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### Article abstract

The social, cultural and political contexts of vulnerability need to be considered in defining, understanding, and reducing substance abuse among maltreated youth with an Aboriginal background (MacNeil, 2008; Tatz, 1999). Aboriginal cultures tend to incorporate an ideology of collectivism that manifests in shared childrearing responsibilities within aboriginal families and communities (e.g., Dilworth-Anderson & Marshall, 1996). As such, Aboriginal children may identify with multiple and equally important attachment figures, and be more accepting of multiple caring adult guardians who can direct them away from risky behaviour (Christensen & Manson, 2001). We examined the relationship between cannabis use and reported identification with a caseworker among youth-identified Aboriginal and non-Aboriginal adolescents randomly drawn from the active caseload of a large urban non-Aboriginal Child Protection Services (CPS) system. While an Aboriginal-specific child welfare agency exists in this catchment area, youth need to be identified as Aboriginal to be involved in that system and some youth with Aboriginal heritage inevitably end up in non-Aboriginal CPS agencies. There were no significant differences in rates of maltreatment, trauma symptomatology, or overall cannabis use between Aboriginal and non-Aboriginal youth in this study. However, Aboriginal youth who reported a more negative (i.e., low) identification with their caseworker were five times more likely to use cannabis in the past 12 months compared to Aboriginal youth who reported a more positive (i.e., medium-high) identification with their caseworker. These results suggest that having a moderate-to-high positive identification with caseworker may be a protective factor in regard to abstinence from cannabis use among Aboriginal and non-Aboriginal youth in the non-Aboriginal CPS system.

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## Cannabis Use Among Aboriginal Youth in the Non-Aboriginal Child Protection Services System

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### Introduction

Child maltreatment challenges the youth to successfully negotiate developmental tasks and cope with potentially chronic stress which makes substance use more attractive in terms of managing overwhelming tension, negative affective states, feelings of depersonalization, dissociation, and numbing, as well as a need to counter stress for normative socialization (e.g., MacMillan & Munn, 2001; Wekerle, Miller, Wolfe, & Spindel, 2006). Adolescence, in particular, is a

### Abstract

The social, cultural and political contexts of vulnerability need to be considered in defining, understanding, and reducing substance abuse among maltreated youth with an Aboriginal background (MacNeil, 2008; Tatz, 1999). Aboriginal cultures tend to incorporate an ideology of collectivism that manifests in shared childrearing responsibilities within aboriginal families and communities (e.g., Dilworth-Anderson & Marshall, 1996). As such, Aboriginal children may identify with multiple and equally important attachment figures, and be more accepting of multiple caring adult guardians who can direct them away from risky behaviour (Christensen & Manson, 2001). We examined the relationship between cannabis use and reported identification with a caseworker among youth-identified Aboriginal and non-Aboriginal adolescents randomly drawn from the active caseload of a large urban non-Aboriginal Child Protection Services (CPS) system. While an Aboriginal-specific child welfare agency exists in this catchment area, youth need to be identified as Aboriginal to be involved in that system and some youth with Aboriginal heritage inevitably end up in non-Aboriginal CPS agencies. There were no significant differences in rates of maltreatment, trauma symptomatology, or overall cannabis use between Aboriginal and non-Aboriginal youth in this study. However, Aboriginal youth who reported a more negative (i.e., low) identification with their caseworker were five times more likely to use cannabis in the past 12 months compared to Aboriginal youth who reported a more positive (i.e., medium-high) identification with their caseworker. These results suggest that having a moderate-to-high positive identification with caseworker may be a protective factor in regard to abstinence from cannabis use among Aboriginal and non-Aboriginal youth in the non-Aboriginal CPS system.

**Keywords:** Aboriginal Youth; Emotional Abuse, Posttraumatic Stress; Child Protection Services; Adolescent Health

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developmental period of opportunity to build upon youth resilience, as they negotiate their transition to independent identity and, ultimately, living full and productive lives. The concept of resilience is founded on the idea that poor outcomes do not

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necessarily follow from exposure to traumatic life events or genetic predisposition to engage in maladaptive behaviors, such as substance abuse. Resilience is based on both fixed factors (i.e., race and gender) and context factors, such as the presence of positively engaged adult role models (Banyard et al., 2002; Siegel, 2000; Wekerle et al., 2007).

