aboriginal policy studies

Article

Correlates of Perceptions of Bullying at School among First Nations Youth Living Off Reserve

Rubab G. Arim
Statistics Canada

Evelyn Bougie
Statistics Canada

Dafna E. Kohen
Statistics Canada

UNIVERSITY OF ALBERTA
FACULTY OF NATIVE STUDIES

Indigenous and
Northern Affairs Canada

Affaires autochtones
et du Nord Canada

Correlates of Perceptions of Bullying at School among First Nations Youth Living Off Reserve

Rubab G. Arim
Statistics Canada

Evelyn Bougie
Statistics Canada

Dafna E. Kohen
Statistics Canada

Abstract: *This study described perceptions of bullying as a school characteristic and associations with school, academic, and health characteristics among a representative sample of First Nations high school students living off reserve in Canada using data from the 2012 Aboriginal Peoples Survey. Almost 4 in 10 of First Nations youth living off reserve perceived bullying as a problem at their schools. A perceived climate of bullying co-occurred with other negative school climate characteristics such as racism, violence, and the presence of alcohol and drugs. First Nations youth living off reserve who perceived bullying as a problem at school reported higher psychological distress and a higher prevalence of suicidal ideation, even after controlling for the effects of youth sex, age, and household income. These findings highlight the need to focus on school characteristics as perceived by youth to improve school climate and youth health.*

Introduction

Bullying is widely recognized as a major problem among youth in Canada, with over one third of children experiencing school bullying (Adlaf et al. 2007; Vaillancourt et al. 2010) and three quarters indicating that they have been affected by bullying (PREVNet n.d.). Youth can experience bullying at school as perpetrators, victims, and/or bystanders. There are various definitions of bullying; however, bullying is often aligned on a continuum of aggression and violence where a more powerful individual or group of individuals repeatedly and intentionally aggresses upon a less powerful person (Olweus 1993). The definition by the World Health Organization (2002, 5) highlights not only the intentional use of physical and psychological power in bullying but also consequences of bullying either resulting in or having a high likelihood of "injury, death, psychological harm, maldevelopment, or deprivation". Several researchers have reported that bullying increases with age and peaks for students in early high school (Pepler et al. 2006; Rigby 2004).

A number of studies have emphasized a high prevalence of bullying among Indigenous youth. For example, in 2003, the findings from the third Adolescent Health Survey conducted by McCreary Society in British Columbia indicated that Indigenous students (Grades 7–12) were more likely to report being excluded (34% vs. 31%), assaulted (16% vs. 9%), or verbally harassed (39% vs. 34%) than non-Indigenous youth (Van der Woerd et al.

aboriginal policy studies, vol. 8, no. 2, 2020
www.nativestudies.ualberta.ca/research/aboriginal-policy-studies-aps
ISSN: 1923-3299

3

2005). A study in Ontario of students in the same age group found similar results in terms of higher involvement with bullying behavior and victimization for Indigenous students compared with non-Indigenous students (Do 2012). A survey of high school students in Saskatchewan also showed that a greater proportion of Indigenous students (42%) were victimized than their non-Indigenous peers (30%; Eisler and Schissel 2004). Similarly, a survey of youth in seven communities within the Saskatoon Tribal Council revealed that bullying was common among First Nations youth living on reserve, with a prevalence of being bullied within the previous four weeks ranging from 20% to 61% depending on the community (Lemstra et al. 2011). The results from these studies are consistent with findings from other countries with Indigenous populations such as the United States (e.g., Carlyle and Steinman 2007; Eisenberg et al. 2003; Melander et al. 2013) and Australia (e.g., Coffin et al. 2010; Coffin 2011; Zubrick et al. 2005). Regarding sex differences, there are mixed findings in the literature with some studies indicating that bullying is more common among Indigenous males than females yet other research reports no differences (see Brownlee et al. 2014; Carlyle and Steinman 2007; Do 2012; Melander et al. 2013; Van der Woerd et al. 2005). Overall, these investigations suggest that experiences of bullying appear to be common among Indigenous youth who may be at greater risk of being involved in the many facets of bullying compared with their non-Indigenous peers.

Despite increasing research and media attention on bullying (CBC News 2019), there is still a paucity of population-based research on the scope of the problem of bullying at school among Indigenous youth, and the extent to which Indigenous youth perceive bullying as a problem at school remains largely unknown (Chartrand and McKay 2006; Perreault 2011). Thus, following a distinctions-based approach (Statistics Canada 2018), which recognizes diversity among Indigenous youth, the purpose of the present study was to describe bullying as a perceived characteristic of the school climate among a representative sample of First Nations high school students living off reserve in Canada, and to examine school, academic, and health correlates of perceived bullying at school. This information can be used to identify factors that may help to reduce school bullying and ultimately promote a more positive school climate for all young people including First Nations youth living off reserve.

Correlates of bullying

Extensive research has shown that being involved in bullying has harmful effects in various domains of functioning, including academic, behavioral, and psychosocial well-being (Swearer et al. 2010; WHO 2002; Wolke et al. 2013). Bullying can lead to psychological health problems, including anxiety, depression, and suicidal ideation (Bond et al. 2001; Kaltiala-Heino et al. 1999; Schneider et al. 2012), behavioral difficulties, such as substance abuse (Berthold and Hoover 2000; Luk et al. 2012), alcohol use (Nansel et al. 2001), lower academic achievement (Nansel et al. 2001; Srabstein and Piazza 2008), and higher school absenteeism (Juvonen et al. 2000). The adverse correlates of experiences of bullying are wide reaching.

Kaspar (2013), utilizing data from the 2006 Aboriginal Peoples Survey, uncovered that the occurrence of diagnosed psychological/nervous disorders was about 50% higher for Indigenous children aged 6 to 14 years who were exposed to school violence (as perceived by their parents or guardians) than among other children. In a similar vein, findings from the "We're all in this together: Keeping Aboriginal Students in School K-12" (KASIS) study conducted in 2013 in School District No. 57 of British Columbia indicated that Indigenous students who were involved with school violence reported higher expectations of violence, ongoing fights, absenteeism or frequent school changes, emotional detachment, chronic states of sadness and anger, and feelings of worthlessness and resentment (Wallace 2016). Employing data from the Western Australian Aboriginal Child Health Survey, Zubrick et al. (2005) also determined that Indigenous youth's experiences of bullying were associated with an increased risk of smoking, marijuana use, as well as increased levels of anger and sadness. Similar findings were reported by Coffin et al. (2010) such that bullying was associated with a sense of fear, behavioral problems, lower academic achievement, higher rates of absenteeism, and an increased risk of suicide for the Indigenous youth who were involved in bullying. Overall, these findings suggest that the correlates of bullying are multi-faceted and include implications for health, health behaviors, and school problems among both Indigenous and non-Indigenous youth.

Experiences of bullying at school can be even more of a challenge for Indigenous youth due to the historical trauma previously endured (Baez and Isaac 2013), including the residential school system (see Truth and Reconciliation Commission of Canada 2015). Additionally, Wallace (2016) has pointed out that experiences of bullying may be amplified in the presence of "historic trauma and cultural un-safety" (29). The adverse correlates of bullying are of particular concern for Indigenous youth, who have been shown to be at a higher risk for many adverse academic, behavioral, and psychosocial outcomes compared with their non-Indigenous counterparts (Rotenberg 2016; Zubrick et al. 2004). Yet, despite the serious and persistent psychosocial and behavioral problems associated with bullying, little is known about the correlates of perceived bullying at school among Indigenous youth in Canada.

Theoretical Frameworks

Various theoretical perspectives exist to understand bullying but no single view is sufficiently comprehensive (Rigby 2004). The present study is conceptualized using three social theories, including ecological (Bronfenbrenner 1979a), social control (Hirschi 1969), and social disorganization (Sampson and Groves 1989) theories, as well as two Indigenous-specific frameworks, including the First Nations Holistic Policy and Planning Model (Assembly of First Nations 2013) and the Integrated Life Course and Social Determinants Model of Aboriginal Health (ILCSDAH; Reading and Wien 2009), which can contribute to our understanding of bullying (Espelage and Swearer 2009) as perceived by First Nations youth living off reserve. Each of these theories and models can provide insight into various factors that may be important correlates of bullying.

Ecological theory

Ecological theory emphasizes person-environment interactions. Thus, understanding the characteristics of the school context, including activities and interpersonal relations occurring within the school along with the existence of supportive links to other settings, such as the family and community contexts in which youth live, is critical to youth development (Bronfenbrenner 1979b). The family context based on social ties, closeness, and involvement in a child's life is particularly relevant to First Nations youth living off reserve (Tam et al. 2017). These interactions are also evident in the First Nations Holistic Policy and Planning Model (Assembly of First Nations 2013) as well as the ILCSDAH model (Reading and Wien 2009).

