

Two Years of Relationship-Focused Mentoring for First Nations, Métis, and Inuit Adolescents: Promoting Positive Mental Health

Claire V Crooks^{2,3} · Deineria Exner-Cortens^{2,4} · Sarah Burm¹ · Alicia Lapointe¹ · Debbie Chiodo²

© Springer Science+Business Media New York 2016

Abstract First Nations, Métis, and Inuit (FNMI) youth are disproportionately affected by a range of negative health outcomes including poor emotional and psychosocial well-being. At the same time, there is increasing awareness of culturally-specific protective factors for these youth, such as cultural connectedness and identity. This article reports the findings of a mixed-methods, exploratory longitudinal study on the effects of a culturally-relevant school-based mentoring program for FNMI youth that focuses on promoting mental well-being and the development of cultural identity. Participants included a cohort of FNMI adolescents whom we tracked across the transition from elementary to secondary school. We utilized data from annual surveys ($n = 105$) and a subset of youth whom we interviewed ($n = 28$). Quantitative analyses compared youth who participated in 1 or 2 years of mentoring programs with those who did not participate. At Wave 3, the 2-year mentoring group demonstrated better mental health and improved cultural identity, accounting for Wave 1 functioning. These results were maintained when sex and school climate were accounted for in the models. Sex did not emerge as a significant moderator; however, post hoc analyses with simple slopes indicated that the mentoring program benefited girls more than boys for both outcomes. Interview data were coded and themed through a multi-phase process, and revealed that the mentoring program helped participants develop their intrapersonal and interpersonal

Sarah Burm and Alicia Lapointe are listed alphabetically.

✉ Claire V Crooks
ccrooks@uwo.ca

¹ Faculty of Education, Western University, 1137 Western Road, London, ON N6G 1G7, Canada

² CAMH Centre for Prevention Science, 100-100 Collip Circle, London, ON N6G 4X8, Canada

³ Present Address: Faculty of Education, Western University, 1137 Western Road, London, ON N6G 1G7, Canada

⁴ Present Address: Faculty of Social Work, University of Calgary, Calgary, AB, Canada

skills, and enhanced their cultural and healthy relationships knowledge base. Collectively, the quantitative and qualitative components of this study identify multiple years of culturally-relevant mentoring as a promising approach for promoting well-being among FNMI youth.

Keywords Protective factors · Mentoring · Indigenous populations · Adolescent development · Cultural connectedness

Introduction

As a result of underlying inequalities that lead to issues such as higher rates of depression and suicidality (Lemstra et al., 2008; Weir & Wallington, 2001) and adverse health-related behaviors (Greenwood & DeLuuw, 2012), First Nations, Métis, and Inuit (FNMI) youth in Canada experience disproportionate rates of many preventable disorders and conditions. Recently, however, there has been an important shift away from the focus on perceived individual deficits towards strengths-based research identifying protective factors that promote resiliency among these youth who as a group experience such disproportionate risk.

Cultural connectedness (i.e., the extent to which individuals are embedded in their cultural group; also referred to as enculturation) has emerged as a culturally-specific protective factor, whereby a strong, positive sense of cultural identity is associated with a number of indicators of well-being and positive functioning (Snowshoe, Crooks, Tremblay, Craig, & Hinson, 2015); cultural connectedness may function in part by helping to guard against discrimination (Whitbeck, McMorris, Hoyt, Stubben, & Lafromboise, 2002). However, this construct is broader than simply engaging in cultural activities. For example, while Yu and Stiffman (2007) found no positive effect for participation in generic cultural activities on alcohol use outcomes, strong cultural pride and spirituality were associated with reduced problem alcohol use, particularly among youth with additional risk factors. Further, there is evidence that cultural connectedness may constitute a unique protective factor over and above related notions of positive sense of self. Among 5th grade American Indian children, for example, enculturation was positively associated with school success, independent of self-esteem (Whitbeck, Hoyt, Stubben, & Lafromboise, 2001). Cultural connectedness may also be an important buffer against the heightened rates of suicide observed in many FNMI communities (Chandler, Lalonde, Sokol, & Hallett, 2003).

In parallel with the increasing interest in strengths-based research, programming has shifted to embrace this positive approach. A recent study eliciting program recommendations from frontline professionals working with FNMI youth highlighted a specific focus on programs that are culturally appropriate, enabling and empowering, and sustainable (June, Landais, Kolaheedooz, & Sharm, 2015). Further, building strength and resiliency among FNMI youth has the added benefit of potentially decreasing risk behaviors. For example, Ames, Rawana, Gentile, and Morgan (2013) argue that the link between depression and heavy drinking among FNMI youth demonstrates the need for effective mental health promotion programs,

since improving mental health would have a significant impact on problem alcohol consumption. The *Uniting Our Nations* mentoring programs that were evaluated in this study embody this commitment to a strengths-based approach in their design and implementation.

The Fourth R: Uniting Our Nations Mentoring Programs

The Fourth R is an evidence-based, healthy relationships and violence prevention program that was designed for universal implementation in classrooms (i.e., all youth in the classroom are eligible to participate; Wolfe et al., 2009; Wolfe, Crooks, Chiodo, Hughes, & Ellis, 2012). In 2004, the Fourth R program team began working with the local school board and the three local First Nations communities to develop and evaluate school-based, culturally-relevant, relationship-focused programming with and for First Nations¹ students.

