



## ABSTRACT

This poster presents select findings from a study that examined the effects of bullying on the mental wellbeing of First Nations, Metis and Inuit (FNMI) youth, and aimed to identify potential protective factors that predicted more positive mental health outcomes for this population. Participants were self-identified FNMI students (n=105) participating in a longitudinal initiative that followed them through the transition from elementary to secondary school. Additionally, a subset of this cohort (n=18) participated in two years of a culturally-relevant, school-based mentoring program, designed to improve healthy relationship skills, bolster cultural connectedness and promote positive mental health. Findings indicated that greater cumulative bullying victimization was associated with more negative mental health among youth in this sample. Further, despite no apparent moderating effect, all three of the identified protective factors predicted mental wellbeing independent of bullying victimization. Results support a tiered approach to intervention, confirming the merit of culturally relevant, school-based programming that incorporates these factors, as well as suggesting the need for targeted intervention to promote resilience and wellbeing, and mitigate risk among FNMI youth experiencing bullying.

## BACKGROUND

Bullying is a significant problem facing youth in Canada. The most recent Health Behaviour in School Children (HBSC) study conducted by the World Health Organization (WHO) reported that the majority of adolescents in Canada (75%) have experienced bullying in some form (Freeman et al., 2011). Although a substantial body of existing research demonstrates the negative effects of bullying on mental health, a significant gap in the literature exists in examining the impact of bullying on the mental health and wellbeing of FNMI adolescents. In one of few studies conducted in this area, Lemstra et al. (2011) examined bullying prevalence among on-reserve First Nations youth in Saskatchewan, finding higher rates of bullying than the national average, and that victims of bullying were twice as likely to suffer from depressed mood as compared to those who were not bullied. This is particularly concerning, as FNMI youth are at disproportionate risk for a myriad of negative outcomes, due in large part to the enduring impact of aggressive colonization and assimilation efforts that have resulted in the endemic disadvantage and marginalization of Indigenous peoples in Canada. Despite this gap, significant empirical investigation has identified potential protective factors that promote positive outcomes with Indigenous youth:

- School connectedness:** Although the relationship between school success in a Western context and cultural identity for Indigenous students is complex, school connectedness is strengthened through social support from teachers and peers, culturally sensitive and inclusive programming in the school setting and is associated with reductions in risk behaviours, increases in school success, and more positive mental health (Crooks et al., 2015).
- Cultural connectedness:** Promotion and engagement in traditional culture (i.e., increasing knowledge, strengthening cultural identity, engaging in traditional practices, etc.) has been identified as an important protective factor in reducing negative mental health outcomes among Indigenous adolescents (Lafromboise, Hoyt, & Whitbeck, 2008).
- Peer connectedness:** Social support from peers, friends and positive role models have also been identified as factors promoting positive outcomes and resilience among Indigenous youth (Stumblingbear-Riddle & Romans, 2012).

## RESEARCH QUESTIONS

- 1) What is the relationship between bullying victimization and the mental health and wellbeing of FNMI youth?
- 2) Do potential protective factors (in this case school, cultural and peer connectedness) predict more positive outcomes for these youth?

## METHOD

### Participants:

- 105 students in a large school board in Southwestern Ontario
- 50.4% female
- Age range was 11-14 years ( $M = 12.62$ ,  $SD = 0.57$ ) at Wave 1
- 38% of participants in Grade 7, 62% in Grade 8 at Wave 1
- 90.6% self-identified as having First Nations heritage, 2.9% identified as Métis, 1.4% identified as having Inuit heritage

### Procedure:

- Participants were recruited at Wave 1 when information sheets and passive parental consent forms were sent home to the parents/guardians of students in grades 7 and 8 who had self-identified as FNMI in accordance with the school board's Self-Identification for Aboriginal Students Policy. Schools were also encouraged to include Indigenous students who had not completed the self-identification process, but who either lived on a First Nation reserve or actively participated in Indigenous programming and cultural events.
- Data collection occurred at 3 Waves annually, and involved students responding to a paper and pencil self-report questionnaire during a 40-minute period outside of class time under the direction of research staff, that asked about students' home, community and school life, their relationships within these realms, and their cultural participation, as well as experiences with bullying, substance use, stress levels and mental health.

