifetime and previous 12 months continue to be significantly greater for the Indigenous population.

Protective Factors to Suicidal ideation in Indigenous Peoples

Language

Findings revealed that the hypothesized protective factor of understanding or speaking an Indigenous language had the inverse effect on suicidal ideation. The study found that rather than protecting against suicidal thoughts, being able to understand or speak an Indigenous language was associated with a higher risk of experiencing suicidal thoughts over a lifetime for First Nations, Inuit, and Métis individuals. Specifically, First Nations respondents who understood or spoke an Indigenous language were 23% more likely to have experienced suicidal thoughts during their lifetime. For Inuit, the likelihood was 56% higher; for Métis, it was 29% higher. Interestingly, Inuit were the only group found to experience significantly higher rates of suicidal

thoughts in the past 12 months, with those who understood or spoke an Indigenous language being nearly three times more likely to report such thoughts. These findings deviate from research that reports that speaking an Indigenous language moderates Individuals from experiencing suicidal ideation (Hallet et al., 2007; McIvor et al., 2009; ITK, 2016; Chandler & Lalonde, 1998). Recently, a paper by White (2023) found a negative association between language use and perceived mental health. The implications of these partial findings will be discussed later.

Sense of Belonging

Partial findings were observed for the logistic regression conducted on the four sense of belonging variables. First Nations and Métis who answered strongly agree/agree to feeling a sense of belonging to their own Indigenous group identity were 23% and 36% less likely to experience suicidal thoughts during their lifetime, respectively. First Nations respondents who answered strongly agree/agree to whether they feel good about their own Indigenous group identity during the lifetime, in addition to if they were active in Indigenous group events and activities during the last 12 months, were found to be 46% and 26% less likely to experience suicidal thoughts. Results were the opposite for First Nations respondents who answered strongly agree/agree to having an interest in discovering more about their Indigenous history, traditions, and cultures. Unexpectedly, they were found to be 26% more likely to experience suicidal thoughts during their lifetime. Métis respondents who answered neither agree nor disagree to whether they are active in Indigenous group events and activities were 37% less likely to experience suicidal thoughts during the lifetime. Four of the five analyses performed on the sense of belonging variables supported the hypothesis that a sense of belonging would have a buffering effect on Indigenous peoples against experiencing suicidal ideation, with only one

deviating from what was expected. These results largely support findings that demonstrate that experiencing a greater sense of belonging is related to a decreased likelihood of suicidal ideation and suicide in Indigenous populations (Gone et al., 2019; Hill, 2009). Analyses performed on the sense of belonging variables for Inuit were largely insignificant, so this is an area for future research. As with the case for language, the implications of these partial findings will be discussed later.

Cultural Activities

Mixed results were revealed for engagement with cultural activities and the association with suicidal ideation. For First Nations and Métis who engaged in 2 to 4 traditional activities, there was an increased likelihood of experiencing suicidal ideation during the lifetime. In contrast, Inuit who engaged in 1 activity had a decreased likelihood of suicidal ideation during the lifetime (OR = .66, 95% [CI .49, .88]). In the literature, few studies have examined whether engagement with cultural activities decreases suicidal ideation in Indigenous peoples. For those that have, the results have been mixed.

Summary of Protective Factors

The hypothesized protective factors in this study found only partial support for buffering Indigenous peoples against suicidal ideation. Researchers have put forth one possible explanation to explain these unanticipated findings better. Specifically, it is hypothesized that ongoing systemic racism and discrimination have led to internalized oppression for many Indigenous peoples. This is thought to indirectly impact levels of suicidal ideation within this particular population through things such as residential school experiences, socioeconomic disparities, and lack of appropriate and culturally safe services.

Residential schools are considered to have been one of the most notorious forms of racism at the institutional level (NCCIH, 2014). In a study by McQuaid et al. (2017), it was found that exposure of one previous familial generation to attendance at a residential school was associated with an increased risk for lifetime suicidal ideation (OR = 1.46, 95% CI [1.16, 1.84]). This result is similar to the findings within the present study that revealed that for First Nations and Inuit respondents, having a family member who attended residential school during their lifetime was associated with an increased likelihood of experiencing suicidal ideation.