The Fourth R team has since developed numerous initiatives for First Nations youth, including two mentoring programs (one for elementary students, and another for secondary students). Although well-designed and implemented mentoring programs are a promising strategy for promoting positive social attitudes and relationships and preventing substance abuse among all youth (DuBois et al., 2011), mentoring is a particularly appropriate approach with FNMI youth because it is conceptually consistent with traditional values and models of learning, especially if the mentors share the same heritage (Klinck et al., 2005). Mentoring may also potentially offset other more negative relationships that youth may be experiencing (Fleming & Ledogar, 2008). Although there is limited mentoring research with FNMI populations, the larger literature on mentoring emphasizes the importance of forming close, enduring connections between mentors and youth that foster positive developmental changes (Rhodes & DuBois, 2008). Furthermore, DuBois, Holloway, Valentine, and Cooper (2002) argue for the development and implementation of mentoring programs that adhere to best practices, such as sufficient duration and a focus on strong relationships. Consistent with these best practices, the *Uniting Our Nations* mentoring programs were designed to prioritize strong relationships over time.

At the elementary level (7th and 8th grade), two First Nations young adults who mentor groups of students for 1 h per week facilitate the 18-week program. The program is based on the Medicine Wheel² life cycles. Beginning in the fall (West/Spiritual quadrant), sessions address student interests, the Creation Story, and creating positive attitudes and atmospheres. The winter (North/Physical quadrant) sessions address bullying, healthy eating, and First Nations' representations in media. In the spring (East/Emotional quadrant), sessions address sharing and listening, goal setting, and positive decision-making skills. Summer (South/Mental

¹ Although there were First Nations, Métis, & Inuit youth in our sample, the mentoring programs were developed for a First Nations context with relevance to the local nations. Approximately 93% of participants in this study identified as First Nations.

² Those unfamiliar with the Medicine Wheel teachings and who wish to understand the implications for education are referred to Bell, N. (2014). Teaching by the Medicine Wheel. *Education Canada, June issue*. Available at: <http://www.cea-ace.ca/education-canada/article/teaching-medicine-wheel>.

quadrant) sessions address communication skills, peer pressure, personal strengths, and handling peer conflicts. All sessions include a combination of structured, skills-based activities, cultural teachings, and group discussion. The elementary mentoring program was available at four of the 44 elementary schools included in this study. The school district selected these schools to implement the program because they had the highest number of FNMI students in the district.

At the secondary level (9th–12th grade), the program involves peer mentors and is designed to support the development of healthy and positive relationships between junior (grade 9) and senior (grades 10 through 12) secondary students, who participate as mentees and mentors, respectively. This program facilitates student mentees and mentors in a 1:1 ratio. They meet during lunchtime on a weekly basis over the course of the school year to engage in a range of activities together. An FNMI adult facilitator and a teacher at the school coordinate the sessions and provide support for the mentoring participants. The secondary mentoring program was available at three of the 17 secondary schools included in this study. As was the case with elementary schools, the school district selected these schools based on FNMI student enrolment numbers.

Although previous research with these programs has offered preliminary support for positive outcomes (Crooks, Chiodo, Thomas, & Hughes, 2009; Crooks et al., 2015), this research was cross-sectional in nature and did not compare participants with non-participants. The purpose of our exploratory mixed-methods study was to undertake a more rigorous, longitudinal evaluation of the effects of 1 or 2 years of program participation on positive well-being, as assessed by mental health and cultural identity, across the transition from elementary to secondary school.

Method

Participants

Participants in this study were FNMI students from a large school district in southwestern Ontario. The majority of the 105 students who completed surveys at all three waves (2011, 2012, 2013) identified as First Nations (93%). Figure 1 shows the flow of participants from recruitment through the final wave of the study. At Wave 1, we conducted interviews with a subsample of 8th grade youth. Only those interview participants who were involved in mentoring at Wave 1 were included in these interviews because the non-mentored youth were asked different questions. Sample descriptive statistics are provided in Table 1. Youth involved in the interviews received a \$10 gift card to a local merchant for participation.

Procedure

We distributed information letters and parental consent forms to principals in participating schools, and asked the principals to send these forms home to all parents/guardians of students in grade 8 who self-identified as FNMI through the school board's Self-Identification for Aboriginal Students Policy. We also