Social control theory

In a similar vein, social control theory asserts establishing healthy and strong bonds to others in society, including families and teachers, commitment to social norms and institutions (e.g., schools), involvement in conventional activities (as opposed to criminal activities) and lastly, the common value system within an individual's community as a means of preventing delinquent acts (Hirschi 1969). Establishing and maintaining strong community bonds is particularly important in Indigenous peoples' lives (Richmond, Smith, & The Wabano Centre for Aboriginal Health 2012; Truth and Reconciliation Commission of Canada 2015). The First Nations Holistic Policy and Planning Model (Assembly of First Nations 2013), in particular, highlights "bonding" and "bridging" (11) in terms of relations within the community and with other communities, respectively, as key considerations to understanding health outcomes among First Nations people (Council on Social Determinants of Health 2015). These bonds can be reflected in students' perceptions of the school climate. Indeed, having a strong sense of community has been found to be protective in preventing delinquency (Kazdin 1987). Another key element of the social control theory is that youth possess a commitment to and engagement in conventional activities, such as community activities. For example, youth who are involved in extracurricular activities are less likely to engage in behavioral problems such as early school dropout and criminal arrests (Mahoney 2000), and bullying is less prevalent among youth who participate in a variety of extracurricular activities such as sports and clubs (Riese et al. 2015).

Social disorganization theory

Social disorganization theory attributes delinquency and youth violence to communities that are characterized by poor economic and social conditions, such as poverty, which can limit a community's ability to control or supervise youth behavior (Sampson and Groves 1989). Indigenous people face important income disparities compared with their non-Indigenous counterparts (Pendakur and Pendakur 2011). Research has shown that impoverished youth are more likely to be exposed to bullying in schools (Carlson 2006) and to identify with a culture of bullying (Unnever and Cornell 2004).

Indigenous-specific frameworks

The First Nations Holistic Policy and Planning Model (Assembly of First Nations 2013) uses an interactive approach to recognize social exclusion and emphasizes the role of individuals and communities as key determinants of health (Council on Social Determinants of Health 2015). As an example, parental and community involvement are considered as key determinants in the prevention of bullying (Baez and Isaac 2013). The ILCSDAH model (Reading and Wien 2009) conceptualizes social determinants within distal (e.g., racism and social exclusion), intermediate (education and cultural continuity), and proximal (e.g., health behaviors and physical environments) domains pinpointing the interplay among historical, social, environmental, cultural, and economic factors that directly or indirectly influence Indigenous health across the life course. To illustrate, a social determinant (e.g., perceptions of bullying at school) may contribute to the creation of an environment for youth development. If a negative environment is present, youth will not only experience physical, emotional, and academic difficulties, but these difficulties will likely be associated with additional stressors for families and communities (see Reading and Wien 2009). For example, when Indigenous youth experience social exclusion, alcohol and drug use increase (Mignone and O'Neil 2005).

In sum, these three social theories and two Indigenous-specific models provide a contextual framework that underscores the complex person-environment interactions within multiple contexts, including family, school, and community for understanding the context of youth bullying.

The School Context

Youth spend a considerable amount of time in schools. Therefore, the school context is an important social determinant of youth health (Huang et al. 2013). A social determinants lens in an Indigenous context includes unique determinants such as history, economics, and other social contexts (Greenwood et al. 2015). Moreover, these determinants are based on the importance of relationships, interconnectivity, and community (Reading 2015). A frequent area of research within the school context is school "climate", a term that relates to students' perceptions of the school environment, including the way individuals within a school relate to each other and the shared values and practices that define the school (Thapa et al. 2013).

Extensive research has shown that a positive school climate contributes to less aggression, violence, and harassment in school (Gregory et al. 2010; Karcher 2004). Moreover, schools with a positive school climate contribute to student well-being and better academic outcomes such as higher academic performance (Haahr et al. 2005), decreased student absenteeism (Kearney 2008), and lower rates of student dropout in high school (Christle et al. 2007) as well as lower levels of physical and mental health problems, such as depression, alcohol, and drug use (Kuperminc et al. 2001; LaRusso et al. 2008). Similar results have been observed among First Nations youth living off reserve. For example, a positive school environment has been associated with a lower likelihood of reporting poorer mental health and ever considering suicide (Guèvremont et al. 2016) as well as a lower prevalence of

smoking (Bougie and Kohen 2018). There is also evidence that school-based culturally-relevant programs for First Nations youth may have positive impacts on their well-being (see Crooks et al. 2017). Taken together, these findings suggest that school climate is important because of its amenability to modification through policy and programming and may have a profound influence on students' academic and health behaviors, including Indigenous student behaviors.

The Present Study

Given these negative long-term effects on the individual, experiences of bullying in schools is increasingly seen as a public health issue requiring the attention of families, elders, communities, knowledge keepers, educators, school administrators, healthcare providers, and policy makers. However, the extent to which Indigenous youth in Canada perceive bullying as a problem at school remains largely unknown; in addition, little is known about the characteristics of schools where bullying is seen as a problem for Indigenous youth. Most of the literature has focused on individual experiences of bullying (e.g., being a bully and/or a victim). Far fewer studies (see Kaspar 2013 for an exception) have examined bullying as part of a negative school climate, including its correlates for Indigenous youth. The goal of the present study was to describe bullying as a perceived school climate characteristic among a representative sample of First Nations high school students living off reserve in Canada, and to examine school, academic, and health correlates of perceived bullying at school.

Four research questions guided this study. First, what percentage of First Nations high school youth living off reserve perceive bullying as a problem at school and are there sex differences in youth's perceptions of bullying at school? Second, what are some of the characteristics of schools (as perceived by youth) in which First Nations youth living off reserve perceive bullying as a problem? Third, do First Nations youth living off reserve who perceive bullying as a problem at school have poorer academic (e.g., absenteeism), behavioral (e.g., drug use), and health (e.g., general and mental health) characteristics compared with those who do not? And fourth, are perceptions of bullying as a problem at school associated with off-reserve First Nations youth's mental health even after controlling for the effects of youth sex, age, and household income?

Methods

Source of Data

Data were drawn from the 2012 Aboriginal Peoples Survey (APS), a national, postcensal, and cross-sectional survey representative of First Nations people living off reserve, Métis, and Inuit in Canada. The APS was carried out by Statistics Canada with funding provided by three federal departments: Indigenous and Northern Affairs Canada, Health Canada, and Employment and Social Development Canada and did not include people living in institutions, nor people living on Indian reserves and settlements, and certain First Nations communities in the Yukon and in the Northwest Territories. Data were collected directly from respondents through personal interviews or through computer assisted interviews

between February and July 2012. Proxy reporting was used for most children aged 6 to 14 years, nearly half of youth aged 15 to 17 years, and for adults in certain specific situations. Participation in the APS was voluntary; the overall response rate was 76%. The APS analytical file included selected variables such as household income from the 2011 National Household Survey (NHS; Budinski and Langlet 2015).

Sample

The sample for the present study included youth aged 15 to 18 who were attending high school (grades 9 to 12 or equivalent) at the time of data collection and who reported a First Nations identity (either as a single response or in combination with another Indigenous identity[1]). Given the characteristics that were examined (e.g., mental health), only those who self-completed the survey (i.e., non-proxy respondents) were included. From the initial study sample, about 1% of the sample of interest was missing data on the variable of interest (i.e., perceptions of bullying as a problem at school) and were excluded. The final study sample consisted of 739 First Nations high school students living off reserve (53% male; mean age (SE) = 16.2 (0.05)). About 21% of youth were living in rural areas. About 4^E%[2] indicated that they moved in order to attend school because there were no high schools where they were living, although all were living with family members. More than half (59%) had a family member (e.g., grandparents, parents, or any other family member) who attended a residential school. Youth in the final study sample were slightly older (mean age (SE) 16.2 (0.05) vs. 15.9 (0.06); $F=12.55$, $p<.0001$) and were also less likely to perceive bullying as a problem at school compared with youth who were excluded from the final study sample (37% vs. 49%; $\chi^2(1)=16.6$, $p<.01$).

Measures

All study variables were selected based on two criteria: tied to at least one of the conceptual frameworks selected for the study and availability in the APS data.
Perceptions of bullying at school. Respondents were asked to rate how they felt about a series of statements about their schools. One statement pertained to bullying. Respondents were asked if they strongly disagree, disagree, agree, or strongly agree, that "Bullying is a problem at school". This variable was coded as binary (yes/no) by combining "strongly agree" and "agree" (yes) and "strongly disagree" and "disagree" (no). Correlations between perceptions of bullying at school and the other school climate characteristics ranged from -0.01 to 0.38 (see Table 2).

School climate characteristics. Respondents were asked if they strongly disagree, disagree, agree, or strongly agree, that: "Overall, I feel safe at school"; "Overall, I am happy at school"; "Most students in the school enjoy being there"; "This school offers parents many opportunities to be involved in school activities"; "This school supports First Nations, Métis, or

---

1 Respondents self-identified as 'Aboriginal' in the questionnaire but the term 'Indigenous' is used throughout this paper.

2 This estimate has a high sampling variability and thus should be used with caution.

Inuit culture through teaching and/or activities" [positive school climate characteristics]; "Racism is a problem at school"; "Violence is a problem at school"; "The presence of alcohol is a problem at school"; "The presence of drugs is a problem at school" [negative school climate characteristics]. Each item was analyzed separately and coded as binary (yes/no) by combining "strongly agree" and "agree" (yes) and "strongly disagree" and "disagree" (no). The correlations among these variables range from -0.01 between the violence and supporting First Nations culture variables to 0.40 between the drugs and alcohol at school variables.

Participation in extracurricular activities. Respondents were asked to indicate whether they had taken part in activities outside of school hours at any time during the school year, including: "Sport or physical activity or organized sports (including taking lessons)"; "Art, drama or music group or club (including taking lessons)"; "School group or club (such as student council, yearbook or science club) or groups or clubs outside of school". These activities were combined into a single binary variable—participated in any extracurricular activities (yes/no). The response category "not available" was included in "no".