The role of income is important as Indigenous populations see lower incomes than non-Indigenous populations, with a difference of 25% in 2015 (Hajizadeh et al., 2019; Statistics Canada, 2019). In a study by Lemstra et al. (2009), it was found that Indigenous cultural status is currently associated with economic disparity and impoverished social conditions which act as risk factors for suicidal ideation. For instance, 55.2% of the Indigenous sample in their study had an income of less than $25,000 compared to 18.7% of Caucasians (Lemstra et al., 2009). This number is even greater in the present study, with 70.1% of Indigenous respondents reporting an income of less than $30,000. When further subdivided by Indigenous group, it was found that First Nations, Inuit, and Métis with an income of less than $30,000 were 72.6%, 74%, and 64.1%, respectively.

There is an abundance of research that indicates a lack of appropriate services for Indigenous peoples in Canada. For example, a review done by Marrone (2007) on disparities in healthcare services among Indigenous populations found that healthcare access and utilization rates were substantially lower for this population. One reason is that a disregard for Indigenous perspectives continues in contemporary mental health research (Nelson & Wilson, 2017; Fritzsche et al., 2011; Nelson, 2012; Waldram, 2004). Another reason is that the language used

by healthcare providers can be incompatible with an Indigenous understanding of health and wellness. For example, some “Indigenous people prefer to talk in terms of imbalance or disharmony in the circle of -mind-body-emotions-spirit that defines a healthy person and a healthy community” (Royal Commission on Aboriginal Peoples, 1995). Lastly, the consequences of racism have caused emotional and social harm to Indigenous peoples, which has resulted in many losing trust in the primary medical system (NCCIH, 2014).

The harms and suffering experienced by Indigenous peoples in Canada, which are relevant to the protective factors in this study, have likely been profoundly shaped by the lasting impacts of colonization. This is evident in the widespread reports of racism and discrimination within the healthcare system (Nguyen et al., 2020; Loppie & Wien, 2022; Statistics Canada, 2024). For instance, approximately one in five Indigenous people report experiencing unfair treatment, racism or discrimination from healthcare professionals (Statistics Canada, 2024). These experiences manifest in longer wait times, disrespectful treatment, and fewer referrals for services, all of which contribute to poorer health outcomes for this population (NCCIH, 2014; Vukic et al., 2012; Reading & Wien, 2009).

Internalized oppression is defined as the sustained psychological effect of the abuse of power (Small, 2014). It is posited that populations that have been colonized face persistent and continued injustices, which over time can manifest as identity confusion and feelings of inferiority (David & Derthick, 2014, p. 8; Fanon, 1965). Indeed, Indigenous peoples in Canada face persistent injustices from colonization, resulting in tremendous harm to this population (Loppie & Wien, 2022). These injustices include but are not limited to the loss of language, land, and cultural and traditional teachings, systemic racism and discrimination, residential school experience, socioeconomic disparities, and lack of appropriate and culturally safe services

(Khawaja, 2021; Brown et al., 2021; Matheson et al., 2022; NCCIH, 2014; Lemstra et al., 2019; Marrone, 2007). Systemic racism contributes to internalized oppression in Indigenous peoples in that this population may begin to believe harmful stereotypes about their specific Indigenous groups. For instance, that they are uneducated, are more likely to use drugs and alcohol, are unable to hold a job, or are dependent on the government for handouts (Gonzalez et al., 2014; NCCIH; 2014; Backhouse, 1999; De Leeuw et al., 2011). Internalized oppression is a possible explanation for this study's opposite findings for protective factors. For instance, a paper by White (2023) found that language use had a significant but negative direct effect on mental health. This finding is supported by Capone and colleagues (2010), in which it was revealed that the ability to understand or speak an Aboriginal language was negatively associated with well-being at the community level. This provides some clarity on why language was positively associated with suicidal ideation in the present study. Unfortunately, there is little to no literature or research on why experiencing a sense of belonging or engaging in cultural activities would increase the likelihood of suicidal ideation. Conversely, the research overwhelmingly supports the buffering effect that a sense of belonging and engagement with cultural activities has on individuals who have suicidal thoughts (Hill, 2009; Gill et al., 2023; Bogic et al., 2024; Chandler & Lalonde, 1998; Sjoblom et al., 2022; DeCou et al., 2013). One possible explanation for the reversed findings identified for sense of belonging and engagement with cultural activities is that Indigenous people who are actively contemplating suicide may have a greater interest in learning about their history, traditions, and cultures as a means of coping (Barker et al., 2017; Kirmayer et al., 2003; Sjoblom et al., 2022; DeCou et al., 2013). It is, however, imperative to consider additional factors that may influence the negative relationships observed.