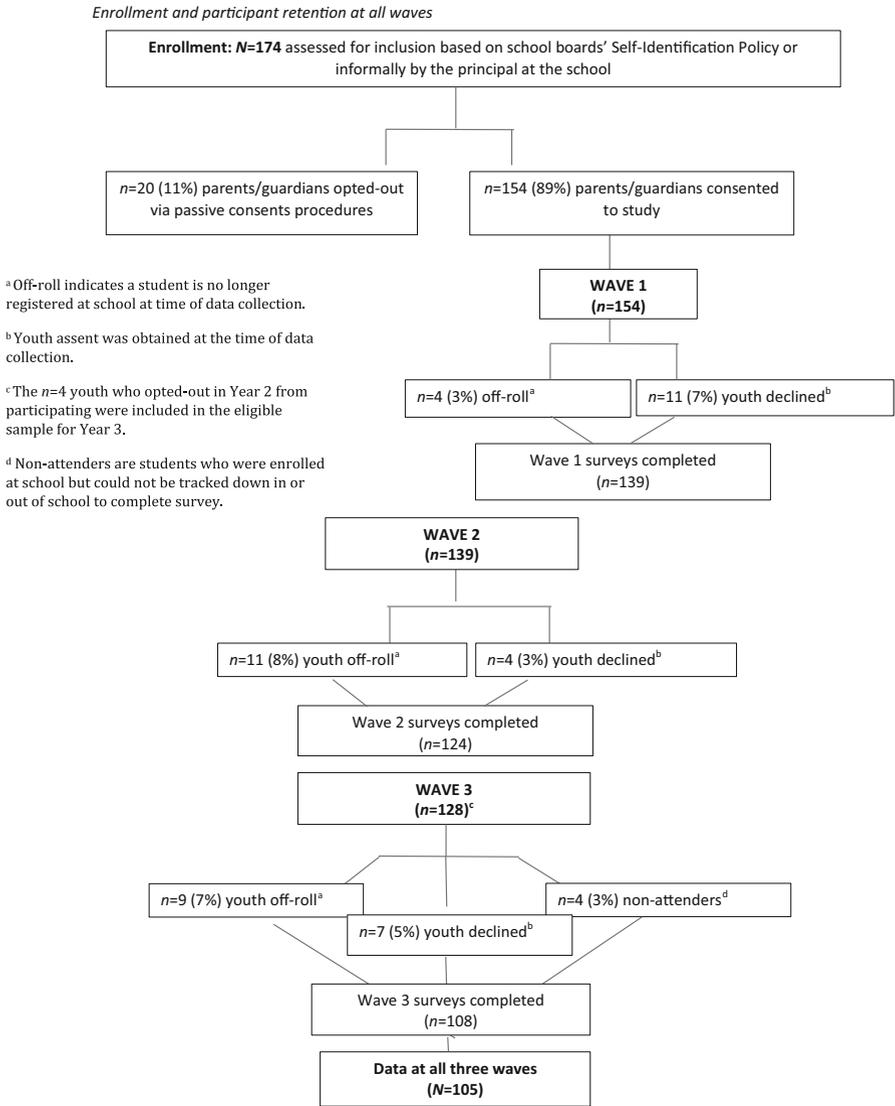


Fig. 1 Enrollment and participant retention at all waves

encouraged schools to include other FNMI students who may not have self-identified as such in their registration documents, but who lived in a First Nations community or actively participated in First Nations programming and cultural events. Due to an atypically small grade 8 cohort in the recruitment year, we added a supplementary grade 7 cohort from other schools that were known to have significant populations of FNMI students. To ensure that parents received the study materials, we sent the consent information home with all other school-related consent forms that students received at the beginning of each school year. We

Table 1 Sample descriptives, quantitative data, Wave 1 ($N = 105$)

Variable	% (n) ^a
Age, mean (SD), range ^b	12.59 (0.57), 11–14
Sex	
Male	50.5 (53)
Female	49.5 (52)
Grade in school	
Grade 7	39.0 (41)
Grade 8	61.0 (64)
Family structure ^c	
Two parent home	51.9 (54)
Single parent home	38.5 (40)
Other living arrangements	9.6 (10)
Family affluence, mean (SD), range ^d	4.83 (1.94), 1–8
Aboriginal ancestry ^b	
First Nations	93.2 (96)
Métis	2.9 (3)
Inuit	1.0 (1)
Mixed ancestry	1.9 (2)
No First Nations/Métis/Inuit ancestry claimed	1.0 (1)
Mentoring recipient ^b	
Yes	17.5 (18)
No	82.5 (85)

^a Unless otherwise indicated

^b $n = 103$

^c $n = 104$

^d $n = 101$

directed parents to send back the consent forms only if they did not wish for their children to participate (i.e., if a consent form was not returned, this was taken to indicate parental consent). We also obtained youth assent on the day of data collection at each study wave. Eleven percent of parents opted out of the study at Wave 1; an additional 13% of students opted out of the study across the other two waves. Thus, the parent consent/youth assent rate across all waves was 76%. Participants completed a paper-and-pencil survey annually under supervision by research staff during a 40-min period outside of class time. We provided students with written copies of the surveys, and research assistants also read the survey questions aloud to all students to maximize reading comprehension.

To contextualize our findings, we interviewed all 28 students who were involved in mentoring at Wave 1. Interviews were conducted late in the school year. We used a semi-structured interview protocol, and all interviews were audio-recorded and transcribed verbatim. The interview protocol included questions about school

experiences, access to formal and informal supports, extra-curricular and community involvement, and experiences in the mentoring program. All interviews were conducted by research staff who had not been directly involved with the mentoring program.

Quantitative Measures

Mentoring

Mentoring status across the three waves of the study was documented by one of the program facilitators based on whether the individual participated in 50% or more of the mentoring sessions for that particular school year. We created two variables using this information. The first was a dichotomous variable reflecting 50% or more participation in 2 years of mentoring ($n = 18$) as compared to individuals who received no mentoring or who received mentoring in only 1 year ($n = 85$). The 2-year categorization was utilized both because it is consistent with mentoring best practices, and also to address challenges in timing, in that in some cases we collected Wave 1 data a month after the programs had started. We also created a categorical variable with three categories of participants. One group participated in at least half of the sessions for 1 year of elementary mentoring ($n = 19$), another group participated in at least half of the sessions for 2 years of mentoring³ ($n = 17$), and the third group did not participate in mentoring ($n = 63$). Youth who did not participate in mentoring ($n = 63$) came from schools where mentoring was not offered, and so were unable to participate for this reason. Multivariate analyses were run using both versions of this variable; findings were very similar, but to increase clarity, we chose to present multivariate analyses using the categorical version of the variable in this paper.

Positive Mental Health

We assessed positive mental health at Wave 3 using the Mental Health Continuum—Short Form (MHC-SF; Keyes, 2005, 2006). The 14-item MHC-SF taps emotional, social and psychological well-being. Participants responded on a 6-point Likert scale (1 = *never* to 6 = *everyday*). Reliability at Wave 3 was .93. Higher scores indicate better mental health.