Family socio-demographic characteristics. The total income of a household is the sum of the total incomes of all members of that household. Household income was used as a continuous variable and operationalized as the after-tax household income (in dollars) adjusted by a factor that accounts for household size.

Family involvement with school. Respondents were asked to indicate if any family member had done at least one of the following two activities during the school year: "Attend a school event in which respondent participated"; and "Participate in other school activities". These two activities were combined into a single binary variable—family is involved in at least one activity (yes/no).

Community ties. Strength of community ties was measured using the question: "On a scale from 1 to 5, how strong are the ties among members of your family living in your city, town, or community but in another household?", and coded as "stronger" (rating of 5 or 4) or "weaker" (rating of 3, 2, or 1).

Academic characteristics. Academic performance was measured with the question: "What was your overall grade average as a percentage on your last report card?" and coded as binary—80% or above (mainly "A's") (yes/no). The following two questions were combined to indicate whether respondents had skipped classes and/or arrived late for school in the previous two weeks (yes/no): "How many times in the previous two full school weeks did you skip classes?", and "How many times in the previous two full school weeks did you arrive late for school?".

Behavioral characteristics. Current smoking was measured with the following question: "At the present time, do you smoke cigarettes daily, occasionally, or not at all?". Two categories

were created: "daily smoking" vs. "occasional or non-smoking". Heavy drinking was defined as five or more drinks on a single occasion at least once a month in the past 12 months (yes/no). Drug use was measured with the following questions: "Have you ever used or tried marijuana, cannabis, or hashish?", "Have you ever used prescription drugs for recreational purposes?", and "Have you ever used or tried street drugs (such as cocaine, speed, solvents, or steroids)?". These questions were combined into a single binary variable—ever used drugs (yes/no).

Health characteristics. Respondents' self-rated their general and mental health using the following two questions: "In general, would you say your health is... Excellent, Very good, Good, Fair, or Poor?" and "In general, would you say your mental health is... Excellent, Very good, Good, Fair, or Poor?", which were then coded into two binary variables—"Excellent or Very good (yes) and "Good, Fair, or Poor" (no).

Psychological distress was measured using the K10 Psychological Distress Scale (K10; Kessler et al. 2002; 2003). The K10 was based on 10 items that measure the frequency of non-specific psychological distress symptoms during the previous month and has been validated for use among First Nations, Inuit, and Métis in the 2012 APS (Bougie et al. 2016). K10 scores ranged from 0 to 40. Respondents were categorized as reporting "higher" (score of 10 to 40) or "lower" (score of 0 to 9) risk for distress. Higher risk for distress corresponded to a score of 10 or more—the upper quintile distribution cut-off score for First Nations people living off reserve.

Lifetime suicidal ideation was measured with the question: "Have you ever seriously considered committing suicide or taking your own life?" (yes/no). Past-year suicidal ideation was measured with the follow-up question: "Has this happened in the past 12 months?" (yes/no).

Diagnosed mood and/or anxiety was coded as binary (yes/no) if respondents indicated having ever been diagnosed with a mood disorder (such as depression, bipolar disorder, mania, or dysthymia) and/or with an anxiety disorder (such as a phobia, obsessive-compulsive disorder, or a panic disorder).

Analysis Plan

To address the first and second research questions, the percentage of First Nations youth living off reserve who perceived bullying at school was first reported. Next, descriptive statistics for all study variables, including individual, school, family, and community characteristics, were examined for the total sample as well as separately for youth who did and did not perceive bullying as a problem at school. Comparison tests (chi-square tests for categorical and t-tests for continuous variables) between youth who did and did not perceive bullying at school were performed. We expected that more parental involvement and more support for First Nations culture at school would be associated with lower perceptions of bullying in school. Similarly, we expected that youth involvement in extracurricular activities would be associated with lower perceptions of school bullying. Finally, we also expected

that perceptions of bullying would be lower among youth who perceive their school environments to be positive. Given that evidence for sex differences in the literature is mixed, we did not have a specific hypothesis.

Table 1 summarizes the bivariate associations between perceived bullying and individual, school, family, and community characteristics. In addition to bivariate relationships, a multivariate regression analysis was conducted to examine the associations between perceived bullying and all individual, school, family, and community characteristics simultaneously to explore which characteristics remained statistically significantly associated with perceptions of bullying at school in the presence of all effects. Table 2 presents a summary of the results from this regression analysis.

To address the third and the fourth research questions, a similar strategy was followed. First, descriptive statistics for all academic, behavioral, and health characteristics were examined for the total sample as well as separately for youth who did and did not perceive bullying as a problem at school. Comparison tests (chi-square tests for categorical and t-tests for continuous variables) between youth who did and did not perceive bullying at school were performed. We expected poorer academic, behavioral, and health characteristics among youth who perceived bullying as a problem at school. Table 3 summarizes the bivariate associations between perceived bullying and academic, behavioral, and health characteristics. Finally, a multivariate regression analysis was conducted to examine the associations between perceived bullying and two mental health characteristics (i.e., psychological distress and suicidal ideation lifetime). This multivariate analysis aimed to shed light on the association between perceived bullying and off-reserve First Nations youth's mental health characteristics after controlling for the effects of youth sex, age, and household income. We expected poorer mental health characteristics among youth who perceive bullying as a problem at school even after accounting for the effects of youth sex, age, and household income. Table 4 presents a summary of the results from this regression analysis.

For all variables described above, missing data ranged between 0.14% and 10%. Community ties (7%), academic performance (8%), and past-year suicidal ideation (10%) had the most missing data. Missing data were excluded from the denominator in each analysis. Sampling weights were applied to all analyses to account for the sample design, non-response, and known population totals. A bootstrapping technique with a Fay adjustment factor was used when calculating estimates of variance to adjust for the complex survey design (Cloutier and Langlet 2014). Estimates with high sampling variability are identified by the letter E (i.e., marginal quality) throughout the text as well as in Table 1, Table 3, Figure 1, and Figure 2 and should be used with caution (Budinski and Langlet 2015).

Results

Descriptive statistics and bivariate associations between perceived bullying and individual, school, family, and community characteristics (Table 1)

Over a third of First Nations youth living off reserve (37%) perceived bullying as a problem

at school. Despite this, a majority of youth reported feeling safe (97%) and happy (93%) at school. Just over three quarters of youth (77%) reported that most students enjoyed being in school, and a comparable percentage reported that their schools offered parents many opportunities to be involved in school activities (71%) and that their schools supported First Nations culture (74%). Regarding negative school climate characteristics, close to one-fifth of First Nations youth living off reserve (18%) perceived racism as a problem at school and over a quarter (30%) perceived violence as a problem at school. In addition, close to one-fifth (18%) reported the presence of alcohol as a problem at school and close to half of youth (47%) reported so for drugs.
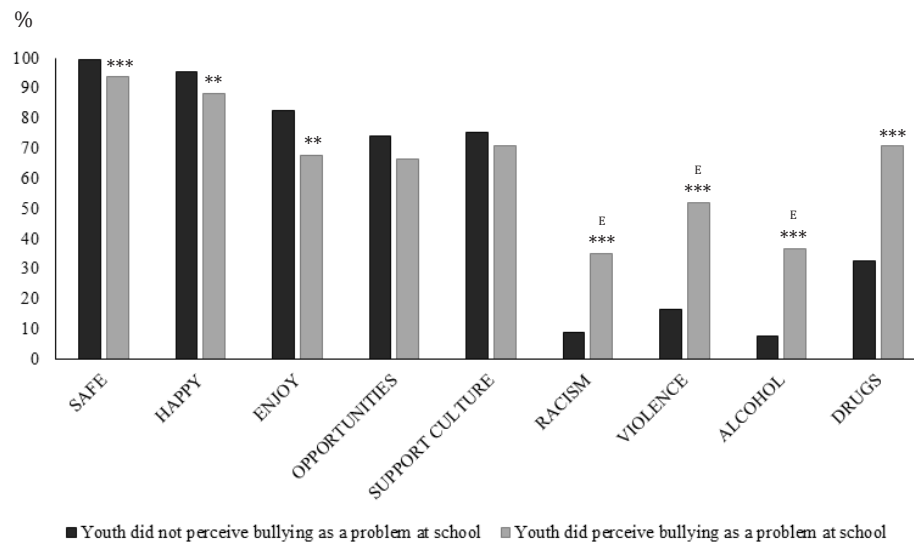
Turning to participation in extracurricular activities, just under two thirds of First Nations youth living off reserve (63%) reported participating in sports, arts, or club activities organized by the school. When all activities organized by the school and outside the school were considered, close to three quarters (73%) of youth reported participating in extracurricular activities.

Regarding family characteristics, the average household income adjusted for family size was \$32,695 and just over half of First Nations youth living off reserve (52%) indicated that their families participated in school activities at least one way (e.g., attended a school event or participated in other school activities). More than half (59%) had a family member who attended a residential school. Finally, over two thirds (69%) of youth reported having strong or very strong community ties.

When First Nations male and female youth living off reserve were compared, females tended to perceive more school bullying than males (54% vs. 46%), but this difference was not statistically significant.

