Exploring the influence of bullying and self-harm on negative school experience among children and youth in Ontario

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LITERATURE REVIEW

Bullying is becoming increasingly prevalent in schools and has been extensively studied amongst the literature. Bullying is is often associated with a negative educational experience (Swearer et al., 2010) in that children being bullied are often more likely to be dissatisfied with school, have increased absenteeism and fewer peer relations. (Gastic, 2008; Havik et al., 2015). Children who are bullied are also more likely to engage in self-harming behaviours (Garisch & Wilson, 2010; Lereya et al., 2013). O'Connor et al. (2009) determined that boys who reported being bullied were twice as likely to engage in self-harming behaviours and victimized girls were three times more likely to engage in self-harm. Research suggests that bullying is likely to increase the individual's level of psychological distress and reduce emotion regulation which are significantly linked to self-harm (Claes et al., 2015).

Despite a significant amount of research suggesting that bullying is likely to lead to self-harming behaviours, it still remains unclear how self-harm interacts with bullying and educational experience. The current study seeks to examine whether self-harm is used as a coping strategy to mitigate the effects of bullying on educational experience.

ABSTRACT

Bullying is often associated with a negative educational experience (Swearer et al., 2010). However, the existing literature is still unclear regarding how engagement in self-harm interacts with bullying and educational experience. The current study seeks to examine if self-harm is used as a coping strategy to mitigate the effects of bullying on educational experience. Data was collected from 1358 children and youth, 4-18 years of age, receiving mental health services across Ontario, Canada using the interRAI Child and Youth Mental Health (ChYMH) Instrument. Multiple regression analysis was used to develop a model for predicting students' educational experience. Student age, experience of bullying, mood-related symptoms, and engagement in self-harm were significant predictors of self-reported school experience. The four factor model accounted for 15% of the variance in student educational experience, $F(5,1352)$ = 47.91, $p <.001$, R^2 = .15. Since self-harm and bullying were both found to be significant predictors but the model was a modest fit to the data, the role of these factors will be further investigated using mediational analyses. It is hypothesized that self-harm will be a significant mediator in the relationship between bullying and educational experience. Clinical implications include revealing self-harm as a coping mechanism that children who experience bullying may use to moderate the emotional effects of victimization. Teachers and clinicians should be made aware of the increased risk of bullying and self-harm in students with a perceived negative school experience and aid in the development of alternative positive coping strategies for students.

METHODS

Participants
Data was previously collected from 1357 children and youth in London, Ontario, Canada, using the interRAI Child and Youth Mental Health suite (ChYMH). Participant ages ranged from 4 – 18 years (M =11.20, SD =3.46) with 66% (n = 909) of the sample being male.

Variables
Educational experience. Higher scores represent an increased negative educational experience. There was a total of 10 items included on this scale (e.g., increase in absenteeism, disruptiveness at school, expressed intent to quit school, conflict with school staff, dissatisfaction with school, refusal to attend school, removal due to disruptive behaviour, school performance, school engagement, and social inclusion by peers) and possible scores ranged from 0 to 10.

Age. Participants age at time of assessment.

Sex. Male participants were scored as 1 and females as 2. One-third (33%, n = 448) were female.

Self-harm. The self-harm variable was constructed using three items that included both ideation and attempt (e.g., considered performing a self-injurious act, most recent self-injurious attempt, intent of self-injurious attempt was to kill self). Higher scores indicate those who report ideation and/or attempt more recently and/or more severely. Possible scores ranged from 0 to 11.

Bullying. Higher scores represent more recent experience of bullying as measured by a single item. Possible scored ranged from 0 to 5.

Mood. Sum of scores regarding 12 mental state indicators of mood-related symptoms (e.g., sad/pained expression, crying, decreased energy, negative statements, self-deprecation, expressions of guilt or shame, expressions of hopelessness, inflated self-worth, irritability, pressured speech or racing thoughts, labile affect, flat affect). Possible scores ranged from 0 to 48.