Cultural Identity

We assessed cultural identity at Waves 1 and 3. Cultural identity was assessed with the identity sub-scale of the Cultural Connectedness Scale (CCS-Identity; Snowshoe et al., 2015). The 11-item CCS-Identity scale examines key aspects of positive identity among FNMI youth (e.g., “I feel a strong connection to my ancestors”). Participants responded on a 4-point Likert scale (1 = *strongly disagree* to

³ Of the 2-year mentoring group, 29.4% participated in 1 year of elementary and 1 year of secondary mentoring and 70.6% participated in 2 years of elementary mentoring.

4 = *strongly agree*). Higher scores indicate a stronger sense of positive cultural identity. At Wave 1, a short version of this scale was included (4 items; Snowshoe, Crooks, Tremblay, & Hinson, 2016). Reliability for the short form used at Wave 1 was .71. Reliability for the full form used at Wave 3 was .90.

School Climate

We assessed school climate at Wave 1, using 7 items from the California Healthy Kids Survey (Hanson & Kim, 2007). Participants were asked if there was a teacher or some other adult at their school who provided support (e.g., “really cares about me”). Participants responded on a 4-point Likert scale (1 = *none*; 4 = *all of the time*). Higher scores indicate more positive school climate. Reliability at Wave 1 was .88.

Life Satisfaction

We assessed life satisfaction at Wave 1, using 5 items adapted from the Satisfaction with Life Scale (e.g., “the things in my life are excellent”; Gadermann, Schonert-Reichl, & Zumbo, 2010). Participants responded on a 4-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). Higher scores indicate greater global life satisfaction. Reliability at Wave 1 was .80.

Demographics

At Wave 1, we assessed age, sex, grade in school, family structure, family affluence (Currie et al., 2008) and Aboriginal ancestry (i.e., youth could identify as First Nations, Métis, Inuit, mixed ancestry, or non-Aboriginal).

Analysis

We first explored the quantitative data using descriptive statistics for the entire sample ($N = 105$). Bivariate associations between mentoring (2 years vs. 1 or none), the two dependent variables (MHC-SF and CCS-Identity) and potential Wave 1 covariates (age, sex, grade in school, family structure, family affluence, school climate) were then explored using t tests or χ^2 test, as appropriate. To determine covariates for multivariate models, variables related to the dependent variable at the $p < .10$ level were considered for inclusion, and model fit was tested using nested analysis of variance to determine the final models. Based on this analysis, two covariates were selected for both models (sex and school climate). We also controlled for baseline level of psychological functioning in the MHC-SF model (using life satisfaction as a proxy, since the MHC-SF was not administered at Wave 1), and identity in the CCS-Identity model. Post-hoc probing of simple slopes for a Sex by Mentoring interaction was also conducted. We addressed missing data on scales using person-mean substitution (de Gil & Kromrey, 2013; Shrive, Stuart, Quan, & Ghali, 2006), and analyzed data in IBM SPSS Statistics V20 and R V3.0.2.

We coded qualitative data using a multi-phase process. In the first phase, we created a provisional codebook with project interviewers. Two graduate research assistants (who had not participated in project interviews) refined the codebook and established reliability using an iterative process that included extensive team meetings, multiple rounds of test coding, codebook updates and discussion. At the end of this 10-week process, inter-rater reliability (as assessed by Cohen's pooled kappa) was .82, which indicates substantial agreement (Landis & Koch, 1977). Following reliability establishment, we conducted first cycle coding using a blend of descriptive coding, sub-coding and simultaneous coding in order to categorize the data (Saldaña, 2013). Reliability was intermittently checked during the first cycle coding process, and remained substantial (i.e., average kappa was .86). Following first cycle coding, we used initial (or open) coding methods (Saldaña, 2013) to break down and further explore the nuances of the data, and then pattern coding (Saldaña, 2013) to specify themes in the open-coded data. Based on this approach to coding and theming the interview data from participants who were enrolled in mentoring during the first year of the study ($n = 28$; 60.7% female), we identified three overarching themes: (1) intrapersonal, (2) interpersonal, and (3A) cultural learning and (3B) healthy relationships learning. We also compared and contrasted themes by participant sex (coders were blind to participant sex when comparing and contrasting). We coded qualitative data in Dedoose V5.3.22.

The Centre for Addiction and Mental Health Research Ethics Board and the school board research office reviewed and approved all study protocols, including the study's consent procedures. Further approval was granted by the FNMI Advisory Committee of the school board and the Education Board of the local First Nations communities involved.

Results

Quantitative Findings⁴

As shown in Table 2, those who received 2 years of mentoring differed on several background characteristics at Wave 1 compared to those who received 1 year or no years of mentoring. Specifically, participants in 2 years of mentoring were more likely to be younger (also reflected by the finding that more mentoring participants were in grade 7 than grade 8), and somewhat less likely to be in a single parent home than those not receiving two years of mentoring. There were no significant differences in cultural identity, life satisfaction, school climate, participant sex or family affluence at Wave 1 (Table 2).

⁴ Given the school-based nature of this mentoring program, we also included academic outcomes in this evaluation. We found that participation in 2 years of mentoring was related to significantly higher credit accumulation (a proxy for school completion) at Wave 3 ($\chi^2(1, N = 101) = 4.49, p = .034$), as compared to 1 or no years of mentoring. These results also held in a logistic regression model controlling for sex, school climate and the number of late attendances at Wave 1. However, for numerous reasons, we consider these data preliminary and chose not to present them formally here.