Regarding school characteristics, although most reported feeling safe, First Nations youth living off reserve who perceived bullying at school were statistically significantly less likely to feel safe (94% vs. 100%) and happy (88% vs. 95%) and statistically significantly less likely to report that most students enjoyed being in the school (68% vs. 83%) compared with those who did not perceive bullying at school. Youth who perceived bullying at school were also statistically significantly more likely to perceive racism (35% vs. 9[E]%), violence (52% vs. 17[E]%), the presence of alcohol (37% vs. 8[E]%), and the presence of drugs (71% vs. 33%) as problems at school. These results are summarized in Figure 1.

Figure 1. Bivariate associations between perceived bullying and school characteristics as perceived by First Nations youth living off reserve

■ Youth did not perceive bullying as a problem at school   ■ Youth did perceive bullying as a problem at school

ᴱ use with caution. **p<.01, ***p<.001.
Source: Statistics Canada, Aboriginal Peoples Survey, 2012.

There were no differences between youth who did and did not perceive school bullying, as it related to participation in extracurricular activities; household income; family involvement in school; family members' attendance at a residential school; or strength of community ties.

Multivariate analyses between perceived bullying and individual, school, family, and community characteristics (Table 2)

When all individual, school, family, and community variables were considered simultaneously, First Nations youth living off reserve who perceived racism (OR=2.38), violence (OR=3.15), the presence of alcohol (OR=3.97) and drugs (OR=2.83) as a problem at school as well as those whose family participated in school activities such as attending a school event (OR=1.92) were statistically significantly more likely to perceive bullying as a problem at school. These results suggest that in the presence of all individual, school, family, and community variables that were considered in the study, the negative school climate characteristics and family participation in school activities are statistically significantly associated with off-reserve First Nations youth's perceptions of bullying as a problem at school.

Table 1. Descriptive statistics and bivariate associations between perceived bullying and individual, school, family, and community characteristics

Variable	Total sample (N=739)	95% Confidence Intervals	Youth did not perceive bullying as a problem at school (n=461 63%)	95% Confidence Intervals	Youth perceived bullying as a problem at school (n=278 37%)	95% Confidence Intervals
Individual characteristics						
Sex, %						
Male	52.5	46.9–58.1	56.6	49.4–63.5	45.6	37.0–54.4
Female	47.5	41.9–53.1	43.4	36.5–50.6	54.5	45.6–63.0
Younger age (15–16 vs. 17–18 years), %	59.1	53.4–64.4	59.0	52.0–65.6	59.2	50.1–67.7
Rural area, %	21.4	17.5–25.9	20.6	16.0–26.2	22.8	16.4–30.8
Positive school climate characteristics						
Student feels safe at school, %	97.4	96.1–98.3	99.6	98.5–99.9	93.8***	90.4–96.0
Student is happy at school, %	92.8	90.5–94.6	95.4	92.5–97.2	88.3**	83.6–91.8
Most students enjoy being in the school, %	77.2	72.4–81.4	82.8	76.5–87.6	67.5**	59.4–74.7
School offers parents many opportunities to be involved in school activities, %	71.3	65.8–76.3	74.2	66.8–80.4	66.4	57.6–74.2
School supports First Nations culture, %	73.7	68.2–78.0	75.3	69.2–80.6	70.9	62.9–77.8
Negative school climate characteristics						
Racism is a problem at school, %	18.4	14.2–23.4	8.8^E	4.7–15.7	34.9***	27.0–43.8
Violence is a problem at school, %	29.6	24.6–35.2	16.6^E	11.6–23.2	52.0***	42.9–61.0
The presence of alcohol is a problem at school, %	18.3	14.5–22.8	7.6^E	5.1–11.3	36.7***	28.4–45.9
The presence of drugs is a problem at school, %	46.8	41.1–52.6	32.7	26.4–39.8	71.1***	61.7–79.0
Student participation in extracurricular activities						
Sports, arts, or clubs organized by the school, %	63.2	57.8–68.3	63.4	56.4–69.9	62.8	53.5–71.2
Sports, arts, or clubs (all), %	73.1	68.1–77.5	73.2	66.5–78.9	73.0	64.5–80.0
Family characteristics						
Household income, *M(SE)*	32,695 (1549.4)	29,654–35,735	32,286 (1409.6)	29,520–35,052	33,398 (3529.7)	26,472–40,324
Participation in school activities, %	51.8	46.1–57.5	48.1	40.9–55.3	58.2	49.2–66.7
Family members' attendance at residential school, %	58.5	51.7–65.0	59.9	51.8–67.5	56.1	44.7–66.9
Community ties						
Community support, %	69.3	64.0–74.2	72.3	65.4–78.2	64.0	55.0–72.1

^{E} use with caution. **p <.01, ***p<.001.
Source: Statistics Canada, Aboriginal Peoples Survey, 2012.

Table 2. Multivariate analyses between perceived bullying and individual, school, family, and community characteristics (n=647)

| Variables	Estimates				
	B	S.E.	Odds ratio	95% confidence limits	Inter-item correlation
Intercept	-0.83	1.10			
Sex	0.42	0.31	1.53	0.84–2.78	0.11**
Old age (15–16 vs. 17–18 years)	-0.01	0.30	0.99	0.55–1.78	-0.01
Student feels safe at school	-1.53	0.91	0.22	0.04–1.29	-0.13***
Student is happy at school	-0.01	0.49	0.99	0.38–2.58	-0.10*
Most students enjoy being in the school	-0.50	0.36	0.61	0.30–1.22	-0.14***
School offers parents many opportunities to be involved in school activities	-0.20	0.37	0.82	0.40–1.68	-0.11**
School supports First Nations culture	0.11	0.32	1.12	0.60–2.08	-0.05
Racism is a problem at school	0.87*	0.44	2.38	1.01–5.63	0.28***
Violence is a problem at school	1.15**	0.42	3.15	1.38–7.18	0.37***
The presence of alcohol is a problem at school	1.38**	0.45	3.97	1.64–9.59	0.38***
The presence of drugs is a problem at school	1.04***	0.29	2.83	1.62–4.95	0.38***
Sports, arts, or clubs (all)	-0.22	0.40	0.80	0.37–1.74	0.02
Household income	0.10	0.07	1.10	0.96–1.26	0.03
Family participation in school activities	0.65*	0.32	1.92	1.01–3.63	0.09*
Community support	-0.39	0.32	0.68	0.36–1.25	-0.07
Cox and Snell R_Square	0.28				

*p<.05, **p <.01, ***p<.001. Source:
Statistics Canada, Aboriginal Peoples Survey, 2012.

Descriptive statistics and bivariate associations between perceived bullying and academic, behavioral, and health characteristics (Table 3)

A third of First Nations youth living off reserve (33%) reported having had mainly "A's" in their last report card; more than half (58%) reported skipping school or arriving late in the past two weeks. Regarding behavioral characteristics, 14% reported smoking daily, 15% reported heavy drinking, and 46% indicated having ever used drugs. There were no differences in academic or behavioral characteristics between youth who did and did not perceive bullying at school (although the pattern of results was in the expected direction for skipping school or arriving late, daily smoking, and heavy drinking, suggesting poorer academic and behavioral characteristics for youth who perceived bullying at school).

Regarding health characteristics, 65% of First Nations youth living off reserve reported excellent or very good general health and 62% reported excellent or very good mental health. Just over one fifth (22%) reported having higher risk for psychological distress and 17% reported having a mood and/or anxiety disorder. Finally, 14% of youth reported lifetime and 7[E]% reported past year suicidal ideation. First Nations youth living off reserve who perceived bullying at school were statistically significantly more likely to report higher risk for psychological distress (29% vs. 18%) and to report suicidal ideation—both lifetime (20% vs. 11[E]%) and past year (11[E]% vs. 4[E]%)—relative to their counterparts who did not perceive bullying at school. Selected health characteristics are summarized in Figure 2.

Figure 2. Bivariate associations between perceived bullying and health characteristics of First Nations youth living off reserve
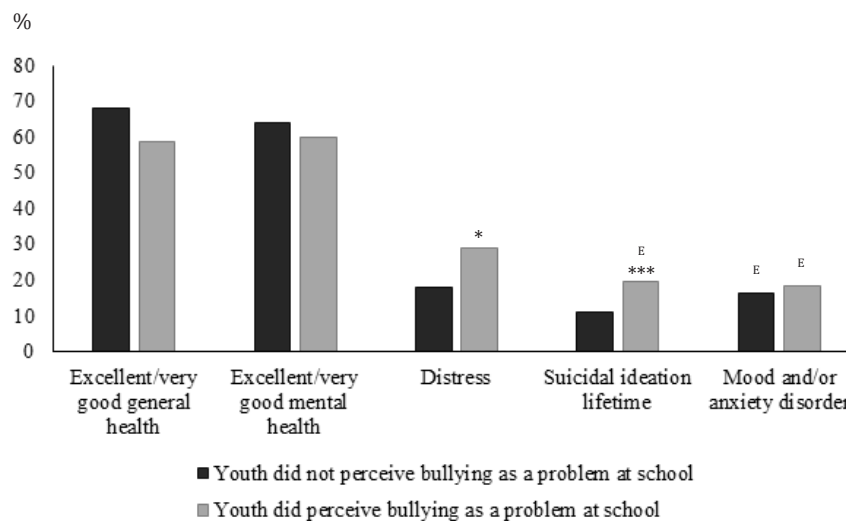
[E] use with caution. *p<.05, **p<.01.
Source: Statistics Canada, Aboriginal Peoples Survey, 2012.