Social learning theory advances that a youth learns by observing and interacting with adults, where continuity of interaction over time is expected to reinforce learned associations in social interactions, from engaging in conversation, to sharing attention or activities, to how to cope with stressors. Learning is enhanced when there are strong positive feelings towards the role model or a positive identification with them (e.g., Akers, Krohn, Lanza-Kaduce, & Radosevich, 1979; Bandura, Adams, & Beyer, 1977; Wall & McKee, 2002). From social learning, "acceptable" norms and attitudes of behaviors as "good" (reinforcing) or "bad" (aversive or punishing) influences the degree to which an individual will be motivated to engage in the behaviors (Akers et al., 1979; 1992). Control theory (e.g., Hirschi, 1969) posits that the elements of bonding and attachment, commitment, involvement, and beliefs restrain antisocial tendencies, such as use of illicit drugs. Bonding to society initially occurs through attachment to parents or guardians, an empathic identification that fosters acceptance of their beliefs in the moral validity of societal laws. The most important of these elements are the beliefs that individuals have towards legal and illicit

substances, formed from adult role models and peers, which then inform values and actions from an individual to cultural level (Elliott, Huizinga, & Ageton, 1985; Marcos, Bahr, & Johnson, 1986). In the Aboriginal context, cultural safety reflects sensitivity to power imbalances and discrimination at many levels (National Aboriginal Health Organization, 2009). These are evident in Aboriginal families engaged in the child protective services (CPS) system, where Aboriginal children are over-represented, at over 10 times the rate of non-Aboriginal children, and where substantial resource inequity exists for family preservation (Auditor General of Canada, 2009; for a discussion of the historical mistreatment and child welfare issues, see Blackstock, 2009). For example, in Ontario, in 2006, about 16% of out-of-home care were Aboriginal children, with 20% of reviewed Crown Wards (i.e., parental rights are terminated)<sup>1</sup>.

Child protective services (CPS) youth represent a unique sub-population of adolescents in terms of studying resilience processes and factors. Most CPS youth will have a primary form of maltreatment substantiated (CIS-2003 report, Trocmé et al, 2005) and, according to self-report, many indicate more than one type of maltreatment (Trocmé et al, 2005). Also, as many youth reside in monitored environments, alcohol, which is the drug of choice for youth from a population perspective (e.g., OSDUHS report on

1. 37% of these Crown Wards were served by Aboriginal child welfare services. In terms of Aboriginal Crown Wards who were reviewed, 10% were placed in their home communities, and the majority had some involvement with cultural practices (e.g. Canadian Council on Learning (2009) Looking to the Futures Report, Wekerle et al, 2010)

trends over time, Adlaf et al, 2007), appears to be significantly under-used by CPS adolescents (i.e., Up against the wall report, Wekerle et al, 2009). From population studies, cannabis is the next most commonly used substance (e.g., Monitoring the Future Study, Johnston et al, 2009; OSDUHS report, Adlaf et al, 2007). Preliminary research with Canadian CPS youth indicate that problem or heavy cannabis use may be an area of risk, where females may be particularly vulnerable (Wekerle et al, 2009). While harm reduction approaches include a target of abstinence (Marlatt & Witkiewitz, 2009; National Anti-Drug Strategy, 2009), understanding the contexts of resilience is important for prevention and early intervention. More recent evidence under-scores the toxicity of cannabis on the developing adolescent brain, including greater vulnerability to severe mental illness (Patton et al, 2002). Further, in health promotion terms, use of cannabis removes opportunities for other gainful engagement and use of funds. The physiological impact of cannabis is harmful to school performance, safe driving, etc. (e.g., driving while high, Adlaf et al, 2007; poor educational outcome, Fergusson & Boden, 2008), although it reduces tension and may be sought as a means to cope with problems (e.g. cannabis is used as a means of self-medication for problems controlling aggression, Arendt et al, 2007). Recent reviews support the positive association between childhood maltreatment history and adolescent cannabis use (Tonmyr et al., in press). While research indicates that substance abuse is a community-identified problem, and Aboriginal youth show higher rates of cannabis use (e.g., Rutman et al., 2008), often the contribution of poverty and social service resources are not considered (MacMillan et al., 1996). Presently, CPS services do not routinely screen youth on their substance use, and adolescent-specific substance abuse treatment availability is low (e.g., Wekerle et al, 2009).