Table 2 Bivariate differences between mentoring and non-mentoring participants at Wave 1

Variable	Mean (<i>SD</i>) ^a , 2 years of mentoring (<i>n</i> = 18)	Mean (<i>SD</i>) ^a , 1 or no years of mentoring (<i>n</i> = 85)
Age***	12.17 (0.38)	12.67 (0.57)
Female sex [% (<i>n</i>)]	50.0 (9)	49.4 (42)
Grade 7 [% (<i>n</i>)]**	72.2 (13)	32.9 (28)
Two parent family structure [% (<i>n</i>)] [‡]	72.2 (13)	48.8 (41)
Family affluence	4.50 (1.65)	4.83 (1.96)
First Nations ancestry [% (<i>n</i>)]	100 (18)	91.6 (76)
Cultural identity, short scale	13.39 (2.03)	12.78 (2.05)
Life satisfaction	16.35 (1.73)	15.69 (2.73)
School climate	22.82 (4.64)	22.07 (4.86)

[‡] $p < .10$, ** $p < .01$, *** $p < .001$

^a Unless otherwise indicated

In Wave 3 bivariate analyses, participants receiving 2 years of mentoring reported greater positive cultural identity [CCS-Identity; $M(SD)$, 2 years of mentoring = 36.73 (3.66) compared to $M(SD)$, 1 year or no mentoring = 33.21 (5.32); $t(101) = -2.67$, $p = .009$] and better mental health [MHC-SF; $M(SD)$, 2 years of mentoring = 61.67 (11.51) compared to $M(SD)$, 1 year or no mentoring = 52.03 (14.87); $t(100) = -2.59$, $p = .011$], as compared to those receiving 1 or no years of mentoring. These results were maintained in multivariate models controlling for sex, school climate and the baseline level of the dependent variable, whether we modeled mentoring using the dichotomous or categorical version of the variable. However, models using the categorical version highlight that the receipt of 2 years of mentoring was related to significantly better mental health and cultural identity scores as compared to those receiving no mentoring, while the receipt of only 1 year of elementary mentoring did not result in significant improvements to mental health or identity in this sample, and so we present those models in Table 3.

Although we did not find a significant Sex by Mentoring interaction in any model, post hoc probing of simple slopes demonstrated that the association between 2 years of mentoring and MHC-SF was only significant for females ($b = 11.23$, $p = .037$), and that for those who did not receive any mentoring, mental health at Wave 3 was significantly worse for females than males ($b = -8.75$, $p = .015$). In the Identity model, the association between 2 years of mentoring and greater positive identity was significant for females only ($b = 3.95$, $p = .015$), and for those who did not receive any mentoring, females had significantly lower identity scores at Wave 3 than males ($b = -2.11$, $p = .045$). Collectively, these post hoc analyses suggest that receiving 2 years of the program had a specific buffering impact for female youth in this sample.

Table 3 Multivariate models

	<i>b</i> (<i>SE</i>)	95% CI	<i>p</i> value
<i>Dependent variable: MHC-SF, Wave 3 (n = 96)</i>			
Mentoring			
Two years vs. none	7.60 (3.71)	(0.22, 14.98)	.044
One year vs. none	2.79 (3.54)	(-4.24, 9.82)	0.43
Sex, female	-6.53 (2.88)	(-12.25, -0.80)	.026
School climate	0.39 (0.29)	(-0.19, 0.97)	.18
Life satisfaction	1.31 (0.54)	(0.23, 2.39)	.018
<i>Dependent variable: CCS-Identity, Wave 3 (n = 95)</i>			
Mentoring			
Two years vs. none	3.08 (1.12)	(0.86, 5.30)	.0071
One year vs. none	0.27 (1.07)	(-1.87, 2.40)	.81
Sex, female	-1.65 (0.85)	(-3.33, 0.030)	.054
School climate	0.21 (0.096)	(0.021, 0.40)	.030
Life satisfaction	1.10 (0.21)	(0.68, 1.52)	<.001

Adjusted R^2 , MHC-SF model: 15.6%; Adjusted R^2 , CCS-Identity model: 34.0%; MHC-SF: Mental Health Continuum-Short Form; CCS-Identity: Cultural Connectedness Scale-Identity Sub-Scale

Qualitative Findings

From the interviews, we found that elementary mentoring participants looked forward to the sessions because they led to the development of positive relationships with fellow group members and facilitators; gave opportunities for participation in fun, hands-on activities; and allowed for learning about their culture and the development of valuable healthy relationship skills. We now present themes that highlight the positive impacts of the mentoring program, as discussed by our participants as they shared their personal experiences and insights. While we did examine these themes by sex, results revealed no key differences in terms of students' responses to the mentoring program, and so themes are presented for males and females together.

Theme 1: Intrapersonal

Participants expressed that the program influenced their personal growth, self-confidence, and overall comfort in group settings. More specifically, program participation affirmed students' cultural backgrounds, influenced youth to embrace their individuality, and enabled students to gain confidence when speaking in groups. One participant appreciated the program "because they [facilitators] show us not to be afraid of who we are" (Female). In addition to enhancing their self-appreciation and self-confidence, another participant discussed the valuable leadership skills that were gained: "it also gives you more confidence speaking to a group of people" (Male).

Theme 2: Interpersonal

Besides providing opportunities for confidence building, participants also described the interpersonal impacts of the mentoring program—mainly the opportunities they had to meet new people, strengthen existing peer relationships, and build connections with program facilitators. The mentoring program cultivated opportunities for students to develop and maintain friendships, and build support networks within their school communities. The program's safe and welcoming environment created a supportive space where students felt comfortable being themselves, and served as a bridge for building healthy relationships and mutual understanding among group members: "We get to talk with different people that we usually don't talk with" (Male).

Students also described how, as the program progressed, they witnessed the relationships they had with their peers flourish and become more intimate. Specifically, they identified and described the change in peer relations from the onset of the program to its conclusion, with most participants communicating that they spoke (and enjoyed speaking) with their peers more often. For others, there was a prominent shift in how they approached and respected one another: "We were friends and all but we didn't talk as much, but now I talk almost every day when we see each other in the hall" (Female).