Multivariate analyses between perceived bullying and mental health characteristics (Table 4)
After controlling for the effects of youth sex, age, and household income, First Nations youth living off reserve who perceived bullying as a problem at school were statistically significantly more likely to report higher risk for psychological distress (OR=1.74) and lifetime suicidal ideation (OR=1.93). These results suggest that off-reserve First Nations youth's perceptions of bullying as a problem at school remain statistically significantly associated with their mental health characteristics even after accounting for their sex, age, and household characteristics such as income.

Table 3. Descriptive statistics and bivariate associations between perceived bullying and academic, behavioral, and health characteristics

Variable	Total sample (N=739)	95% Confidence Intervals	Youth did not perceive bullying as a problem at school (n=461 63%)	95% Confidence Intervals	Youth perceived bullying as a problem at school (n=278 37%)	95% Confidence Intervals
Academic characteristics						
School mark mainly "A's", %	32.7	27.3–38.7	32.0	25.1–39.8	33.9	25.6–43.4
Skipping school or arriving late, %	57.5	51.7–63.1	54.4	47.0–61.5	62.8	53.6–71.2
Behavioral characteristics						
Daily smoking, %	13.5	10.2–17.7	13.1[E]	9.0–18.6	14.3[E]	9.4–21.2
Heavy drinking, %	15.0	11.7–19.0	12.6	9.1–17.2	19.0[E]	12.8–27.3
Ever used drugs, %	45.5	39.9–51.3	46.9	39.7–54.2	43.2	34.9–52.0
Health characteristics						
Excellent/very good general health, %	64.7	59.2–69.9	68.3	61.3–74.5	58.7	49.4–67.3
Excellent/very good mental health, %	62.4	56.9–67.7	64.0	57.0–70.4	59.8	50.5–68.5
Distress, %	22.1	17.8–27.0	17.9	13.3–23.7	29.2*	21.5–38.2
Suicidal ideation lifetime, %	14.2	11.2–17.8	10.9[E]	7.8–15.1	19.8**	14.3–26.8
Suicidal ideation past year, %	6.5[E]	4.7–9.0	3.8[E]	2.1–6.5	11.3[E**]	7.4–17.0
Mood and/or anxiety disorder, %	17.1	13.3–21.7	16.3[E]	11.6–22.5	18.4[E]	12.6–26.1

[E] use with caution. *p<.05, **p<.01, ***p<.001.
Source: Statistics Canada, Aboriginal Peoples Survey, 2012.

Table 4. Multivariate analyses between perceived bullying and mental health characteristics

Variable	Higher risk for psychological distress (n=711)				Suicidal ideation lifetime (n=723)			
	Estimates				Estimates			
	B	S.E.	Odds ratio	95% Confidence Intervals	B	S.E.	Odds ratio	95% Confidence Intervals
Intercept	-7.31**	2.24			-4.70*	2.16		
Sex	1.38***	0.27	3.97	2.33–6.75	0.62*	0.28	1.86	1.08–3.18
Age	0.23	0.13	1.26	0.98–1.63	0.12	0.13	1.12	0.87–1.45
Household income	-0.04	0.05	0.96	0.87–1.06	-0.07	0.06	0.93	0.83–1.05
Bullying is a problem at school	0.55*	0.27	1.74	1.02–2.96	0.66*	0.27	1.93	1.13–3.29
Cox and Snell R_ Square	0.92				0.52			

*p<.05, **p <.01, ***p<.001.
Source: Statistics Canada, Aboriginal Peoples Survey, 2012.

Discussion

The purpose of this study was to explore student perceptions of bullying as a school climate characteristic by First Nations youth living off reserve, their associations with other school characteristics as perceived by youth, as well as academic, behavioral, and health correlates. Four research questions were explored: 1) What percentage of First Nations high school youth living off reserve perceive bullying as a problem at school and are there sex differences? 2) What are some of the characteristics of schools in which First Nations youth living off reserve perceive bullying as a problem? 3) Do First Nations youth living off reserve who perceive bullying as a problem at school have poorer academic, behavioral, and health characteristics? 4) Are perceptions of bullying as a problem at school associated with off-reserve First Nations youth's mental health even after controlling for the effects of youth sex, age, and household income?

Several key findings emerged. First, over one-third (37%) of First Nations youth living off reserve perceived bullying as a problem at school. This rate is within the range of previously reported prevalence rates of bullying victimization among Indigenous youth as compared with non-Indigenous youth (see Eisler and Schissel 2004; Lemstra et al. 2011; Van der Woerd et al. 2005). However, rates are not directly comparable because the rates in the present study do not reflect the percentage of youth who were the victims of bullying but rather the perception of bullying as a school climate characteristic. It is unknown whether youth in the present study were bullies, victims, and/or bystanders or perhaps they have never experienced or seen bullying. Yet, almost 4 in 10 youth reported perceived bullying as a problem at school, and this rate is similar to the recent statistics

(35%) for Canadian children who reported being involved in a physical fight at least once in the past 12 months or being bullied at least once in the past couple of months (UNICEF Office of Research 2013). This rate is also comparable to the bullying statistics published by PREVNet (n.d.) indicating that half of high school students reported bullying as a problem at their schools. Future survey research should specify perceptions of bullying versus experiences of bullying and further differentiate between bullying perpetration and victimization experiences as well as witnessing to provide insight into differential aspects of bullying among Indigenous youth.

Second, First Nations youth living off reserve who perceived bullying as a problem at school were less likely to feel safe and happy at school, and less likely to report that students enjoyed being in school compared with their peers who did not perceive bullying as a problem at school. First Nations youth living off reserve who reported bullying problems in their schools were also more likely to report problems related to racism, violence, and the presence of alcohol and drugs at school. These findings support the notion that bullying is associated with a negative school climate (Glew et al. 2000) and that characteristics of a positive school climate, such as feelings of safety, happiness, and enjoyment diminish in the presence of bullying at school. Notably, when individual, school, family, and community characteristics were considered simultaneously, the negative school climate characteristics (i.e., problems related to racism, violence, and the presence of alcohol and drugs at school) still remained statistically significantly associated with perceptions of bullying. These findings highlight that bullying appears to co-occur within the context of other problems such as racism, violence, and the presence of alcohol and drugs at school. In fact, our findings showed that among First Nations youth living off reserve who perceived bullying as a problem at school, just over a third (35%) perceived racism as a problem, half (52%) perceived violence as a problem, and 71% reported the presence of drugs at school. Although we do not know whether the use of drugs or the presence of violence are higher because of bullying or vice versa, these findings suggest that addressing bullying alone may not be sufficient to develop a positive school climate. Future research is needed to disentangle the direction of these relationships. However, focusing on several school characteristics simultaneously such as addressing racism and bullying problems and increasing feelings of safety, happiness, and enjoyment at school may be important factors to improve school climate.

Third, First Nations youth living off reserve who perceived bullying at school were more likely to report higher risk for psychological distress and lifetime and past-year suicidal ideation. These findings are also in line with previous research conducted among Indigenous youth showing that youth's experiences of bullying were associated with feelings of worthlessness and sadness (Kaspar 2013; Wallace et al. 2016; Zubrick et al. 2005) and an increased risk of suicide (Coffin et al. 2010). Together, in line with the ecological theory (Bronfenbrenner 1979a), the ILCSDAH model (Reading and Wien 2009) and the First Nations Holistic Policy and Planning Model (Assembly of First Nations 2013), results suggest that negative school climate characteristics contribute to poorer mental health among First Nations youth living off reserve—indeed, those who perceived bullying as a problem at school also reported higher risk for psychological distress and lifetime suicidal

ideation even after controlling for youth sex, age, and household income. Moreover, our results extend previous research findings indicating that 17% and 7% of First Nations adults aged 18–25 years living off reserve reported lifetime and past-year suicidal ideation, respectively (Kumar and Nahwegahbow 2016). Our study showed that these figures were 14% and 7% for First Nations youth aged 15 to 18 years living off reserve, which suggests that the risk for lifetime and past-year suicidal ideation is also present in the high school years at a similar rate as for young adults and also similar in the elementary school years (6% past-year suicidal ideation; see Feng et al. 2016). School climate might be particularly important for Indigenous youth's mental health characteristics in light of the legacy of the residential school system in Canada (see Aboriginal Healing Foundation 2002; Truth and Reconciliation Commission of Canada 2015). Past transgenerational effects (Kirmayer et al. 2007) or historical trauma (Soto et al. 2015) likely influence how First Nations youth view the formal education system, including the school climate.

Some of our findings, although not statistically significant, are worthy of discussion. Statistically significant sex differences did not emerge in this study although more females (54%) than males (46%) reported perceived bullying as a problem at school. Larger sex differences may be apparent when different types of bullying are considered such as physical, verbal, and social bullying (see Do 2012) —this is an area worthy of further exploration. In addition, off-reserve First Nations youth's perceptions of bullying at school were not associated with perceptions of whether the school offered parents many opportunities to be involved in school activities and whether the school supported First Nations culture. These results may be due to the fact that these two items focused on the school's resources for parental involvement and support for culture and were potentially less associated with youth's own feelings and thus did not show differences. In a similar vein, youth's perceptions of bullying as a problem at school were not associated with their family's involvement in school activities although a statistically significant association emerged when all individual, school, family, and community variables were considered suggesting that potential interactions among individual, school, family, and community variables may play a moderating role in this association. It should be noted that given the cross-sectional nature of the analyses, the direction of influence cannot be determined. In other words, our results can not disentangle whether family involvement in school activities lead to an increase in youth's perceptions of bullying as a problem at school or vice versa. Overall, findings related to family involvement in school activities should be interpreted with consideration to several factors such as past residential school attendance by family members (59% in the present sample) and youth leaving their home community to attend high school (although this represented only about 4ᴲ% in the present sample).