Risk Factors for Suicidal ideation in Indigenous Peoples

Alcohol Use

An unexpected finding revealed that the hypothesized risk factor for alcohol consumption was reversed to what was expected. For instance, as First Nations and Métis alcohol consumption frequency increased, the less likely they were to experience suicidal ideation during their lifetime. Specifically, as alcohol consumption increased from 2 to 3 times a month for First Nations (OR = .69, 95% CI [.53, .91]) to 4 to 6 times a week (OR = .48, 95% [CI .31, .74]), a decrease in the likelihood of suicidal ideation was observed. For Métis, a similar pattern was observed as alcohol consumption increased from once a week (OR = .64, 95% [CI .44, .93]) to 2 to 3 times a week (OR = .54, 95% [CI .39, .76]). These results are inconsistent with the literature that demonstrates that alcohol abuse increases instances of suicidal ideation in Indigenous peoples (Kirmayer et al., 2000; Kirmayer et al., 2007; Stewart et al., 2011). One possible explanation for these findings comes from the tension reduction hypothesis, which posits that alcohol use may be one way to cope with tension and difficult emotions (Conger, 1956; Cooper et al., 1992; Holahan et al., 2001). Indigenous people's chronic exposure to trauma resulting from harmful colonial policies and practices has manifested in symptoms such as, but not limited to, increased mental health disorders (i.e., anxiety and depression), grief, addictions, and self-destructive behaviours (Aguiar & Halseth, 2015; Bombay et al., 2009). Due to these past and ongoing challenges, it would make sense that self-medicating with alcohol could serve as a coping strategy to manage tension and difficult emotions.

Drug Use

Findings revealed that drug use was associated with an increased likelihood by all three Indigenous groups for experiencing suicidal ideation both during their lifetime and the last 12

months. This is contradictory to other research, given that drug use was revealed to be the greatest predictor of suicidal ideation within a sample of Indigenous youth (For the Cedar Project et al., 2009; Yoder et al., 2006). In a special report done by the Royal Commission on Indigenous Peoples on suicide for this population, it was noted that the damaging effects of chronic and hard drug use have become so frequent in many Indigenous communities that drug use is seen as a form of slow suicide (Royal Commission on Indigenous Peoples, 1995; For the Cedar Project et al., 2009). These results speak to the disproportionate burden of harm that Indigenous peoples in Canada face regarding substance use (Urbanoski, 2017). The proportion of Indigenous peoples who reported using prescription drugs or street drugs in the last 12 months was 5.3%. When further subdivided by Indigenous group, it was found that First Nations, Inuit, and Métis who used prescription drugs or stress drugs in the last 12 months were 6%, 3.2%, and 4.4%, respectively.

Mental Health

With regard to respondents' self-reported mental health status, it was found that as perceived mental health status (e.g., excellent to fair) decreased, the likelihood of suicidal ideation during the lifetime increased. Similar to findings in the current study, Adebayo (2024) found that respondents with poor perceived mental health have a higher likelihood of experiencing suicidal ideation during the last 12 months. However, the results were not statistically significant. It has been noted that mental health problems, as demonstrated by outcomes that include suicide, emotional distress, anxiety, and depression and anxiety are more significant for Indigenous peoples than those of the general population (Nelson & Wilson, 2017; Kirmayer et al., 2009; Graham et al., 2021; Kumar & Tjepkema, 2019). A possible explanation for the higher rates of suicide, depression, and substance use in Indigenous communities is

believed to be the impact historical trauma has had on this population (Marrone, 2007). Historical trauma is characterized as symptoms that are born out of emotional and psychological trauma that has been transmitted over the generations as a direct result of colonialism (Marrone, 2007; Newbold, 1998; Tester & McNicholl, 2004). While the APS survey used in the current study included information on Indigenous peoples living in urban areas, it is essential to note that many smaller and remote communities have limited or no access to mental health services (Boksa et al., 2015). As such, it is reasonable to suspect that this would harm Individuals' mental health status living within those areas, placing them at a greater likelihood of experiencing suicidal ideation.