FINDINGS

A multiple regression was conducted to examine if student age, sex, self-harm, bullying and mood-related symptoms could predict student educational experience. Descriptive statistics and correlations for the variables can be found in Table 1 and 2, respectively. Using the enter method, it was found that the overall model was significant, R^2 = 0.154, F (5, 1351) = 49.255, $p < .001$. According to the adjusted R^2, this model is a modest fit of the data. Participants' predicted educational experience is equal to 3.266 – 1.248 (SEX) + .0851(SELF-HARM) + .185(BULLYING) + .058(MOOD), where sex is coded 1 = Male, 2 = Female and higher scores on self-harm, bullying, and mood indicates more problematic scores (frequency and/or severity). The analysis showed that participant age did not significantly predict educational experience. Regression coefficients and their associated betas can be found in Table 3.

The relationship between bullying and educational experience was mediated by self-harm. As Figure 1 illustrates, the unstandardized regression coefficient between bullying and self-harm was statistically significant, as was the unstandardized regression coefficient between self-harm and educational experience. We tested the significance of the indirect effect using bootstrapping procedures. Unstandardized indirect effects were computed for each of 5000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped unstandardized indirect effect was .054, and the 95% confidence interval ranged from .031, .087. Thus, the indirect effect was statistically significant however the total direct effect remained significant, indicating partial mediation.

Table 1
Descriptive statistics for variables

	n	M	SD
Educational Experience	1357	3.27	2.43
Age	1357	11.20	3.46
Sex	1357	--	--
Self-harm	1357	2.36	2.98
Bullying	1357	.92	1.35
Mood	1357	16.23	10.10

Table 2
Summary of correlations for subscales

	1	2	3	4	5
1. Educational Experience	--				
2. Age	.07**	--			
3. Self-harm	-.16**	.27**	--		
4. Bullying	.18**	.13**	.23**	--	
5. Mood	.28**	.05*	.26**	.24**	--

Table 3
Summary of multiple regression analysis for student educational experience