Aboriginal cultures tend to incorporate an ideology of collectivism, as demonstrated in research on the significant role of shared childrearing responsibilities among families and

communities (e.g., Dilworth-Anderson & Marshall, 1996). In this culture, children may be raised in an open-system, extended-family context where there may be multiple important caregivers (Red Horse, 1982). As such, Aboriginal children may be more accepting of multiple caring adult guardians (Christensen & Manson, 2001). Beebe et al. (2008) report that non-parental adult role models were associated with four to seven-fold lower odds of alcohol, tobacco, and other drug use among American Indian (AI) adolescents. Swaim et al. (1993) report that "Peer drug associations, although still dominant in the model, were not as highly correlated with drug use for American Indian youths (when compared to Anglo youths), and family sanctions against drugs had a direct influence on drug use in addition to an indirect influence (among American Indian youth)" (p. 53).

As a result of the migration away from traditional ways of life, of the 4.1 million persons who reported American Indian/Alaska Native (AI/AN) race on the 2000 U.S. Census, 67% (2.8 million) resided in urban areas (US Census, 2000). Youth also make up a large proportion of the total AI/AN population, with one-third under age 18, compared to less than one-quarter of the white population (US Census Native Summary File, 2000). Almost 1 million people self-identify as Aboriginal in Canada, representing 3.3% of the total population. While many live on reserves, 41% reside in non-reserve areas (36% urban, 5% rural) (Kirmayer, Simpson, & Cargo, 2003). The population is demographically distinctive in being younger than the general Canadian population (mean age 25.5 vs. 35.4 for general population), with fully one-third of the Aboriginal population is younger than 15 years of age (Kirmayer, Simpson, & Cargo, 2003). As such, it is important to consider Aboriginal youth living off of reserves (i.e., in urban areas).

In this paper, we report on the Maltreatment and Adolescent Pathways (MAP) Longitudinal Study which collects data from randomly-selected active case files in three CPS agencies that together capture most of the CPS "traffic" in a large Canadian urban centre. Here, we

present an exploratory comparison of Aboriginal youth in the non-Aboriginal CPS system to non-Aboriginal youth in the same system on cannabis use. While Aboriginal CPS agencies are provided in this geographical region, some youth may not find themselves in this system. We hypothesize that Aboriginal youth have greater flexibility in connecting with caring adult guardians given their cultural context of resilience in community concepts of “family” and may be more likely to benefit from this extended circle of adult caregivers than non-Aboriginal youth. For youth who are wards of the state, the caseworker represents an adult who is potentially involved with the youth over the long-term and is mandated by law to visit with the youth every 90 days in the jurisdiction of the present study. It is specifically predicted that Aboriginal youth who report a positive identification with their caseworker will report less cannabis use than Aboriginal youth or non-Aboriginal youth who report a negative relationship with their caseworker. For purposes of this study, Aboriginal background is considered broadly in terms of the youths’ identification, rather than a status Indian designation.

## Method

The MAP study followed a community-university collaboration model (Waechter et al., 2009) and received ethics clearance from CPS agencies and university research ethics boards. CPS youth who participated in the MAP Study were drawn via random numbers table from CPS agency provided master lists of all active caseloads of youth aged 14.0 to 17.0. This age range was selected to maximize the measurement of adolescent health risk behaviors, such as substance use. The three participating CPS agencies account for the majority of the child welfare caseloads in this urban centre. (For further details on the MAP study, see Wekerle et al., 2009 and Waechter et al., 2009). The sampled targeting youth who were in care and living with their biological families,

where cases of the latter type could be opened for a short time frame (i.e., less than 6 months)<sup>2</sup>.