Other variables including student participation in extracurricular activities, household income, family members' attendance at a residential school, and community support were not statistically significantly associated with off-reserve First Nations youth's perceptions of bullying at school. These variables were largely considered in light of the social control (Hirschi 1969) and social disorganization (Sampson and Groves 1989) theories as well as the ILCSDAH model (Reading and Wien 2009) and the First Nations Holistic Policy and

Planning Model (Assembly of First Nations 2013). Although both social control and social disorganization theories have been previously used to understand delinquency and crime among Indigenous peoples (see Proulx 2000), these theories may not be adequate or suitable to understand perceptions of bullying among Indigenous youth in the school context. Other measures such as community resources that align with the First Nations Holistic Policy and Planning Model (Assembly of First Nations 2013) and ILCSDAH model (Reading and Wien 2009) could be considered for future research on bullying. Future surveys may wish to further focus on Indigenous culture-specific activities in the school context and family involvement and feelings about school. Additional items that tap into these experiences could be considered for future cycles of the APS.

For both First Nations youth living off reserve who did and did not perceive bullying at school, 7 out of 10 participated in extracurricular activities and about 7 in 10 reported stronger community support, which was slightly (but not statistically significantly) higher for those who did not perceive bullying as a problem at school. These findings indicate that participation in extracurricular activities and presence of community support are prevalent among First Nations youth living off reserve regardless of their perceptions of bullying. Future research may examine other individual, family, and community variables that may have potential links to perceptions of bullying, such as youth self-esteem, resilience, close relationships with family members (see Tam et al. 2017), and community involvement. Importantly, there is a need for further research and data collection efforts with Indigenous-specific theoretical frameworks (e.g., ILCSDAH) that can shed light on perceptions of bullying at school among Indigenous youth.

While a majority of health characteristics were statistically significantly associated with off-reserve First Nations youth's perceptions of bullying, contrary to previous research findings (Coffin et al. 2010; Zubrick et al. 2005) none of the academic or behavioral characteristics were. The lack of statistically significant findings for academic (i.e., school mark mainly "A's", skipping school or arriving late) and behavioral (i.e., daily smoking, heavy drinking, and ever using drugs) characteristics may be due to various conceptual and methodological factors. For example, the present study focused on perceptions of bullying in the school and not individual experiences of bullying. In a similar vein, while associations were found with mental health characteristics such as distress and suicidal ideation, access to healthcare services may be associated with potential underreporting and the lack of statistically significant findings for diagnosed mood and/or anxiety disorder. Once again, caution is required when interpreting these findings as the direction of influence is unknown in these associations. For example, it is possible that First Nations youth living off reserve who were distressed were more likely to perceive their school environment negatively and thus reported perceived bullying as a problem at school rather than their perceptions of bullying leading to an increase in their distress.

Overall, this study aimed to shed light on self-reported perceptions of bullying at school and its correlates for First Nations youth living off reserve. In Canada, most provinces and territories have adopted a Safe Schools Act or policy (Panjvani 2013). However, Bhattacharjee (2003) found that the policy has its biggest impact on students with the co-

adaptation of a zero tolerance policy for bullying (i.e., use of suspensions and expulsions). In light of the findings from this study showing that almost 4 out of 10 First Nations youth living off reserve perceive bullying at school and that these youth are more likely to have poorer mental health and to perceive a school climate with racism, violence, and alcohol and drug problems, school policies, both broad culturally sensitive and Indigenous-specific programs and policies are required. Coffin et al. (2010) highlighted the importance of understanding Indigenous cultural, familial, and socio-economic realities and argued that reducing bullying requires a focus on and reduction of socio-economic disadvantage as well as fostering positive cultural identity. There are several programs such as the Fourth R (Crooks et al. 2010) and the Sweetgrass Method (Baez and Isaac 2013), which promote cultural connectedness by building on relationships among the community, family, the student, and school to prevent violence and reduce bullying. Future research should examine the extent and manner in which school-based and other interventions help to promote a positive school climate to improve social and health behaviors for youth.

Limitations

Several limitations of this study should be acknowledged. First, the school characteristics that were examined in this study were based on youth's perceptions (individual variability influences perceptions) and school climate is not necessarily experienced in the same way by all students. For example, Nansel et al. (2003) showed that victims and bully-victims in the 6th grade perceived their school climate as more negative than bullies or uninvolved students. Arguably, it is the subjective perception of this climate that is associated with individual behaviors. Yet, it is important to acknowledge that the findings reflect the feelings of youth who perceived bullying to be a problem in their schools, along with other aspects of their schools and therefore, conclusions cannot be made about characteristics of the schools themselves.

Second, a single item was used to measure youth's perceptions of bullying, and this item did not differentiate different types of bullying or the role of the respondent as a victim, bystander, or perpetrator. These differentiations may allow a more refined analysis, which was not available in the 2012 APS. For example, bullies may not perceive bullying as a problem at school unlike victims. Moreover, perceptions of school climate characteristics may be different for bullies than for those who are victims or bystanders.

Third, our results are based on cross-sectional data and thus causality cannot be inferred. In addition, the analyses were mostly descriptive in nature although some multivariate analyses predicting perceptions of bullying and mental health characteristics were performed. Some of the estimates (e.g., past year suicidal ideation) should be interpreted with caution as the estimates had a high sampling variability. Our findings are restricted to youth self-report and exclude youth with a proxy interview suggesting generalizability is limited and bullying is likely under- represented in the present study. A comparison group (i.e., non-Indigenous youth) was not available as data in the APS were only collected for Indigenous people. If youth had poor mental health characteristics, they may have been more likely to perceive bullying as a problem—direction of influence could not be determined. Finally,

our findings are not generalizable to other Indigenous groups (e.g., on-reserve First Nations youth including those who attend a school off reserve, Métis, and Inuit youth) but this is an important area of further inquiry. Future research may wish to use other sources such as the First Nations Information Governance Centre (FNIGC) data to replicate this study with First Nations youth living on reserve.

Despite these limitations, this study adds to the sparse literature on experiences of bullying among First Nations youth living off reserve in Canada. We found that perceptions of bullying in the school environment are relatively high among First Nations youth living off reserve, and youth's perceptions of bullying are associated with their mental health, which highlights the importance of bullying in suicide prevention programs and other mental wellness activities at the school level (see Health Canada 2013). Our findings offer several directions for future research to address important related issues such as perceptions of bullying in younger age groups, the interplay between various negative school climate characteristics (e.g., racism and bullying), a better understanding of the processes or mechanisms that underlie the relationships between aspects of school climate and youth behaviors, and how bullying prevention can be applied to off-reserve First Nations youth's school environments. Finally, given that some of our findings did not fully support the premises of the social control and social disorganization theories, another important direction for future research would be focusing on Indigenous-specific theoretical frameworks to better understand bullying and its correlates among Indigenous youth as well as to align data collection and analyses to be able to test some of these.

Conclusion

The present study aimed to address a knowledge gap about the extent to which First Nations youth living off reserve perceive bullying as a problem in their schools and what some of the school, academic, and health correlates might be. Almost 4 in 10 of First Nations youth living off reserve perceived bullying as a problem at school. Bullying co-occurs with other negative school climate characteristics. First Nations youth living off reserve who perceived bullying as a problem in their schools also perceived problems related to racism, violence, and the presence of alcohol and drugs. Moreover, those who perceived bullying as a problem at school also reported higher psychological distress and a higher prevalence of suicidal ideation even after controlling for the effects of youth sex, age, and household income. These findings highlight the need to have support mechanisms and services put in place at schools for all youth including Indigenous youth as well as focus on several characteristics to improve school climate.

Acknowledgments

References

Aboriginal Healing Foundation. 2002. The Healing has begun: An Operational Update from the Aboriginal Healing Foundation. Ottawa, ON: Aboriginal Healing Foundation.

Adlaf, E.M., A. Paglia-Boak, J.H. Beitchman, and D. Wolfe. 2007. OSDUH Highlights: The Mental Health and Well-Being of Ontario Students 1991–2007 (Centre for Addiction and Mental Health [CAMH] Research Document Series No.23). Toronto: CAMH.

Assembly of First Nations. 2013. First Nations Holistic Policy and Planning a Transitional Discussion Document on the Social Determinants of Health. Ottawa, ON: Assembly of First Nations. http://health.afn.ca/uploads/files/sdoh_afn.pdf

Baez, M.S.E., and P. Isaac. 2013. "A Sweetgrass Method of Bullying Prevention for Native American Youth." Journal of Indigenous Research 3, no. 1: 1.

Berthold, K.A., and J.H. Hoover. 2000. "Correlates of Bullying and Victimization among Intermediate Students in the Midwestern USA." School Psychology International 21, no. 1: 65–78.