### Mentoring Participation:

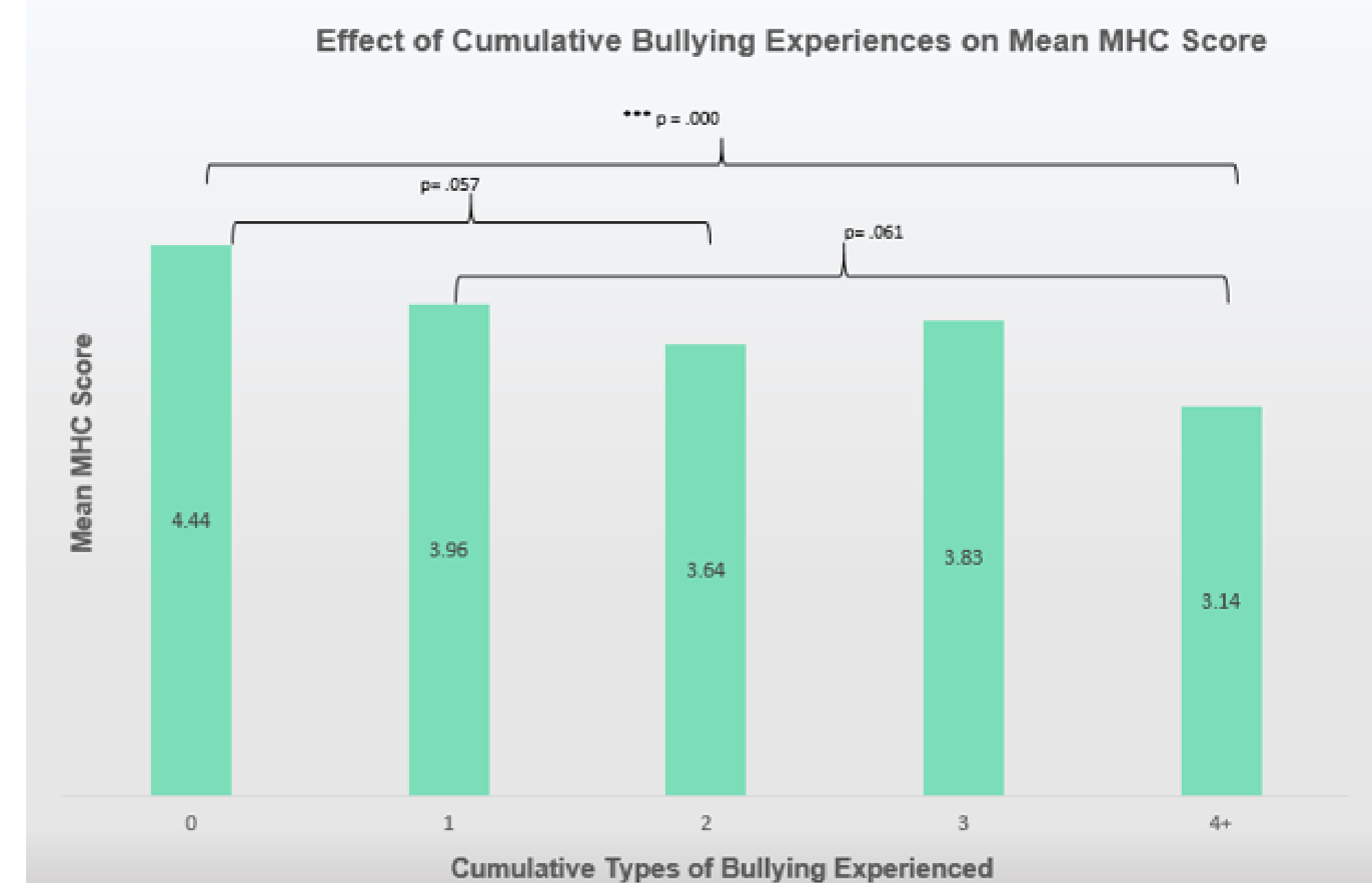
- 18 participants in this sample were involved in two consecutive years of a school-based, culturally relevant mentoring program. This program was designed to facilitate healthy relationship skills, improve mental wellbeing and foster cultural connectedness, and incorporated all of the protective factors investigated in this study. As such, analyses were conducted to ascertain the effect of cultural participation on mental health outcomes for students who experience bullying.