Thus, of 1879 cases sampled, 56% were available for study inclusion, with the majority issue being that the case was already closed by the time of readiness of caseworkers to contact youth about a research opportunity. Other reasons for ineligibility at the CPS agency checking-stage included youth being outside the 14.0 to 17.0 year age range (4%), youth developmental delay (12%), youth being absent without leave (7%), and the youth being in a crisis (i.e., actively suicidal, self-harming, in extended treatment or detention – 9%). Of the 827 eligible youth who remained at the time of writing, 259 refused participation and 560 had participated in the initial testing point for a 68% recruitment rate, and 1% were in the process of initial data collection (Eight youth still need to be contacted about initial involvement in the study).

MAP participants did not differ significantly from non-participants with respect to youth age, gender or type of maltreatment. However, there is a significant contingency between participation in the current project and youth CPS status ( $X^2(1, N = 560) = 112.02, p < .001$ ), with more youth coming from society ward (adjusted residual = 7.1) and crown ward (adjusted residual = 4.0) categories, and fewer youth coming from community families (adjusted residual = -8.9). Thus, the MAP sample may generalize less well to community families. Data from the initial time point in the MAP is presented in this paper.

The MAP collected consent from guardians if the youth was under age 16.0, and youth provided their own consent from age 16.0 and

2. Crown wards: Refers to a CAS designation for children whose parents are deemed by the court to be unable to provide care, such that the Crown (Province of Ontario) assumes all responsibility as the legal guardian for that child's care and custody. Society wards: Children who temporarily come into the care of a CAS for a period of time specified by the Court, based on evidence presented by CAS that the child is in need of protection. Community families: Families who are receiving voluntary CAS services, where children may be in out-of-home care temporarily or may remain at home throughout CAS involvement. Temporary wards: Involvement of children who are in out-of-home care at the request of or with the co-operation of their parents, using a temporary care order or temporary care agreement, and temporary custody of the child by the CAS.

up. An explanatory letter highlighted limits to confidentiality and potential action for verbal disclosures of child abuse/neglect, harm to self, and harm to others, as well as the independence of the MAP Study from CPS services. The clinical protocol for reporting child abuse/neglect concerns was to contact the caseworker and indicate the maltreatment event. MAP testers would proceed to contact CPS intake if the maltreatment was new or unknown to the caseworker, which operates on a 24-hour basis. In this jurisdiction, law dictates that the direct recipient of the maltreatment information must be the reporter. Youth received a help sheet with a range of web and local resources for all main variables queried in the MAP, including anonymous help sources, such as 24-hour hotlines at the close of testing. Youth were paid \$28.00, given refreshments, and reimbursed for any necessary travel to participate in the MAP. Testing time ranged from 1.5 to 4.0 hours, with an average of 2.5 hours. Youth were given the option of participating in the study by meeting research staff at a CPS agency, healthcare institution, neutral location such as a library, or their place of residence, wherever privacy could be obtained. Most youth (90%) selected testing at their place of residence.

### Participants: Current Report

The current report is based on a subsample of 476 MAP youth (53% female) with complete data at the initial time point of the study. Their mean age was 15.8 (SD=.99) and most youth (62%) were crown wards, followed by community family status (17%), society ward (15%) and temporary care status (6%). On average, the youth reported being involved with CPS for 5.9 years (SD=4.4) and they reported having an average of 3.1 CPS workers (SD=1.7) in that time. At the time of the survey, most youth (43%) lived with foster parents, followed by a group home (25%), with one biological parent and/or one other parent (9%), on own or with a friend (5%), with two biological married or common-law parents (4%), with other

relatives (4%) or "other" living arrangements (10%). Thus, in terms of system variables, most of these youth have been involved in the child welfare system across the pre-teen and teen years, and have some sort of more formal relationship with child welfare. There was no significant difference between Aboriginal and non-Aboriginal youth on demographic or CPS experience variables. Non-Aboriginal youth did report a slightly greater number of personal computers in their home (M=2.5; SD=.67), compared to Aboriginal youth (M=2.1; SD=.81),  $p < .01$ .