Mood & Anxiety Disorders

Mood and anxiety disorders had some of the strongest odds ratios in the current study. For instance, it was found for all three Indigenous groups that the likelihood of experiencing suicidal ideation during the lifetime was increased for those who had a mood or anxiety disorder. Surprisingly, all three Indigenous groups had an even greater likelihood of experiencing suicidal ideation if they had a mood or anxiety disorder during the last 12 months. These findings are supported by work done by Kumar & Nahwegahbow (2016), which reported the prevalence rates of suicidal ideation in Indigenous peoples as being greater for those who had a mood or anxiety disorder than for those who did not. For specific mood disorders, May & Klonsky (2016) found depression (d = .85) appeared to be one of the strongest predictors of suicidal ideation. Concerning bipolar disorder, a study by Valtonen & colleagues (2005) found that suicidal ideation is highly prevalent in bipolar disorder, with 61% of psychiatric patients reporting experiencing suicidal ideations. Anxiety disorders have also been noted as increasing the risk of individuals experiencing suicidal ideations. Sareen et al. (2005a) demonstrated that pre-existing

anxiety disorders are an independent risk factor for suicidal ideation (AOR = 2.29, 95% CI [1.85, 2.82]). The findings of this study and in the literature are clear that Indigenous peoples are at a greater risk of experiencing suicidal ideations if they have a mood or anxiety disorder.

Health Status

Similar to the results for mental health status, respondents who reported poorer self-perceived health status (e.g., excellent to fair) experienced a greater likelihood of suicidal ideation during their lifetime. Numerous articles state that the root causes of poor health (i.e., the social determinants of health) are responsible for poor health (Marmot, 2007; King et al., 2009). These foundational determinants include income, education, employment, living conditions, social support, and access to primary medical care (King et al., 2009). However, the health of Indigenous peoples is also adversely impacted by racism and discrimination (NCCIH, 2014), food insecurity (Shafiee et al., 2022), and loss of traditional culture (i.e., connection with land, traditional medicine, spirituality, traditional foods, and traditional activities) (Kirmayer et al., 2003; McIvor et al., 2009). Moreover, in Canada, life expectancy remains lower in the Indigenous population than in the non-Indigenous population (Tjepkema et al., 2019).

Income

My findings supported literature that posits that in the general population, socioeconomic disadvantage is related to greater rates of suicide (Kirmayer et al., 2007; Agerbo, 2003; Hawton et al., 2001; Qin et al., 2003). First Nation respondents who had a total 2016 personal income of $10,000 to $19,999 were more likely to experience suicidal ideation during their lifetime. For Inuit respondents, having an individual income of $5,000 to $9,999 was associated with an increased likelihood of experiencing suicidal ideation during their lifetime. Analyses of Métis respondents showed no significant results between experiencing suicidal ideation during the

lifetime and total 2016 personal income. A study by Lemstra et al. (2009) revealed that Indigenous cultural status was associated with poverty and functioned as a pathway to suicidal ideation. For instance, 55.2% of their Indigenous sample had an income of $25,000 or less compared with 18.7% of Caucasians with a similar income. Surprisingly, there is scant research evaluating the relationship between income and suicidal ideation in Canada for the general population, so making comparisons between the two populations is challenging. The available research tends to focus on specific groups (i.e., youth, elderly), geographic regions (i.e., East Asia), or low and middle-income families and the effect that income has on suicidal ideation (Farrell et al., 2019; Jun Ju et al., 2016; Sueki, 2018; Lemmi et al., 2016). What is certain is that Indigenous people's total annual income is considerably lower than it is for the general population (Loppie & Wien, 2022). This disparity is due primarily to Indigenous peoples having been restricted from accessing critical socioeconomic opportunities (i.e., resources and job opportunities) essential to increasing their overall socioeconomic status (Eversole et al., 2005; Olson, 2016; NCCIH, 2017).

Housing

As expected, as satisfaction levels with housing conditions decreased, the likelihood of suicidal ideations increased during the lifetime. For instance, for all three Indigenous groups that answered being dissatisfied or very dissatisfied with their housing conditions, there was an increased likelihood of experiencing suicidal ideations during the lifetime. Safe, affordable and adequate housing is an important social determinant of health (House of Commons Canada, 2022; Reading & Halseth, 2013). Unfortunately, 18% of Indigenous people in Canada reside in housing that is inadequate, unaffordable, or unsuitable (Office of the Parliamentary Budget Officer, 2021). It has been shown that poor housing conditions are associated with a variety of

problems, including chronic illness, injuries, poor nutrition, and physical health and mental disorders (NCCIH, 2017; Public Health Agency of Canada, 2014; Guèvremont et al., 2016; Kohen et al., 2015; Wallace, 2014; Reading & Halseth, 2013). While the literature on housing satisfaction and suicidal ideation in Indigenous populations is scarce, suicidal ideation is indirectly affected related to suicidal ideation through the factors previously mentioned (Elamoshy et al., 2018; Hajizadeh et al., 2019; Marmot, 2008; Adebayo, 2024). As such, examination of the relationship between housing conditions and suicidal ideation is an area that would benefit from further research.