## FINDINGS

### Research Question #1

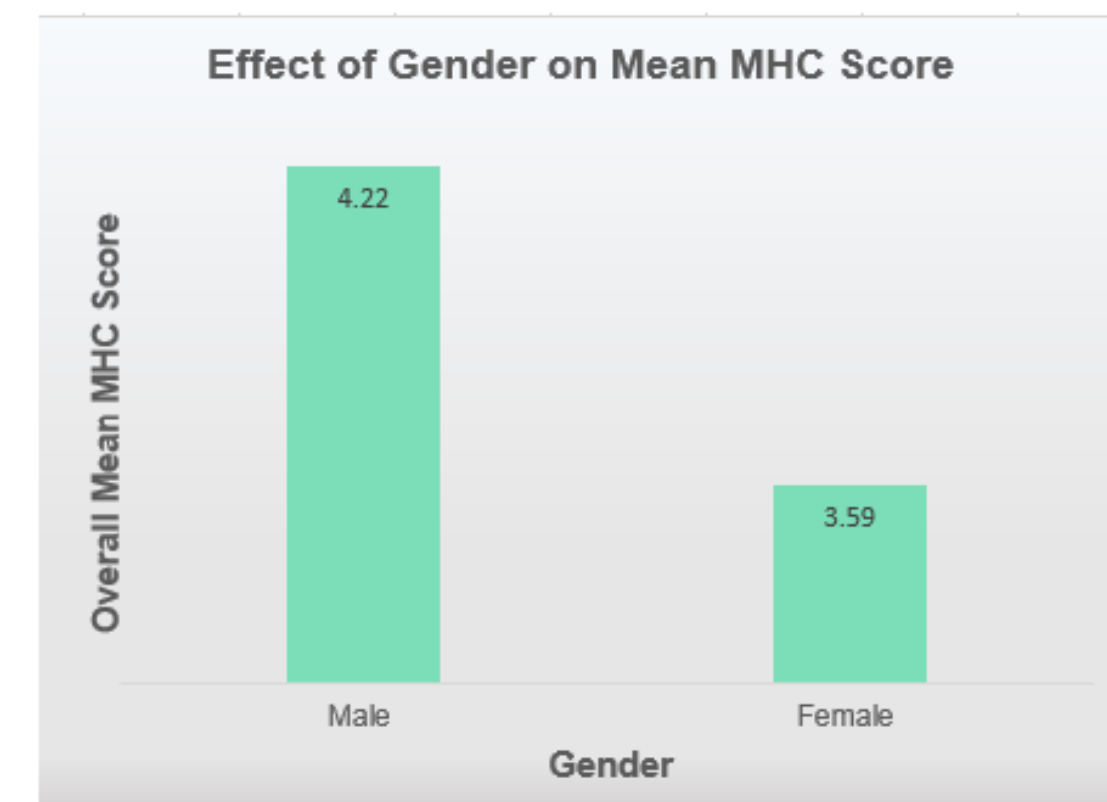
To investigate the effect of bullying victimization experiences on participants' mental health, a two-way, between-subjects ANOVA was conducted, which identified main effects for both bullying and gender. Post-hoc comparisons using the Bonferroni test indicated that participants who reported a greater number of cumulative bullying victimization experiences had lower reported mental health. In fact, the most significant effect was found for students who reported the greatest number of cumulative bullying victimization (4+ types); these students had the lowest overall scores on mental wellness. Overall, boys reported better mental health compared to girls.

Figure 1. Effect of Cumulative Bullying Experiences on Mean MHC Score.



Note. Statistical significance: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Figure 2. Effect of Gender on Mean MHC Score.



### Research Question #2

Table 1. Hierarchical Linear Regression Model for Gender, Cumulative Bullying Experiences and Protective Factors