Youth were queried about their ethnicity via a checkbox where as many identifications as were considered appropriate could be reported. For 31% of MAP youth, dual or multiple ethnicities were noted, followed by single-only ethnicities identified: White (30%), Black (25%), Latin American (4%), Chinese (2%) and other ethnicities (8%). In total, 43, or .9% of the youth self-identified as Native or Aboriginal, with most (86%) of these youth endorsing Aboriginal, along with another ethnic status (mainly bi-racial White and Native heritage). Specific status or tribe connections were not queried. This subsample of 43 youth was the basis for further analyses, and comparison to the rest of the sample of youth who did not report Native or Aboriginal ethnicity (n=433).

### Measures

In the MAP Study, CPS youth completed a package of mostly commercially available or standardized questionnaires. The following measures were selected and analyzed for this report.

#### *1) Socioeconomic status and CPS experience*

Socioeconomic status and CPS experience were considered to assess whether they needed to be controlled in group difference analyses. An adolescent population survey (i.e., Ontario Student Drug Use and Health Survey, Adlaf et al,

2007) included in the MAP includes questions that approximate socioeconomic status that are summed as a total score. The three questions used in the MAP study are: (1) "In the place you lived most of your life, did your caregivers own or rent?" (2) "How many cars does your family/care home have?" and (3) "How many computers does your family/care home have in the house?" Four questions were used to assess CPS experience, to control for variability across youth: (1) "How many years have you been involved with CPS?" (2) "How many CPS workers have you had since being involved in CPS?" (3) "During the last 5 years, how many times did you move between homes?" (4) "How many difference places have you lived in the past 5 years?"

## ***2) Maltreatment: Childhood Trauma Questionnaire (CTQ) & Childhood Experiences of Violence Questionnaire (CEVQ)***

Experiences of childhood maltreatment were assessed via the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994). The CTQ short form (Bernstein et al., 2003) assesses maltreatment via a standard stem (e.g., "While you were growing up..."), rating 28 items on a 5-point scale (1 = "never true" to 5 = "very often true") across five subscales: emotional neglect, physical neglect, sexual abuse, physical abuse, and emotional abuse. Three of the 28 questions are validity items and there are five items per subscale. The CTQ does not tap exposure to intimate partner violence. Two-week test-retest reliability of the CTQ for a MAP youth sub sample (n = 52) was moderate [physical abuse (r = .64), sexual abuse (r = .52), emotional abuse (r = .70), emotional neglect (r = .63) and physical neglect (r = .56)], while internal validity was high [physical abuse ( $\alpha$  = .92), sexual abuse ( $\alpha$  = .88), emotional abuse ( $\alpha$  = .85), emotional neglect ( $\alpha$  = .87), and physical neglect ( $\alpha$  = .68)]. Youth report and worker's rating of childhood maltreatment are significantly correlated in terms of physical abuse (r = .48), sexual abuse (r = .58), and physical neglect (r

= .26), but not for the emotional abuse or the emotional neglect subscales.

Self-report of maltreatment experiences was also assessed with the Childhood Experiences of Violence Questionnaire (CEVQ) (Walsh, MacMillan, Trocmé, Jamieson, & Boyle, 2008). The CEVQ assesses physical abuse, sexual abuse, emotional abuse, witnessing domestic violence, peer-to-peer violence, and exposure to corporal punishment. It does not tap neglect. This self-report measure queries age of maltreatment, frequency, outcome, and perpetrator characteristics. The CEVQ demonstrates good test-retest reliability (kappas ranging from .61 - .91), and validity, as determined by clinician assessment, with estimates falling in a similar range (kappas for physical and sexual abuse were .68 and .74, respectively). Two-week test-retest reliability of the CEVQ among the MAP youth sample ranged from moderate to high [physical abuse (r = .88), sexual abuse (r = .71), emotional abuse (r = .51)], while internal validity also ranged from moderate to high [physical abuse ( $\alpha$  = .82), sexual abuse ( $\alpha$  = .70), emotional abuse ( $\alpha$  = .68)]. The CEVQ is used to provide more detailed descriptive information of maltreatment and can, therefore, reflect maltreatment where caregivers are the perpetrators (or failure to protect), as would be the chief concern in child welfare cases.