Residential School System

Interestingly, it was found that First Nations respondents who had grandparents who attended residential school were 45% and 92% more likely to experience suicidal thoughts during the lifetime and the last 12 months, respectively. Inuit respondents who had other relatives who attended residential school were found to have 2.1 times the odds of experiencing suicidal thoughts than those who did not have relatives that attended residential school. Similar results are reported by Elias et al. (2012) who found that having had a parent or grandparents who attended residential school was associated with a history of suicidal thoughts and attempts. Analyses performed on the residential school attendance variables for Métis were largely insignificant. This is an unexpected finding, given that the Métis were not exempt from experiencing the devastating impact of residential schools (TRC, 2015b).

Summary of Risk Factors

The harms and suffering experienced by Indigenous peoples in Canada, particularly the risk factors in this study, are deeply rooted in the detrimental effects of colonization. For instance, Inuit were relocated to southern hospitals for treatment of tuberculosis, where they

received substandard compared to non-Indigenous peoples (Lux, 2016; NCCIH, 2019). Another stark example is the coerced and forced sterilization of Indigenous women, which has caused profound physical, mental, familial, and community harm (Boyer & Bartlett, 2017; Webb, 2024). Such experiences illustrate why many Indigenous peoples distrust the healthcare system and continue to face persistent health inequities (Vogel, 2015). Even when healthcare services are available, barriers such as geographic location and challenges navigating the system further impede access (Marrone et al., 2007; Nguyen et al., 2020; Nelson & Wilson, 2017; Davy et al., 2016). These are but a few of the hurdles that Indigenous peoples encounter on their journey to health and wellness (Blackstock, 2008; Lavallee & Poole, 2010). These systemic hurdles have contributed to the increased risk of suicidal ideation among Indigenous peoples, as demonstrated in this study. It is clear that these risk factors are deeply influenced by the lasting impacts of colonization on the Indigenous population in Canada.

According to numerous scholars, research on Indigenous health and wellness has primarily been undertaken utilizing Western concepts of health, disease, and treatment (King, 2009; Wexler & Gone, 2016; Nelson & Wilson, 2017; Green, 2010; Ansloos, 2018; Rowe & Ansloos, 2024). This is problematic, given that it needs to take into consideration the cultural differences that exist between Indigenous and non-Indigenous peoples. Indigenous peoples in Canada have a unique perspective on health and wellness based on a holistic approach which emphasizes the prevention of sickness by living in balance with nature and the natural laws (Howell et al., 2016; Dapice, 2016). Unfortunately, these perspective differences have the potential to result in inadequate services for the Indigenous population (Green, 2010). In addition to the epistemological disparity between Indigenous and Western perspectives, various other barriers exist, such as income, racism and discrimination, physical environment, and lack of services

(Reading & Wien, 2009; Davy et al., 2016; NCCIH, 2014; Statistics Canada, 2024; NCCIH, 2019), subsequently making it less likely that Indigenous peoples will access services. This has caused the recognition that Indigenous health and wellness need to be approached differently (Rogers et al., 2019). In particular, it should recognize, respect, and value the importance of Indigenous epistemologies of health and well-being.

Elder Consultation

Meeting with an Elder was an important part of the TES approach undertaken in this study. This is because TES is an approach of inquiry that involves people coming together to view the world through an Indigenous lens with one eye (perspective), while the other eye sees through a Western lens (Jefferey et al., 2021). As such, I believe it was important to include the voice of an Elder in understanding the results.

I met with Elder Norman Meade that is one of the Elders-in-Residence at the University of Manitoba's Indigenous Student Centre (Magizii Agamik) to discuss the results found in the study. To ensure this work was done in a good way, the protocols for working with Elders as outlined on the University of Manitoba's Indigenous Culture and Protocol website section were closely adhered to.

During the first meeting on October 29, 2024, Elder Norman and I sat down for a little over an hour to discuss what was found regarding the prevalence rates of suicidal ideation and the mixed findings for protective and risk factors. While reporting the prevalence rates of suicidal ideation for Indigenous peoples during the lifetime and last 12 months, Elder Norman did not seem surprised about the heightened rates of suicidal ideation in this study.