	School Connectedness			Cultural Connectedness			Peer Connectedness		
	$\beta$	t	95% Confidence Interval Lower Upper	$\beta$	t	95% Confidence Interval Lower Upper	$\beta$	t	95% Confidence Interval Lower Upper
<b>Step 1</b>									
Gender									
R <sup>2</sup> Change	.39			.39			.09		
F Change	10.17			10.17			10.17		
<b>Step 2</b>									
Gender									
R <sup>2</sup> Change	.15			.15			.15		
F Change	5.14			5.14			5.14		
<b>Step 3</b>									
Gender									
R <sup>2</sup> Change	.05			.05			.04		
F Change	1.66			1.66			1.66		
<b>Step 4</b>									
Gender									
R <sup>2</sup> Change	.01			.01			.01		
F Change	.49			.49			.49		
<b>Cumulative Bullying Experiences</b>									
0 vs 1 Type	-.18	-1.89	-.98	-.03	-.18	-1.89	-.98	-.03	-.18
0 vs 2 Types	-.34	-2.45*	-1.26	-.13	-.34	-2.45*	-1.26	-.13	-.34
0 vs 3 Types	-.19	-2.01*	-1.13	-.01	-.19	-2.01*	-1.13	-.01	-.19
0 vs 4+ Types	-.44	-4.40***	-1.67	-.63	-.44	-4.40***	-1.67	-.63	-.44
<b>Protective Factor</b>									
1 Type Bullying vs Protective Factor	.02	.15	-.77	.88	-.11	-.93	-.15	.56	1.11
2 Types Bullying vs Protective Factor	.09	.91	-.58	1.58	-.07	-.61	-1.72	.91	.05
3 Types Bullying vs Protective Factor	-.08	-.70	-1.31	.63	.03	-.30	-1.42	1.94	-.15
4 Types Bullying vs Protective Factor	.03	.27	-.68	.89	-.15	-1.00	-.136	.45	.03
R <sup>2</sup> Change	.01			.01			.01		
F Change	.49			.49			.49		

Note. Statistical significance: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Three hierarchical linear regressions were conducted, for each protective factor and gender. Although no moderating effects were observed, significant main effects were found for both gender and all protective factors, indicating that each protective factor positively predicted increased mental wellbeing

Table 2. Hierarchical Linear Regression Model for Mentoring Participation, Gender and Cumulative Bullying Experiences

	$\beta$	t	95% Confidence Interval	
			Lower Bound	Upper Bound
<b>Step 1</b>				
Mentoring Participation	.24	2.51*	.14	1.19
<b>Step 2</b>				
Mentoring Participation	.24	2.71**	.18	1.17
Gender	-.32	-3.57***	-1.04	-.30
<b>Step 3</b>				
Mentoring Participation	-.20	-2.36*	-.09	1.02
Gender	-.23	-2.68**	-.84	-.13
<b>Cumulative Bullying Experiences</b>				
0 vs 1 Type of Bullying	-.18	-1.90	-.96	.02
0 vs 2 Types of Bullying	-.23	-2.42*	-1.23	-.12
0 vs 3 Types of Bullying	-.20	-2.13*	-1.14	-.04
0 vs 4 Types of Bullying	-.41	-4.28***	-1.62	-.60

Note. Statistical significance: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

The main effect of mentoring participation was also investigated using hierarchical linear regression. A significant main effect was observed, indicating that mentoring participation was a positive predictor of increased mental wellbeing.

## IMPLICATIONS

Findings from the present study suggest important implications for both research and practice:

- Participation in culturally-relevant programming in schools is associated with increased mental wellbeing among FNMI adolescents.** The mentoring program described in this study aimed to build healthy relationship skills, bolster positive mental health and strengthen cultural connectedness among FNMI youth. Importantly, this program incorporated all three types of connectedness found to positively predict mental wellbeing in this study. These findings add to the growing body of evidence supporting the benefits of culturally relevant programming for FNMI youth in the school setting (e.g. Crooks et al., 2015)
- Protective factors predicted increased mental wellbeing independent of cumulative bullying victimization experiences.** There are two implications of this finding.
  - First, identifying general protective factors in the relationship between bullying and mental health for FNMI youth (in this case school, cultural and peer connectedness) is important, due to the negative outcomes related to bullying victimization, and the high risk position of FNMI adolescents. Knowledge of these protective factors is essential to incorporate them into future prevention and intervention efforts.
  - Second, the protective factors identified by the present study had no greater impact for youth who experienced more types of bullying victimization, compared to those who experienced fewer (i.e., there was no significant interaction effect). These results suggest the need for a tiered approach that includes both universal prevention and targeted intervention as a potential means of promoting positive outcomes while mitigating risk for this population.

## FUTURE DIRECTIONS

Additional inquiry is needed to further clarify the relationship between bullying and mental health among FNMI youth. Future research should:

- Replicate the longitudinal design of this study with a larger and more diverse sample size.
- Examine bullying perpetration among FNMI adolescents. Although victimization was the focus of this research, further inquiry regarding the potentially differential impacts of perpetration is required to understand this aspect of bullying involvement.
- Utilize a qualitative or mixed methods design to gain a more holistic understanding of bullying experiences among FNMI youth.

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