## ***3) Trauma Symptomatology: The Trauma Symptom Checklist for Children (TSCC)***

Posttraumatic Stress Disorder (PTSD) symptomatology was assessed with the Trauma Symptom Checklist for Children (TSCC) (Briere, 1996). The TSCC is a 54-item self-report measure consisting of six clinical scales (anxiety, depression, anger, PTSD, dissociation, and sexual concerns) and two validity scales (under-response and hyper-response). The measure was normalized on teens and was intended for use in the evaluation of children who have experienced traumatic events. Reliability is high (internal consistency is .82 - .89) and good convergent,

discriminant, and construct validity have been established. The 2-week test-retest reliability of the MAP subsample on the TSCC was moderate ( $r = .50$ ) and internal validity was very high ( $\alpha = .97$ ). In keeping with developmental traumatology hypotheses on the importance of subclinical symptoms, we use a total score of any clinical elevation among the subscales of the TSCC.

#### ***4) Guardian Identification: The Identification Questionnaire***

The importance of each youth's relationship to his/her CPS worker was measured by responses to seven items that were adapted from a questionnaire developed by Palmonari, Kirchler, and Pombeni (1991). Originally, these items were queried with the family, mother and father as the reference point, and caseworker items were added for the MAP study. These items require youth to respond on a 5-point scale from "completely disagree" to "completely agree" on: (1) I identify with my CPS worker, (2) I feel strong positive feelings about my CPS worker, (3) I feel strong negative feelings about my CPS worker (reverse coded), (4) My CPS worker is very important to me, (5) I would like to be like my CPS worker, (6) I have a strong relationship with my CPS worker, and (7) My CPS worker cares about me. Responses were summed and averaged to obtain an overall CPS worker identification score for each youth in the study. Reliability (internal consistency) of the CPS Worker Identification measure based on data collected from youth in the MAP study is high (Cronbach's  $\alpha = .832$ ).

#### ***5) Substance Use: Cannabis Items from the Youth Risk Behaviour Surveillance Study (YRBSS)***

Cannabis use was measured by a single item drawn from the Youth Risk Behavior Surveillance System (YRBSS), a US survey that monitors health risk behaviors among adolescents. The item included in the MAP was:

"In the last 12 months, how many times did you use cannabis (e.g., cannabis, hashish, hash oil, pot, grass)?" Responses ranged from "don't use" to "0 times", "1-2 times", "3-5 times", "6-9 times", "10-19 times", "20-39 times", and "40+ times". Youth responses to this item were recoded into a dichotomous variable consisting of: 0 = don't use or 0 times in the last 12 months versus 1 = used 1-2 times or more in the last 12 months. Of the  $N=394$  MAP youth who responded to this item, 203 (51.5%) reported using cannabis at least once in the last 12 months.

### **Data Collection Procedure**

At each testing, youth were reminded verbally of the right to skip questions, withdraw from the study at any time without consequences and without explanation, and that CPS services were unrelated to their research involvement. Data collectors were undergraduate psychology or science students or graduate psychology students. MAP staff provided training in testing procedures, mandatory reporting, and clinical protocols. Post-training, testers first shadowed an experienced tester prior to independent testing. Testers communicated with supervisors on a weekly basis and kept filed testing notes per occasion indicating if testing was uneventful or noting any issues. MAP research team staff signed confidentiality agreements with the CPS agencies. The majority of the data was collected electronically on laptop computer and uploaded to a secure internet site immediately post-testing. Any hard copy information is maintained in locked offices within locked cabinets, and consent forms are separated from all other materials.