"I respect them differently" (Male).

The opportunity to build and strengthen bonds also extended to the relationships students developed with program facilitators. Participants communicated that facilitators were approachable, trustworthy, and relatable: "The mentors...would talk to you as if they were like your friend and not like your teacher" (Female). "They are really nice to us all the time and they treat us well and if we are having a problem we can go and talk to them about it" (Female). Participants also identified a different type of relationship with mentors compared with teachers: "...we talk to them more than we usually do to the teachers...because with teachers, we do listen but with the mentors they make sure we know and we keep it locked down. Sometimes teachers don't do that, so it doesn't always click in. But they always try to make sure we remember" (Male).

Facilitators purposefully cultivated opportunities for students to participate in honest and open dialogue, specifically in relation to their cultural backgrounds and healthy relationships. Participants described the importance of sharing and discussing their cultures with facilitators, "because we [facilitator and participant] can understand each other and our culture so I can talk to them [facilitators] more about it" (Female). Due to facilitators' understanding of First Nations cultures and their shared cultural backgrounds with participants, the mentoring program was described as more affirming and welcoming than students' classes, and through participating in the mentoring program, students felt accepted and understood: "It feels like they understand what I am trying to say and if it's about my culture then they will know what I am trying to say" (Female). "We can talk about more open things and they [facilitators] are our cultural background too so it seems like we can open up to them more than we can to our teacher" (Female).

Theme 3A: Learning-Culture

Culture served as a mechanism to establish an environment of trust and equality between students and facilitators. Many students identified the need for and benefit of having a venue, such as the mentoring program, to regularly meet with their FNMI peers. The program provided opportunities for students to connect their cultural teachings to their current life experiences, both in and outside of school: “It gives me time to think about more of my culture and more about the things around me” (Male).

I like it because it teaches, it really opens your eyes about things because a couple a weeks ago we learned about Natives in the media and ya know like Pocahontas and Halloween costumes are kind offensive, and yes, yes they really are and its stereotypical so we are learning about eye opening subjects, such as that and cultural teachings (Female).

Cultural teachings were presented in ways that were relevant to the experiences and challenges that many FNMI youth encounter throughout their adolescent years. Facilitators relied on culturally relevant pedagogical approaches, such as community circles and storytelling, to facilitate learning and reinforce the foundational principles upon which the program is built. Emphasis was placed on the whole person, balance, and the importance of nourishing oneself so that students remained healthy, confident, and strong:

Like they told us about how there is the four things there’s the spiritual, physical, mental, and emotional; as I started thinking about that, it kinda told me to, ah, do things differently. So I was thinking well if I can get my grades up, I can help me mentally. If I can exercise and eat more I can physically and spiritual and everything I can try and get it up a higher level than it already is (Male).

Theme 3B: Learning-Healthy Relationship Skills

As a result of their participation, youth discussed Fourth R communication and relationship strategies and articulated how they would apply their learning in real-life situations. Participants often referenced specific Fourth R strategies taught in the program, such as differences in “...how passive, aggressive, and assertive people talk...” (Male).

Another participant explained,

well [when] someone tries to talk you into doing something...you can avoid the problem, you can say, “hold on I gotta go do this real quick and I will be back.” Or you can try to use your words. You can say, “I don’t want to do this because I might get in trouble or I might get hurt” (Male).

Similarly, another participant expressed how they learned that it is important to share their feelings with others, “we learned that when you don’t feel comfortable it’s okay...you can tell them, and it’s okay that you can ask them

different kinds of things if you don't feel comfortable right away..." (Female). In addition to learning about positive communication skills and how to employ Fourth R strategies when they experience interpersonal conflict, participants also explored how to handle bullying and how to intervene when they see someone being bullied. In sum, the communication skills that participants developed opened up possibilities for dealing with bullying so that "you [participants] can handle it" (Male).

Discussion

This exploratory, mixed-methods evaluation offers promising evidence that sufficient dosage of culturally-relevant, strengths-based mentoring programs can have positive impacts on the well-being of FNMI youth. Quantitative findings identifying the promotion of positive mental health among participants receiving 2 years of mentoring were affirmed by the qualitative description of the positive impact the program had on participants' self-confidence, interpersonal relationships, coping/conflict resolution skills and cultural connectedness. Further, because the mentoring program offered participants a culturally sensitive and affirming space to learn about healthy relationships, many students began to embrace their individuality, and gained opportunities to explore their cultural identity—a key step in the process of identity formation (Phinney, 1989). This exploration was also grounded in the development of meaningful relationships with FNMI peers and facilitators. Overall, the mentoring program provided a culturally-sensitive venue for FNMI students to experience and benefit from healthy relationships programming. It is interesting to note that although mentoring participants qualitatively identified positive gains after 1 year of mentoring, the quantitative results did not show improvement until students had participated in 2 years of mentoring. This sequence of positive benefits suggests that some of the intrapersonal and interpersonal growth described by mentees after the first year might serve as possible mediators of the positive mental health and cultural identity benefits seen after year two; this is an important topic for future research.