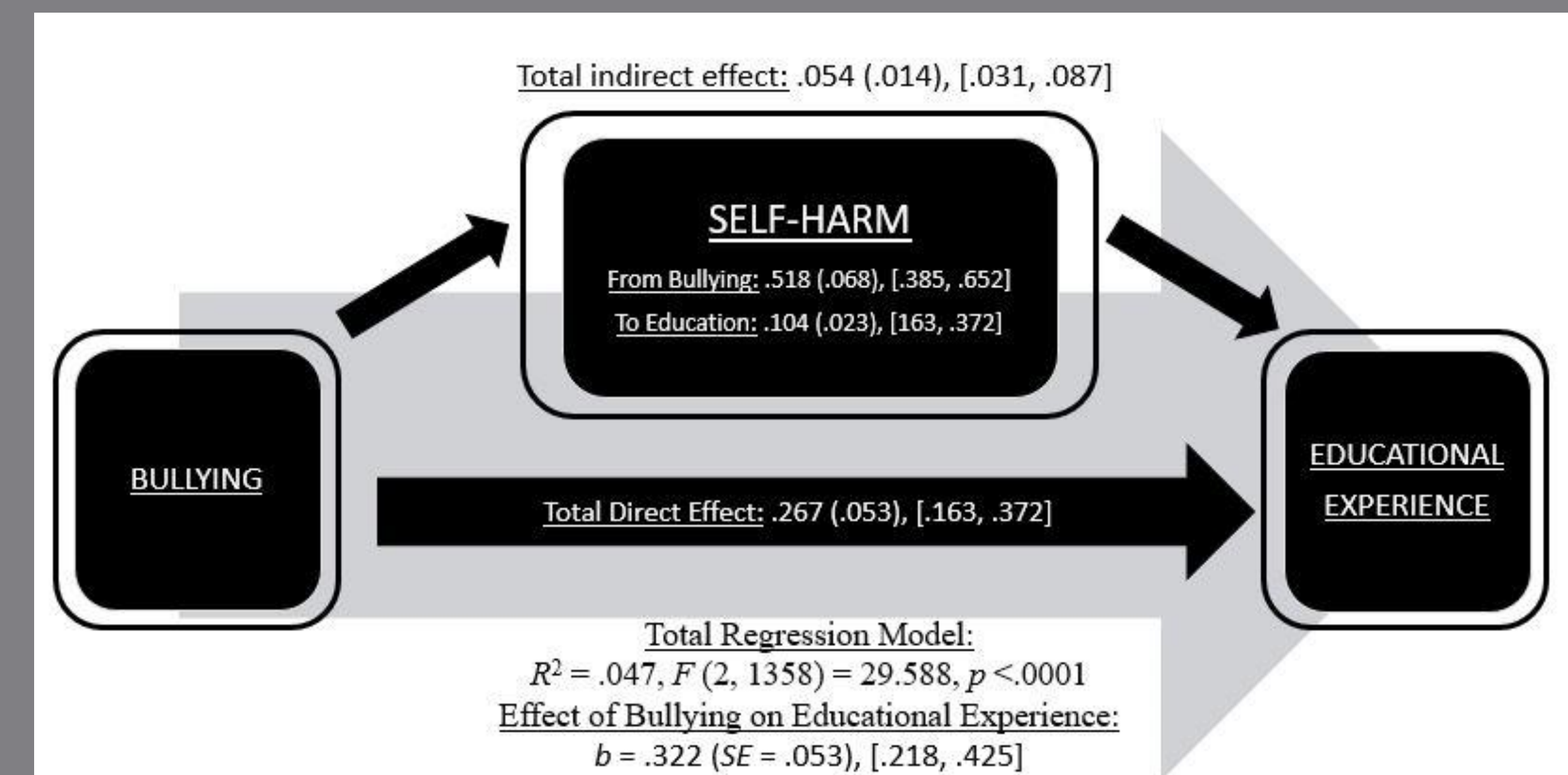| Predictor	B	SE(B)	β	t	Sig. (p)
Age	0.32	.02	.04	1.72	.09
Sex	-1.25	.13	-.24	-9.50	<.01
Self-harm	.08	.02	.10	3.81	<.01
Bullying	.18	.05	.10	3.89	<.01
Mood	.06	.01	.24	9.12	<.01

Figure 1. Unstandardized regression coefficients for the relationship between bullying and educational experience as mediated by self-harm. Reported coefficients are unstandardized and bootstrapping utilized 5000 iterations for bias-corrected confidence intervals.

IMPLICATIONS

Our results indicated that self-harm is a significant partial mediator in the relationship between bullying and educational experience. Many anti-bullying initiatives inform teachers how to recognize and address overt bullying behaviours; however, teachers should be aware that students who are victimized by bullying may experience profound distress and attempt to manage and conceal their difficulties by engaging in self-harm behaviours. By improving teachers' understanding of mental health issues and utilizing universal and targeted approaches, we can support students who are struggling with bullying, as well as promote protective factors and build resiliency.

Schools are an ideal setting to prevent bullying and promote healthy coping strategies because they provide access to all children. Universal school-based prevention programs focus on general vulnerabilities in children and youth, rather than specific problems and target all students; thus, reducing stigmatization and labelling students.

FUTURE DIRECTIONS

Recent research suggests that school connectedness promotes positive youth development. Specifically, the literature suggests that school connectedness is associated with reduced risk of both victimization and bullying behaviours, as well as decreased risk of self-harming behaviours (Kaminski, Puddy, Hall, Cashman, Crosby & Ortega, 2010; You, Furlong, Felix, Sharkey, Tanigawa, & Green, 2008). To better understand the protective potential of school connectedness, future investigations should expand the current mediation model and utilize a moderated mediation to examine the role of school connectedness.

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