### **Monitoring Youth Responses to Study Involvement**

Given the sensitive nature of the questions, in conjunction with the nature of the population of participants, several questions were incorporated into the MAP questionnaire package to



measure reactivity to the research. Specifically, participants were asked to respond to a set of identical questions at the beginning and end of the questionnaire package on a 0 (not at all) to 6 (a lot) scale. An analysis of differences in responses to pre- and post-questionnaire items indicated that participants were slightly less relaxed ( $M=4.4$  drop to  $4.0$ ; repeated-measures  $t(1,157)=3.281$ ,  $p<.01$ ) and happy ( $M=4.2$  drop to  $3.7$ ; repeated-measures  $t(1,158)=4.29$ ,  $p<.01$ ), after completing the initial MAP questionnaire package. Despite the slight negative impact of the questionnaire package on participant mood, the youth positively regarded the study on six other evaluation questions. Youth indicated that the study was interesting ( $M=4.1$ ,  $SD=1.2$ ), the questions were clear ( $M=4.7$ ,  $SD=1.3$ ), the questions were not distressing ( $M=2.4$ ,  $SD=1.2$ ), and completing the questionnaire was not upsetting ( $M=1.1$ ,  $SD=1.0$ ). Youth responded favorably ( $M=4.7$ ,  $SD=1.3$ ) when asked if they still would have agreed to get involved in the study if they had known in advance what completing the questionnaire package would be like.

## Results

The overall pattern of results are that youth who identified themselves as having an Aboriginal background did not significantly differ from youth who did not identify any Aboriginal background. The Aboriginal youth did not differ from the non-Aboriginal youth on their report of lifetime specific child maltreatment types (CTQ), nor on exposure to intimate partner violence (CEVQ). Aboriginal and Non-Aboriginal youth scored similarly on the CTQ physical abuse subscale ( $M=.94$ ,  $SD=1.23$  and  $M=1.02$ ,  $SD=1.12$ , respectively), sexual abuse subscale ( $M=.41$ ,  $SD=.95$  and  $M=.44$ ,  $SD=.94$ , respectively), emotional abuse subscale ( $M=1.12$ ,  $SD=1.15$  and  $M=1.31$ ,  $SD=1.18$ , respectively), emotional neglect subscale ( $M=2.52$ ,  $SD=1.36$  and  $M=2.30$ ,  $SD=1.16$ , respectively), as well as the physical neglect subscale ( $M=1.58$ ,  $SD=.53$  and  $M=1.48$ ,  $SD=.55$ , respectively).

The Aboriginal group did not significantly differ from the Non-Aboriginal group on PTSD symptomatology as measured by the total score on the Trauma Symptom Checklist for Children (TSCC). Overall, Aboriginal youth did not report a significantly higher CPS worker identification score [Aboriginal: Mean= $4.16$  ( $SD=1.27$ ); Non-Aboriginal: Mean= $3.97$  ( $SD=1.13$ )]. The endorsement pattern of ever having used cannabis in the past 12 months was not significantly different among groups (Aboriginal: 63%; Non-Aboriginal: 49%).

Given the small and unevenly distributed cell sizes in the contingency table between Aboriginal status and use of cannabis during the past 12 months, a Fisher's Exact Test was conducted to examine the significance of the association between these two variables (Fisher, 1922, 1954; for a discussion of the advantage of Fisher's Exact Test over Chi-square estimation in cases of small and unevenly distributed cell sizes in contingency table, see Agresti, 1992). First, a median split was carried out on the CPS worker identification score. Afterwards, two separate Fisher's Exact Tests were run: The first with both Aboriginal and Non-Aboriginal youth who scored below the median on the CPS worker identification score and the second with both Aboriginal and Non-Aboriginal youth who scored above the median on the CPS worker identification score. The conditional distributions in the two contingency tables were then compared using the Test of Homogeneity of Odds Ratio.