Strengths and Limitations

This study's strengths include the mixed-methods nature of the research, the longitudinal design, and the inclusion of cultural connectedness as a culturally-relevant protective factor. Nonetheless, there are several limitations. The sample is relatively small, even though extensive efforts went into recruiting an entire cohort within a large school board. The sample of students receiving mentoring is even smaller; however, triangulation between the quantitative and qualitative data increase confidence in the findings. Within this small sample, only 7% of participants were Métis or Inuit, which meant we were unable to look at the impact of a First Nations-focused approach with other FNMI groups. There are also likely key differences at the school level (most notably whether or not the mentoring program was even available to students). Ideally, these school-level differences would be accounted for within a multi-level modelling framework, but due to our

small student sample, we did not have the statistical power for this approach (Bell, Morgan, Schoeneberger, & Loudermilk, 2010). Thus, we feel it is important for the reader to note that youth did not fall neatly into intervention groups, as some youth had no access to the program, some had 1 year of access to the program (i.e., they might have moved from an elementary school with the program to one without), and some had the opportunity for 2 years of access. However, while this is an important limitation, we feel the finding around the lack of significant difference between youth who received 1 year of mentoring as compared to those who received no mentoring (because their school did not offer the program) somewhat mitigates this concern. We were also unable to model any school-level differences, although we did include school climate as a proxy for these differences. We also note that several of our measures, including the MHC-SF, have not been evaluated in FNMI populations; this is a common limitation for research with marginalized youth, but is something that future measure development and testing should address. Further, although participants' ability to provide concrete examples of program positives underscores the validity of our findings, we note that the interview protocols may have created a demand for positive feedback, even though interviewees were encouraged to share positive and negative experiences. Specifically, criticising the program may run counter to cultural values around respect and humility, and at least partly account for the virtual absence of negative examples in our data.

A final important consideration in evaluation research is the relationship of the evaluators to the program. In this case, the first author has led the research program from which these programs emerged since 2006, and the last author has been involved in different capacities over that same period. However, to offset this potential source of bias, all quantitative and qualitative analyses were conducted by the three middle authors, none of whom had previous involvement with the program.

To a large extent, the research design challenges evident in this study are endemic to the emerging field of strengths-based program evaluation with FNMI youth. Issues of sample size, complexity of establishing an appropriate comparison group, and lack of well-established measures are all documented challenges currently facing the field (Crooks, Snowshoe, Chiodo, & Brunette-Debassige, 2013). For example, while the current sample is small compared to other non-FNMI program evaluations, it represents an entire cohort of FNMI youth from a school board with 76,000 students. Furthermore, our sample embodies the messiness of evaluating real-world programs that are up and running; in the case of this program specifically, there were significant ethical prohibitions against any attempt to randomize youth to a program that was already widely viewed to be promoting youth well-being and success in school, even prior to this evaluation. Although these challenges are large and reflect the realities of working with marginalized populations, we encourage researchers to continue to seize opportunities to evaluate these 'messy' programs, in order to move the field forward. There is a clear need for this work; for example, a 2010 review of program evaluations for culturally sensitive interventions with Native American youth found only 11 published studies (Jackson & Hodge, 2010). Researchers can fill this gap with the continued

evaluation of strengths-based approaches, as well as by focusing on the creation of practice-based evidence (Friesen et al., 2012).

Overall, this exploratory study demonstrated that culturally-relevant mentoring for FNMI youth of sufficient duration has the potential to increase well-being, as indexed by positive mental health and cultural identity, and demonstrated that these effects may be related to intrapersonal and interpersonal growth, as well as learning about healthy relationships and culture; however, additional study is needed in order to test and confirm these latter mechanisms. Our findings must be considered preliminary in light of the numerous methodological challenges outlined in the limitations section of this paper. Additional research is also needed in order to determine why programming may be more salient for girls. This study contributes to a growing strengths-based literature identifying factors that increase resiliency and well-being among FNMI youth (Ames et al., 2013; Smokowski, Evans, Cotter, & Webber, 2013). These protective factors are important in their own right (i.e., major health authorities recognize that true health incorporates positive functioning and not merely the absence of disease), but also because they are associated with lower rates of depression and problem behaviors (Ames et al., 2013; Fleming & Ledogar, 2008). The mentoring programs evaluated in this study demonstrate how culturally-relevant approaches can be utilized in the mainstream education system to create significant benefits for FNMI youth.

Compliance With Ethical Standards

Conflict of Interest There are no conflicts of interest for any of the authors of this paper.

References

- Ames, M. E., Rawana, J. S., Gentile, P., & Morgan, A. S. (2013). The protective role of optimism and self-esteem in depressive symptom pathways among Canadian Aboriginal youth. *Journal of Youth and Adolescence*, *44*, 142–154.
- Bell, B. A., Morgan, G. B., Schoeneberger, J. A., & Loudermilk, B. L. (2010). *Dancing the sample size limbo with mixed models: How low can you go?* <http://support.sas.com/resources/papers/proceedings10/197-2010.pdf>.
- Chandler, M. J., Lalonde, C. E., Sokol, B. W., & Hallett, D. (2003). Personal persistence, identity development, and suicide: A study of native and non-native North American adolescents. *Monographs of the Society for Research in Child Development*, *68*(2), vii-130.
- Crooks, C. V., Burleigh, D., Snowshoe, A., Lapp, A., Hughes, R., & Sisco, A. (2015). A case study of culturally relevant school-based programming for First Nations youth: Improved relationships, confidence and leadership, and school success. *Advances in School Mental Health Promotion*, *8*(4), 216–230.
- Crooks, C. V., Chiodo, D. C., Thomas, D., & Hughes, R. (2009). Strengths-based programming for First Nations youth in schools: Building engagement through healthy relationships and leadership skills. *International Journal of Mental Health and Addiction*. doi:10.1007/s11469-009-9242-0.
- Crooks, C. V., Snowshoe, A., Chiodo, D., & Brunette-Debassige, C. (2013). Navigating between rigour and community based research partnerships: Building the evaluation of the Uniting Our Nations health promotion program for FNMI youth. *Canadian Journal of Community Mental Health*, *32*(2), 13–25.
- Currie, C., Molcho, M., Boyce, W., Holstein, B., Torsheim, T., & Richter, M. (2008). Researching health inequalities in adolescents: The development of the Health Behavior in School-Aged Children (HBSC) Family Affluence Scale. *Social Science and Medicine*, *66*, 1429–1436.