Bhattachariee, K. 2003. The Ontario Safe Schools Act: School Discipline and Discrimination. Ontario Human Rights Commission. Accessed December 3, 2019. http://www.ohrc.on.ca/en/resources/discussion_consultation/SafeSchoolsConsultRepENG/pdf.

Bond, L., J.B. Carlin, L. Thomas, K. Rubin, and G. Patton. 2001. "Does Bullying cause Emotional Problems? A Prospective Study of Young Teenagers." BMJ 323, no. 7311: 480–484.

Bougie, E., R.G. Arim, D.E. Kohen, and L.C. Findlay. 2016. "Validation of the 10-Item Kessler Psychological Distress Scale (K10) in the 2012 Aboriginal Peoples Survey." Health Reports 27, no. 1: 3.

Bougie, E., and D.E. Kohen. 2018. "Smoking among Off-Reserve First Nations, Métis, and Inuit High School Students." International Indigenous Policy Journal 9, no. 2: 1.

Bronfenbrenner, U. 1979a. The Ecology of Human Development: Experiments by Nature and Design. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. 1979b. "Contexts of Child Rearing: Problems and Prospects." American Psychologist 34, no. 10: 844–850.

Brownlee, K., J. Martin, E. Rawana, J. Harper, M. Mercier, R. Neckoway, and A. Friesen. 2014. "Bullying Behavior and Victimization among Aboriginal Students within Northwestern Ontario." First Peoples Child & Family Review 9, no. 1: 38–52.

Budinski, R., and É. Langlet. 2015. Aboriginal Peoples Survey, 2012: User's Guide to the Public Use Microdata File (PUMF). Statistics Canada, Ottawa: ON.

Canadian Council on Social Determinants of Health. 2015. Social Determinants of Health Framework Task Group. A Review of Frameworks on the Determinants of Health. Canadian Council on Social Determinants of Health, 2015. Accessed December 3, 2019. http://ccsdh.ca/images/uploads/Frameworks_Report_English.pdf.

Carlson, K.T. 2006. "Poverty and Youth Violence Exposure: Experiences in Rural Communities." Children & Schools 28, no. 2: 87–96.

Carlyle, K.E., and K.J. Steinman. 2007. "Demographic Differences in the Prevalence, Co-Occurrence, and Correlates of Adolescent Bullying at School." Journal of School Health 77: 623–629.

CBC News. 2019. "We Investigate School Violence: CBC's Marketplace Consumer Cheat Sheet." CBC News, October 29, 2019. Accessed December 3, 2019. https://www.cbc.ca/news/business/marketplace-cheat-sheet-1.5335961.

Chartrand, L., and C. McKay. 2006. A review of research on criminal victimization and First Nations, Métis and Inuit peoples 1990 to 2001. Department of Justice Canada. Accessed December 3, 2019. https://www.justice.gc.ca/eng/rp-pr/aj-ja/rr06_vic1/index.html

Christle, C.A., K. Jolivette, and C.M. Nelson. 2007. "School Characteristics Related to High School Dropout Rates." Remedial and Special education 28, no. 6: 325–339.

Cloutier, E.C., and É. Langlet. 2014. Aboriginal Peoples Survey, 2012: Concepts and methods guide. Statistics Canada, Ottawa: ON.

Coffin, J. 2011. "'Make Them Stop it': What Aboriginal Children And Youth In Australia Are Saying About Bullying." First Peoples Child & Family Review 6, no. 1: 83–98.

Coffin, J., A. Larson, and D. Cross 2010. "Bullying in an Aboriginal Context." The Australian Journal of Indigenous Education 39, no. 1: 77–87.

Crooks, C.V., D. Chiodo, D. Thomas, and R. Hughes. 2010. "Strengths-Based Programming for First Nations Youth in Schools: Building Engagement through Healthy Relationships and Leadership Skills." International Journal of Mental Health and Addiction 8, no. 2: 160–173.

Crooks, C.V., D. Exner-Cortens, S. Burm, A. Lapointe, and D. Chiodo. 2017. "Two Years of Relationship-Focused Mentoring for First Nations, Métis, and Inuit Adolescents: Promoting Positive Mental Health." The Journal of Primary Prevention 38, no. 1–2: 87–104.

Do, C. 2012. "Aboriginal Children's And Youths' Experiences Of Bullying And Peer Victimization In A Canadian Context." PhD Diss. ProQuest, UMI Dissertations Publishing. (MR86276)

Eisenberg, M.E., D. Neumark-Sztainer, and C.L. Perry. 2003. "Peer Harassment, School Connectedness, and Academic Achievement." Journal of School Health 73, no. 8: 311–316.

Eisler, L., and B. Schissel. 2004. "Privation and Vulnerability to Victimization for Canadian Youth: The Contexts of Gender, Race, and Geography." Youth Violence and Juvenile Justice 2, no. 4: 359–373.

Espelage, D.L., and S.M. Swearer. 2009. "Contributions of three social theories to understanding bullying perpetration and victimization among school-aged youth," In Bullying, Rejection, and Peer Victimization: A Social Cognitive Neuroscience Perspective, edited by M. J. Harris, 151–170. New York: Springer.

Feng, C.X., C. Waldner, J. Cushon, J. Davy, and C. Neudorf. 2016. "Suicidal Ideation in a Community-Based Sample of Elementary School Children: A Multilevel and Spatial Analysis." Canadian Journal of Public Health 107, no. 1: e100–105.

Glew, G., F. Rivara, and C. Feudtner. 2000. "Bullying: Children Hurting Children." Pediatrics in Review 21, no. 6:183–190.

Greenwood, M., S. De Leeuw, N.M. Lindsay, and C. Reading, eds. 2015. Determinants of Indigenous Peoples' Health. Location: Canadian Scholars' Press.

Gregory, A., D. Cornell, X. Fan, P. Sheras, T.H. Shih, and F. Huang. 2010. "Authoritative School Discipline: High School Practices associated with lower Bullying and Victimization." Journal of Educational Psychology 102, no. 2: 483.

Guèvremont, A., R.G. Arim, and D.E. Kohen. 2016. "The Relationships between School Experiences and Mental Health Outcomes among Off-Reserve First Nations Youth." Aboriginal Policy Studies 5, no. 2: 60–80.

Haahr, J.H., T.K. Nielsen, M.E. Hansen, and S.T. Jakobsen. 2005. Explaining Student Performance. Evidence from the International PISA, TIMSS and PIRLS Surveys. Danish Technological Institute, Denmark. Accessed December 3, 2019. https://www.oecd.org/edu/school/programmeforinternationalstudentassessmentpisa/35920726.pdf.

Health Canada. 2013. National Aboriginal Youth Suicide Prevention Strategy (NAYSPS) Program Framework. Accessed December 3, 2019. https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/fniah-spnia/alt_formats/pdf/pubs/promotion/_suicide/strat-prev-youth-jeunes-eng.pdf.

Hirschi, T. 1969. Causes of Delinquency. Berkeley: University of California Press.

Huang, K.Y., S. Cheng, and R. Theise. 2013. "School Contexts as Social Determinants of Child Health. Current Practices and Implications for Future Public Health Practice." Public Health Reports 128, no. (6_suppl3): 21–28.

Juvonen, J., A. Nishina, and S. Graham. 2000. "Peer Harassment, Psychological Adjustment, and School Functioning in Early Adolescence." Journal of Educational Psychology 92, no. 2: 349–359.

Kaltiala-Heino, R., M. Rimpelä, M. Marttunen, A. Rimpelä, and P. Rantanen. 1999. "Bullying, Depression, and Suicidal Ideation in Finnish Adolescents: School Survey." BMJ 319, no. 7206: 348–351.

Karcher, M.J. 2004. "Connectedness and school violence: A framework for developmental interventions." In Handbook of School Violence edited by E. Gerler, 7–42. Binghamton, NY: Haworth Press.

Kaspar, V. 2013. "Mental Health of Aboriginal Children and Adolescents in Violent School Environments: Protective Mediators of Violence and Psychological/Nervous Disorders." Social Science & Medicine 81: 70–78.

Kazdin, A.E. 1987. "Treatment of Antisocial Behavior in Children: Current Status and Future Directions." Psychological Bulletin 102, no. 2: 187–203.

Kearney, C.A. 2008. "School Absenteeism and School Refusal Behavior in Youth: A Contemporary Review." Clinical Psychology Review 28, no. 3: 451–471.

Kessler, R.C., G. Andrews, L.J. Colpe, E. Hiripi, D.K. Mroczek, S.L. Normand, A. M. Zaslavsky et al. 2002. "Short Screening Scales to Monitor Population Prevalences and Trends in Non-Specific Psychological Distress." Psychological Medicine 32, no. 6: 959–976.

Kessler, R. C., P.R. Barker, L.J. Colpe, J.F. Epstein, J.C. Gfroerer, E. Hiripi, A.M. Zaslavsky et al. 2003. "Screening for Serious Mental Illness in the General Population." Archives of General Psychiatry 60, no. 2: 184–189.

Kirmayer, L. J., G.M. Brass, T. Holton, K. Paul, C. Simpson, and C. Tait. 2007. Suicide among Aboriginal people in Canada. Ottawa, ON: Aboriginal Healing Foundation.

Kumar, M. B., and A. Nahwegahbow. 2016. Past-year suicidal thoughts among off-reserve First Nations, Métis and Inuit adults aged 18 to 25: Prevalence and associated characteristics. Catalogue no. 89 653 X2016011. Statistics Canada: Minister of Industry, ON.