During the second one-hour meeting on November 5, 2024, Elder Norman and I discussed the reversed findings that were observed for the protective factors. He explained that it is hard to pinpoint the exact cause of suicidal thoughts and that there are many factors at play that contribute to whether an individual experiences suicidal ideation. One important factor that Elder Norman noted as being particularly problematic and that increases suicidal ideation is experiencing hopelessness. He shared the example of the devastating effects of colonization on

Indigenous peoples and how it took a lot of hope away from people, resulting in a confused spirit that was out of balance and unsure about its purpose in life.

To heal, Elder Norman explained that the medicine wheel helps with all problems, it helps us stay connected and look inward. Moreover, he shared that if we want to find spiritual clarity, that we should look no further than the land.

Strengths

Three major strengths of the present study are how suicidal ideation in Indigenous peoples were examined. The first strength is that logistic regression analyses was conducted on each heterogenous Indigenous group (i.e., First Nations, Inuit, and Métis) separately as opposed to combining them together as has been the case in many previous studies. This provided important insights into the unique differences that exist within each of the groups as it pertains to suicidal ideation (Hayward et al., 2021; Smylie, 2006). The second strength of the study is that it assessed factors that are thought to be positively or negatively associated with suicidal ideation within this large dataset of off-reservation First Nation, Inuit, and Métis populations. Lastly, the third strength involved utilizing a TES approach within the present study, which is the belief that there are different ways of understanding and experiencing the world, some of which are represented by Western sciences and others by Indigenous knowledge systems (Bartlett et al., 2012). This mindful inclusion of two distinct paradigms demonstrates a commitment to engage in research practices that are consistent with a decolonized approach to research. For example, utilizing a strength-based approach to examine protective factors found to buffer Indigenous peoples against suicidal ideation is consistent with philosophies of living a good life found in many Indigenous cultures (FNICG, 2020). Furthermore, incorporating research that also examines risk factors (i.e., Western biomedical paradigm), aided in providing a more comprehensive understanding of the variables associated with suicidal ideation.

Limitations

There are several limitations to the present study. First, given the cross-sectional nature of the data, conclusions about causation will involve some degree of speculation. Cross-sectional studies analyse data from a population at a specific point in time and do not follow individuals over time (Wang & Cheng, 2020). In contrast, longitudinal studies involve following respondents over time with repeated monitoring of certain factors or health outcomes (Coggan et al., 2003). Examining alcohol use over the lifetime instead of just during the last 12 months, as was done in this study, would have provided more contextual information about respondents' drinking habits and overall risk for suicide. For example, are respondents consuming alcohol in social settings or are they binge drinking alone? Questions like these would benefit from repeated monitoring over time to more accurately gauge the risk of suicide in this population. Future research should use longitudinal designs to address these gaps.

A second limitation is that First Nations living on reserve or in settlements in certain communities in the Yukon and Northwest Territories were excluded from the APS sample. This exclusion limits the generalizability of the results to these specific communities. Future studies should aim to include these populations ensure broader applicablility of findings.

The third limitation stems to methodological differences between the APS and the Nunavut Inuit Supplement (NIS) surveys. The NIS contains Inuit respondents enrolled under the Nunavut Agreement (NA), while the 2017 APS contains data for respondents in all Indigenous groups, including the Inuit. As a results, generalizations of the findings were not possible for respondents enrolled under the NA. The fourth limitation is that the exclusion of respondents from the NIS survey there were fewer Inuit respondents being represented in comparison to First Nations and Métis respondents. This led to some analyses lacking the minimum threshold

required for release by the Research Data Centres. Addressing these methodological differences in future studies would improve the robustness of findings and better represent Inuit populations.

Lastly, it is important to interpret the mixed findings regarding protective factors with considerable caution, as some results did not align with expectations. For instance, while protective factors such as a sense of belonging and cultural engagement are generally understood to buffer against suicidal ideation, this study found inconsistencies that diverge from the broader literature. Providing this context helps to acknowledge the complexities of the findings and highlights the need for further exploration of additional factors, such as the enduring impacts of colonization, that may have influenced these results. Future research should prioritize sensitivity to these nuances to better understand and address these discrepancies.