- de Gil, P. R., & Kromrey, J. D. (2013). What score should Johnny get? Missing_Items SAS[®] macro for analyzing missing item responses on summative scales. <http://support.sas.com/resources/papers/proceedings13/233-2013.pdf>. Accessed 21 April 2015.
- DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology, 30*(2), 157–197.
- Dubois, D. L., Portillo, N., Rhodes, J. E., Silverthorn, N., & Valentine, J. C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest, 12*, 57–91.
- Fleming, J., & Ledogar, R. J. (2008). Resilience and Indigenous spirituality: A literature review. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health, 6*, 47–64.
- Friesen, B. J., Cross, T. L., Jivanjee, P. R., Gowen, L. K., Bandurraga, A., Bastomski, S., et al. (2012). More than a nice thing to do: A practice-based evidence approach to outcome evaluation in Native youth and family programs. In E. Chang & C. A. Downey (Eds), *Handbook of race and development in mental health* (pp. 87–106). New York: Springer.
- Gadermann, A. M., Schonert-Reichl, K. A., & Zumbo, B. D. (2010). Investigating validity evidence of the Satisfaction with Life Scale adapted for children. *Social Indicators Research, 96*, 229–247.
- Greenwood, M., & DeLeeuw, S. N. (2012). Social determinants of health and the future well-being of Aboriginal children in Canada. *Paediatric Child Health, 17*, 381–383.
- Hanson, T. L., & Kim, J. O. (2007). *Measuring resilience and youth development: The psychometric properties of the Healthy Kids Survey: Issues and answers*. San Francisco, CA: Regional Education Laboratory West.
- Jackson, K. F., & Hodge, D. R. (2010). Native American youth and culturally sensitive interventions: A systematic review. *Research on Social Work Practice, 20*, 260–270.
- June, K. Y., Landais, K., Kolahdooz, F., & Sharm, S. (2015). Factors influencing the health and wellness of urban Aboriginal youths in Canada: Insights of in-service professionals, care providers, and stakeholders. *American Journal of Public Health, 105*, 881–890.
- Keyes, C. L. M. (2005). The subjective well-being of America's youth: Toward a comprehensive assessment. *Adolescent & Family Health, 4*, 3–11.
- Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76*, 395–402.
- Klinck, J., Cardinal, C., Gibson, N., Bisanz, J., & da Costa, J. (2005). Mentoring programs for Aboriginal youth. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health, 3*, 109–130.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*, 159–174.
- Lemstra, M., Neudorf, C., Mackenbach, J., D'Arcy, C., Scott, C., Kershaw, T., et al. (2008). Risk indicators for depressed mood in youth: Limited association with Aboriginal cultural status. *Paediatrics & Child Health, 13*, 285–290.
- Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *The Journal of Early Adolescence, 9*, 34–49.
- Rhodes, J. E., & DuBois, D. L. (2008). Mentoring relationships and programs for youth. *Current Directions in Psychological Science, 17*(4), 254–258.
- Saldaña, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE Publications Inc.
- Shrive, F. M., Stuart, H., Quan, H., & Ghali, W. A. (2006). Dealing with missing data in a multi-question depression scale: A comparison of imputation methods. *BMC Medical Research Methodology, 6*, 57.
- Smokowski, P. R., Evans, C. B. R., Cotter, K. L., & Webber, K. C. (2013). Ethnic identity and mental health in American Indian youth: Examining mediation pathways through self-esteem, and future optimism. *Journal of Youth and Adolescence, 43*, 343–355.
- Snowshoe, A., Crooks, C. V., Tremblay, P., Craig, W. M., & Hinson, R. E. (2015). Development of a cultural connectedness scale for First Nations youth. *Psychological Assessment, 27*, 249–259.
- Snowshoe, A., Crooks, C. V., Tremblay, P. F., & Hinson, R. E. (2016). Cultural connectedness and its relation to mental wellness for First Nations youth. *The Journal of Primary Prevention*. doi:10.1007/s10935-016-0454-3.
- Weir, E., & Wallington, T. (2001). Suicide: The hidden epidemic. *Canadian Medical Association, 165*, 634–636.

- Whitbeck, L. B., Hoyt, D. R., Stubben, J. D., & LaFromboise, T. (2001). Traditional culture and academic success among American Indian children in the Upper Midwest. *Journal of American Indian Education, 40*, 48–60.
- Whitbeck, L. B., McMorris, B. J., Hoyt, D. R., Stubben, J. D., & LaFromboise, T. (2002). Perceived discrimination, traditional practices, and depressive symptoms among American Indians in the upper Midwest. *Journal of Health and Social Behaviour, 43*(4), 400–418.
- Wolfe, D. A., Crooks, C. V., Chiodo, D., Hughes, R., & Ellis, W. (2012). Observations of adolescent peer resistance skills following a classroom-based health relationship program: A post-intervention comparison. *Prevention Science, 13*, 196–205.
- Wolfe, D. A., Crooks, C. V., Jaffe, P. G., Chiodo, D., Hughes, R., Ellis, W., et al. (2009). A universal school-based program to prevent adolescent dating violence: A cluster randomized trial. *Archives of Pediatric and Adolescent Medicine, 163*, 693–699.
- Yu, M., & Stiffman, A. R. (2007). Culture and environment as predictors of alcohol abuse/dependence symptoms in American Indian youth. *Addictive Behaviors, 32*(10), 2253–2259.