Kuperminc, G. P., B.J. Leadbeater, and S.J. Blatt. 2001. "School Social Climate and Individual Differences in Vulnerability to Psychopathology among Middle School Students." Journal of School Psychology 39, no. 2: 141–159.

LaRusso, M. D., D. Romer, and R.L. Selman. 2008. "Teachers as Builders of Respectful School Climates: Implications for Adolescent Drug Use Norms and Depressive Symptoms in High School." Journal of Youth and Adolescence 37, no. 4: 386.

Lemstra, M., M. Rogers, L. Redgate, M. Garner, and J. Moraros. 2011. "Prevalence, Risk Indicators and Outcomes of Bullying Among On-Reserve First Nations Youth." Canadian Journal of Public Health/Revue Canadienne de Santé Publique 102, no. 6 : 462–466.

Luk, J. W., J. Wang, and B.G. Simons-Morton. 2012. "The Co-Occurrence of Substance Use and Bullying Behaviors among US Adolescents: Understanding Demographic Characteristics and Social Influences." Journal of Adolescence 35, no. 5: 1351–1360.

Mahoney, J. L. 2000. "School Extracurricular Activity Participation as a Moderator in the Development of Antisocial Patterns." Child Development 71, no. 2: 502–516.

Melander, L. A., K.J.S. Hartshorn, and L.B. Whitbeck. 2013. "Correlates of Bullying Behaviors among a Sample of North American Indigenous Adolescents." Journal of Adolescence 36, no. 4: 675–684.

Nansel, T. R., D.L. Haynie, and B.G. Simons-Morton. 2003. "The Association of Bullying and Victimization with Middle School Adjustment." Journal of Applied Psychology 19, no. 2: 45–61.

Nansel, T. R., M. Overpeck, R.S. Pilla, W.J. Ruan, B. Simons-Morton, and P. Scheidt. 2001. "Bullying Behaviors among US Youth: Prevalence and Association with Psychosocial Adjustment." JAMA 285, no. 16: 2094–2100.

Olweus, D. 1993. Bullying at school: What we know and what can we do. Oxford, UK: Blackwell.

Panjvani, L. 2013. An overview of anti-bullying legislation and alternatives in Canada. Accessed December 3, 2019.   https://www.lawnow.org/an-overview-of-anti-bullying-legislation-and-alternatives-in-canada/.

Pendakur, K., and R. Pendakur. 2011. "Aboriginal Income Disparity in Canada." Canadian Public Policy 37, no. 1: 61–83.

Pepler, D. J., W.M. Craig, J.A. Connolly, A. Yuile, L. McMaster, and D. Jiang 2006. "A Developmental Perspective on Bullying." Aggressive Behavior 32: 376–384.

Perreault, S. 2011. Violent victimization of Aboriginal People in the Canadian provinces, 2009 (Catalogue No. 85-002-X). Statistics Canada website: Accessed December 3, 2019. http://www.statcan.gc.ca/pub/85-002-x/2011001/article/11415-eng.pdf.

PREVNet (n.d.) Bullying. The facts. Accessed December 3, 2019. https://www.prevnet.ca/research/bullying-statistics/bullying-the-facts.

Proulx, C. 2000. "Current Directions in Aboriginal Law/Justice in Canada." The Canadian Journal of Native Studies 20, no. 2: 371–409.

Reading, Charlotte. 2015. "Chapter 1: Structural determinants of Aboriginal People's health." In Determinants of Indigenous Peoples' Health in Canada: Beyond the Social, edited by Margo Greenwood, Sarah De Leeuw, Nicole Marie Lindsay, and Charlotte Reading, 3-17. Toronto: Canadian Scholars' Press.

Reading, C. Loppie, and F. Wien. Health Inequalities and the Social Determinants of Aboriginal Peoples' Health. Prince George, BC: National Collaborating Centre for Aboriginal Health, 2009. Accessed December 3, 2019.   https://www.ccnsa-nccah.ca/docs/determinants/RPT-HealthInequalities-Reading-Wien-EN.pdf.

Richmond, C. A., D. Smith, D., and The Wabano Centre for Aboriginal Health. 2012. "Sense of Belonging in the Urban School Environments of Aboriginal Youth." The International Indigenous Policy Journal 3, no. 1. Accessed December 3, 2019. http://ir.lib.uwo.ca/iipj/vol3/iss1/1. doi: 10.18584/iipj.2012.3.1.1.

Riese, A., A. Gjelsvik, and M.L. Ranney. 2015. "Extracurricular Activities and Bullying Perpetration: Results from a Nationally Representative Sample." Journal of School Health 85, no. 8) 544–551.

Rigby, K. 2004. "Addressing Bullying in Schools: Theoretical Perspectives and their Implications." School Psychology International 25 no. 3: 287–300.

Rotenberg, C. 2016. Social Determinants of Health for the Off-Reserve First Nations Population, 15 Years of Age and Older, 2012. Statistics Canada, Catalogue no. 89-653-X2016009. Ottawa: Minister of Industry.

Sampson, R. J., and W.B. Groves. 1989. "Community Structure and Crime: Testing Social-Disorganization Theory." American Journal of Sociology 94, no. 4: 774–802.

Schneider, S. K., L. O'Donnell, A. Stueve, and R.W. Coulter. 2012. "Cyberbullying, School Bullying, and Psychological Distress: A Regional Census of High School Students." American Journal of Public Health 102, no. 1: 171–177.

Soto, C., L. Baezconde-Garbanati, S.J. Schwartz, and J.B. Unger. 2015. "Stressful Life Events, Ethnic Identity, Historical Trauma, and Participation in Cultural Activities: Associations with Smoking Behaviors among American Indian Adolescents in California." Addictive Behaviors 50: 64–69. Accessed December 3, 2019. https://doi.org/10.1016/j.addbeh.2015.06.005.

Srabstein, J., and T. Piazza. 2008. "Public Health, Safety and Educational Risks Associated with Bullying Behaviors in American Adolescents." International Journal of Adolescent Medicine and Health 20, no. 2: 223–234.

Statistics Canada. 2018. First Nations people, Métis and Inuit in Canada: Diverse and Growing Populations. Catalogue no. 89 659 X2018001. Statistics Canada: Minister of Industry, ON. Accessed December 3, 2019. https://www150.statcan.gc.ca/n1/en/pub/89-659-x/89-659-x2018001-eng.pdf?st=kzqIhzGj.

Swearer, S. M., D.L. Espelage, T. Vaillancourt, and S. Hymel. 2010. "What can be done about School Bullying? Linking Research to Educational Practice." Educational Researcher 39, no. 1: 38–47.

Tam, B. Y., L.C. Findlay, and D.E. Kohen. 2017. "Indigenous Families: Who do you Call Family?" Journal of Family Studies 23, no. 3: 243–259.

Thapa, A., J. Cohen, S. Guffey, and A. Higgins-D'Alessandro. 2013. "A Review of School Climate Research." Review of Educational Research 83, no. 3: 357–385.

Truth and Reconciliation Commission of Canada. 2015. Honouring the Truth, Reconciling for the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada.

UNICEF Office of Research. 2013. Child Well-Being in Rich Countries: A Comparative Overview (Innocenti Report Card 11). Florence, Italy: UNICEF Office of Research.

Unnever, J. D., and D.G. Cornell. 2003. "The Culture of Bullying in Middle School." Journal of School Violence 2, no. 2: 5–27.

Van der Woerd, K. A., B.L. Dixon, T. McDiarmid, M. Chittenden, and A. Murphy. 2005. Raven's Children II: Aboriginal Youth Health in BC. The McCreary Centre Society.

Vaillancourt, T., H. Brittain, L. Bennett, S. Arnocky, P. McDougall, S. Hymel., … and L. Cunningham. 2010. "Places to avoid: Population-based study of student reports of unsafe and high bullying areas at school." Canadian Journal of School Psychology 25, no. 1: 40–54.

Wallace, S. N. 2016. Factors in Aboriginal student success. [Final report of the research project "We're all in this together: Keeping Aboriginal students in school" (KASIS)]. School District No. 57 Aboriginal Education Department.

Wolke, D., W.E. Copeland, A. Angold, and E.J. Costello. 2013. "Impact of Bullying in Childhood on Adult Health, Wealth, Crime, and Social Outcomes." Psychological Science 24, no. 10: 1958–1970.

World Health Organization. 2002. World Report on Violence and Health. Accessed December 3, 2019. http://apps.who.int/iris/bitstream/10665/42495/1/9241545615_eng.pdf.

Zubrick, S., D. Lawrence, S. Silburn, E. Blair, H. Milroy, E. Wilkes, S. Doyle et al. 2004. The Western Australian Aboriginal Child Health Survey: The Health of Aboriginal Children and Young People. Perth: Telethon Institute for Child Health Research.

Zubrick, S. R., S.R. Silburn, D.M. Lawrence, F.G. Mitrou, R.B. Dalby, E.M. Blair, J. Li et al. 2005. The Western Australian Aboriginal Child Health Survey: Forced Separation from Natural Family, Forced Relocation from Traditional Country or Homeland, and Social and Emotional Wellbeing of Aboriginal Children and Young People. Perth: Curtin University of Technology and Telethon Institute for Child Health Research.