



LITERATURE REVIEW

Nonsuicidal self-injury (NSSI), which refers to the direct and deliberate destruction or alternation of bodily tissue in the absence of lethal intent (e.g., self-cutting, burning, head-banging; DSM-5, American Psychiatric Association, 2013) is a widespread mental health concern. As many as 7-10% of elementary school children and as many as 17% of elementary school students have engaged in NSSI (Hankin & Abela, 2011; Muehlenkamp, Claes, Havertape, & Plener, 2012). Importantly, research has shown that students who engage in NSSI are increased risk for suicidal behavior (see Hamza, Stewart & Willoughby, 2012 for a review).

Despite the widespread prevalence of NSSI among school-aged youth, however, there is a paucity of research on the association between NSSI and academic outcomes among students. To our knowledge, only two studies have been previously conducted with highschool students, and findings on the link between NSSI and academic performance were mixed (Baetens, Claes, Grietens & Onghena, 2011; Taliaferro et al., 2012). To extend these findings, we examined the link between NSSI and school disruption among clinically referred youth in the present study. Importantly, recent research (Stewart, Klassen & Hamza, under review) suggests that school disruption (e.g., negative attitudes toward school), may serve as a precursor to poor academic performance, and thus may be an

important target for early intervention. Do standard targets for engaging in NSSI support higher levels of school disruption than students without a history of NSSI?

2) Is the link between NSSI and school disruption maintained even after taking into account other risk factors for school disruption (e.g., anxiety, hyperactivity/distractability, anhedonia, parenting stress)?

ABSTRACT

Nonsuicidal self-injury (NSSI), which refers to the direct and deliberate destruction of bodily tissue without lethal intent (e.g., self-cutting), is a pervasive mental health concern among elementary and secondary school youth. Despite the widespread prevalence of NSSI among school-aged youth, however, there is a paucity of research on the associations among NSSI and academic outcomes among students. To address this gap in the literature, we examined whether students who engaged in NSSI reported higher levels of school disruption than students without a history of NSSI. Moreover, we also examined whether the link between NSSI and school disruption was maintained, after taking into account other risk factors for school disruption (e.g., anxiety, hyperactivity/distractability, anhedonia, parenting stress). Participants included 791 youth (Mage = 13.04) referred to a mental health agency in Ontario, Canada. Chi-square analyses revealed that students who engaged in NSSI were more likely to experience high levels of school disruption than students who did not engage in NSSI. Moreover, binary logistic regression analyses demonstrated that the link between NSSI and school disruption was maintained, even after taking into account other risk factors for school disruption. Our findings suggest that NSSI may serve as one way to identify youth at risk for early school disruption, which may serve as a precursor to poor long-term academic outcomes, such as poor academic performance or school dropout.

METHODS

Participants:

Participants included 791 youth (Mage = 13.04) who completed the child and youth mental health assessment (ChYMH) as part of normal clinical practice across 10 sites providing mental health services to children and youth within the province of Ontario.

Measures:

The interRAI ChYMH includes over 400 items, and builds a comprehensive picture of the child/youth's strengths, needs, functioning and areas of risk to inform care planning for clients with mental health needs. The interRAI ChYMH assessment is based on a semi-structured interview format, and clinicians complete the instrument using all sources of information, including direct contact with the family and their child or youth, as well as other service providers and records (e.g., teachers, clinical charts and observations). The following scales from the ChY-MH were used in the present study:

- Severity of Self-Harm Scale (2 items assessing intentional harm without suicidal intent)
- Anxiety Scale (7 items assessing anxious complaints, unrealistic fears, etc.)
- Hyperactivity/Distractability Scale (4 items accessing attention, distraction, etc.)
- Anhedonia Scale (4 items assessing loss of interest in social activities and withdrawal)
- Parenting Stress Scale (6 items assessing communication, limit-setting, etc.)
- Risk of School Disruption (7 items assessing attitudes/behaviors toward school)

Procedure:

Data was collected by trained assessors at time of the child/youth's intake into clinical care at one of the 10 mental health service providers in Ontario, Canada. Each assessor involved in the study has at least two years of clinical experience with children and youth, and also completed a comprehensive training program on the administration of the interRAI ChYMH.

FINDINGS

Chi-Square analyses indicated that school-aged youth who engaged in NSSI were significantly more likely to experience high school disruption (i.e., a score of 4 or more) than youth without a history of NSSI, $\chi^2(1) = 6.269, p < 0.01$. Differences between the two groups on the individual school items are presented in Table 1. A binary logistic model was used to predict school disruption (low/high) from a set of predictors (NSSI, anxiety, hyperactivity/distractability, anhedonia, parenting stress). Table 1 presents the results for the model including the regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals.

School Disruption Items	No NSSI	NSSI
Increase in lateness or absenteeism	21% _a	29% _b
Poor productivity or disruptiveness at school	47% _a	50% _a
Expresses intent to quit school	14% _a	18% _a
Conflict with school staff	27% _a	31% _a
Strong, persistent dissatisfaction with school	27% _a	37% _b
Refuses to attend school	11% _a	17% _b
Removed due to disruptive behaviour	15% _a	15% _a

Table 2.

Predictor	B	Wald	Odds Ratio (ExpB)	95% CI	p Value
NSSI	.629	5.931	1.875	[1.13-3.11]	.015
Anxiety	.009	5.511	1.009	[1.00-1.01]	.019
Hyperactivity/Distractability	.076	7.137	1.079	[1.02-1.14]	.008
Anhedonia	.003	0.174	1.003	[1.00-1.02]	.677
Parenting Stress	.158	8.830	1.172	[1.06-1.30]	.003

IMPLICATIONS & FUTURE DIRECTIONS

In the present study, youth who engaged in NSSI experienced greater school disruption than youth without a history of NSSI, even after taking into account other risk factors for school disruption. It is also noteworthy that differences between the NSSI group and non-NSSI group seemed to stem from differences in youth's attitudes toward school (and a refusal to attend school) rather than youth's disruptive behavior in the classroom. Findings suggest that that school mental health practitioners should include an assessment of attitudes toward school and incorporate school-planning strategies into care for youth engaging in NSSI.

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