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APPENDICES

Appendix A

Table 1. Suicidal Ideation in Indigenous Peoples

Code	Dependent Variable	Response options
SU10	Suicide - Contemplated suicide – Last 12 months	(No = 0, Yes = 1)
SU05	Suicide - Contemplated suicide – Ever	(No = 0, Yes = 1)

Table 2. Protective Factors for Suicidal Ideation in Indigenous Peoples

Code	Independent Variable	Response options
LAN05	Understand or speak an Indigenous language	(No = 0, Yes = 1)
SB05	Find out more about Indigenous history, traditions and culture	(Disagree/Strongly disagree = 0, Neither agree/disagree = 1, Strongly agree/agree = 2)
SB10	Active in Indigenous group events and activities	(Disagree/Strongly disagree = 0, Neither agree/disagree = 1, Strongly agree/agree = 2)
SB15	Feel good about own Indigenous group identity	(Disagree/Strongly disagree = 0, Neither agree/disagree = 1, Strongly agree/agree = 2)
SB20	Sense of belonging to own Indigenous group	(Disagree/Strongly disagree = 0, Neither agree/disagree = 1, Strongly agree/agree = 2)
SB	Perceived Sense of Belonging	(No sense of belonging on any measure = 0, Responded "neither" on any measure of sense of belonging = 1, Endorsed having a sense of belonging on 1 measure = 2, Endorsed having a sense of belonging on 2 measures = 3, Endorsed having a sense of belonging on 3 measures = 4, Endorsed having a sense of belonging on all 4 measures = 5)
OLA05	Hunting/Fishing/Gathering – (last 12-months)	(No = 0, Yes = 1)
OLA20	Gathered wild plants during last year – (last 12-months)	(No = 0, Yes = 1)
OLA35	Clothing/footwear – (made in last 12-months)	(No = 0, Yes = 1)
OLA50	Arts/crafts – (made in last 12-months)	(No = 0, Yes = 1)
Activity	Level of cultural activity engagement during last 12-months (composite variable)	(No activities = 0, one activity = 1, two activities = 2, three activities = 3, four activities = 4)

Table 3. Risk Factors for Suicidal Ideation in Indigenous Peoples

Code	Independent Variable	Response options
ALC10	Drank in last 12 months – Frequency	(Less than once a month = 1, Once a month = 2, 2 to 3 times a month = 3, Once a week = 5, 2 to 3 times a week = 6, Everyday = 7)
DUSE12EXN1	DV – Drug use – Last 12 months (excluding marijuana)	(Yes, used drugs in the last 12 months = 1, No, did not use drugs in the last 12 months = 2)
CC80	Chronic conditions – Mood disorders	(No = 0, Yes = 1)
CC85	Chronic conditions – Anxiety disorders	(No = 0, Yes = 1)
DSRMHR1	DV - Mental health (self-reported) – Rescale	(Poor = 0, Fair = 1, Good = 2, Very good = 3, Excellent = 4)
DSRGHR1	DV - General health (self-reported) – Rescale	(Poor = 0, Fair = 1, Good = 2, Very good =3, Excellent = 4)
TPI10	Total personal income - Estimated – Range	(Less than $30,000, including income loss = 1, $30,000 and more = 2)
DTPIGRPC1	DV - Total 2016 personal income - Groups	(Less than $5,000 or income loss (including no income) = 1, 2 = $5,000 to $9,999 = 2, $10,000 to $19,999 = 3, $20,000 to $29,999 = 4, $30,000 to $39,999 = 5, $40,000 to $49,999 = 6, $50,000 to $69,999 = 7, $70,000 and over = 8)
HOU05	Housing - Housing conditions - Satisfaction level	(Very satisfied = 1, Satisfied =2, Neither satisfied nor dissatisfied

		=3, Dissatisfied = 4, Very dissatisfied = 5)
RS05	Residential School – Attended	(No = 0, Yes = 1)
RS10A	Residential School - Family members attended – Parents	(No = 0, Yes = 1)
RS10B	Residential School - Family members attended – Grandparents	(No = 0, Yes = 1)
RS10C	Residential School - Family members attended – Current spouse/partner	(No = 0, Yes = 1)
RS10D	Residential School - Family members attended – Other relatives	(No = 0, Yes = 1)
RS	Any Residential School Experience in the Family (composite variable)	(No residential school experience = 0, Parents attended = 1, Grandparents attended = 2, Current spouse/partner attended = 3, Other relatives attended = 4)