The Fisher's Exact Test indicated that the association between Aboriginal Status and cannabis use among youth who scored below the median on the CPS worker identification scales was significant ( $p<.05$ ). Aboriginal youth who reported low identification with their caseworker were 5.47 times more likely to have ever used cannabis in the past 12 months compared to Non-Aboriginal youth who reported a low identification with their caseworker (95% confidence interval= $1.20-24.87$ ) (see Table 1). The association between Aboriginal Status and cannabis use among youth who scored

## Cannabis Use Among Aboriginal Youth in the non-Aboriginal Child Protection Services System

Table 1. Cannabis use among Aboriginal and Non-Aboriginal Youth – Low Identification with CPS Worker (N size among groups reported)

	Aboriginal*	Non-Aboriginal	Totals
Used cannabis at least once in the past 12 months	13 (87%)	107 (54%)	120
Did not use cannabis in the past 12 months	2 (13%)	90 (46%)	92
Totals	15 (100%)	197 (100%)	212

Note. Difference between Aboriginal and Non-Aboriginal groups: \*  $p < .05$

Table 2. Cannabis use among Aboriginal and Non-Aboriginal Youth – Medium-High Identification with CPS Worker (N size among groups reported)

	Aboriginal	Non-Aboriginal	Totals
Used cannabis at least once in the past 12 months	9 (43%)	74 (46%)	83
Did not use cannabis in the past 12 months	12 (57%)	87 (54%)	99
Totals	21 (100%)	161 (100%)	182

Note. No significant difference between Aboriginal and Non-Aboriginal groups ( $p > .05$ )

at or higher than the median on the CPS worker identification scale was not statistically significant (see Table 2). A test of the Homogeneity of the Odds Ratios between the two contingency tables (i.e., low identification with CPS worker versus medium-high identification with CPS worker) was significant (Breslow-Day Chi-Square=4.52,  $p < .05$ ). These results suggest that the statistically significant association between Aboriginal youth and cannabis consumption is more frequent among those who are low in identification with their CPS worker than those who are not.

## Discussion

The results partially support our hypothesis. Aboriginal youth who report a medium-high (i.e., positive) identification with their CAS caseworker reported less cannabis use during the past 12 months than Aboriginal youth who reported a more negative (i.e., low) identification with their CAS caseworker. However, cannabis use was not lower among Aboriginal youth compared to non-Aboriginal youth overall, as was hypothesized. Instead, the significant difference in cannabis

use among Aboriginal youth is driven by a much higher likelihood of use over the past 12 months among those who report a low identification with their CAS caseworker. As such, poor caseworker identification may present as a significant risk factor for these youth. More generally, these results suggest that caseworker identification may be an important variable for understanding Aboriginal youth outcomes in the child protection services system.

This study allowed youth to endorse multiple ethnicities and, thereby, approach Aboriginal identity more broadly than categorically. This study did not address the extent to which youth engaged in Aboriginal practices, were connected to Aboriginal Friendship or community centres, or maintained contact with Aboriginal siblings, families, and heritage community. Further, the study did not assess the ethnicity of caseworkers and the match of youth ethnicity to caseworker ethnicity is unknown. Given that most of these youth have been involved with CPS over a number of years, it may be important to consider caseworkers as potential attachment figures and a moderate-to-high positive identification with caseworkers may be a protective factor, at least with respect to engaging in cannabis use, as compared to youth who report low levels of positive identification with their caseworker. Identification with caseworker is not typically formally assessed by youth within CPS and the current 7-item scale may be useful in this regard. In general, research with maltreated youth considering substance use has not considered empirically youth perceptions of aspects of their relationship with their caseworker. In this study, most caseworkers were the legal guardians in whole, or in part, for most of these youth. These preliminary results suggest that identification with caseworker may be a fruitful area to pursue in further research on adolescent adjustment among those that are involved with the child welfare system and, given the context of Aboriginal youth in non-Aboriginal child welfare agencies, may be salient in considering Aboriginal youth outcomes.

Finally, it is important to consider that these results may not generalize to Aboriginal youth within an Aboriginal child welfare agency, or non-urban Aboriginal youth, or youth solely identifying themselves as having an Aboriginal background.

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