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Children's Bullying and Victimization on School Engagement: The Influence of Teacher

Support

By

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Honors Thesis

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Abstract

Bullying and peer victimization have become a popular variable in predicting success in school. Bullying and victimization have been related to school disengagement but teacher support lacks evidence on how it potentially moderates the effects school engagement. Self-report and teacher-report data was collected from two schools from the Brantford region from children in grades three through six ($N=47$). Results show that bullying was a negative predictor of school engagement, but victimization was not significantly correlated to school engagement. Teacher support was found to moderate the relationship between teacher reports of student's victimization and school engagement consistent with theories and the hypothesis. Identifying the importance of teacher support provides implications for professional development in helping victimized students. High reports of bullying and victimization were recorded and further discussed.

Children's Bullying and Victimization on School Engagement: The Influence of Teacher Support

The concept of school engagement has received an increasing amount of interest from researchers, schools and teachers due to its documented influence on academic achievement (Buhs, Ladd, & Herald, 2006; Zimmer-Gembeck, Chipuer, Hanisch, Creed, & McGregor, 2006). School engagement is a multifaceted construct used to define the degree to which students are behaviorally, emotionally and cognitively engaging within their school environment that may predict future academic success (Li, Lynch, Kalvin, Liu, & Lerner, 2011; Covell, 2010). Empirical research has explored how different factors contribute to student engagement. Peer social relationships at school have been shown to be particularly important because of how peer victimization can negatively impact emotional and cognitive student engagement and academic success (Buhs, et al., 2006; Li, et al., 2011). Student teacher relatedness is the basis for teacher social, emotional and physical support in which student's relationship with their teacher has shown to predict changes in levels of classroom engagement (Furrer & Skinner, 2003). Children's peer relationships and the student-teacher relationship are a fundamental aspect of a student's social development within their school environment. Previous research has demonstrated a correlation between peer bullying and victimization on teacher support but these concepts have developed along separate lines in regards to their relationship with school engagement (Hughes & Chen, 2011). Student-teacher relationships have demonstrated a greater influence on younger elementary students than high school students at combating the negative effects from victimization on elements of engagement (Zimmer-Gembeck, et. al., 2006; Hughes, & Chen, 2011). In this study, the goal is to identify if student-teacher support moderates the

negative effect peer victimization has on school engagement in elementary students from grades three to grade six.

Theoretical Background

Research on bullying, victimization and the influence teacher support can have has been guided by two main theories in understanding the cause for their findings and method construction (Furrer & Skinner, 2003; Covell, 2010; Birch & Ladd, 1997). Self-determination theory underlines the impact developing stable relationships with others can have on the individual's sense of security, support, and motivations (Ryan & Deci, 2000). This aspect of relatedness affects student's peer and teacher relationships that can either motivate them to engage or disengage in school (Zimmer-Gembeck, et al., 2006). Self-determination theory suggests that engagement will be enhanced if the need for relatedness is satisfied through teacher support (Furrer, & Skinner, 2003) and in support of the current study's hypothesis that teacher support will moderate the relationship between victimization and engagement. If positive teacher relationships are developed in school, children will be increase intrinsic motivation based off the innate need for self-direction thereby increasing engagement in all aspects of school (Ryan & Deci, 2000; Covell, 2010). The second guiding theory is attachment theory. Attachment theory has helped guide constructs for self-determination theory but aids in explaining how students perceive teacher support and how it facilitates students to engage. Attachment theory has been used to define aspects of the student-teacher relationship highlighting the importance of building a caring climate for students in order to have a secure space to explore and engage (Birch, & Ladd, 1997; Furrer, & Skinner, 2003). Attachment theory suggests that the teacher relationship is an effective way to promote school engagement in elementary students (Birch, & Ladd, 1997).

Both theories have aided in the development of the hypothesis and explanations for previous research findings.

School Engagement

School engagement encompasses a wide range of student attributes. Behavioral components of engagement include participating in school related tasks (i.e. completing homework, taking notes) or extracurricular activities (Archambault, Janosz, Fallu, & Pagani, 2009). Emotional affective components incorporate student attitudes, feelings, and interests towards school and whether or not they feel like they belong. Cognitive components incorporate the motivation to engage in school characterized by self-directedness and willingness to learn (Archambault, et. al., 2009; Covell, 2010). The present study evaluates aspects of all behavioural, cognitive and emotional aspects of school engagement collected from one survey concluding engagement as one continuous variable ranking from low (disengagement) to high. School engagement has been shown numerous times to be a stable predictor of academic success, which has fostered the development on new research and new ways to engage students (Buhs, et al., 2006; Zimmer-Gembeck, et. al., 2006). School engagement is the focus on the present study identifying its importance in student's achievement and future school success.

Disengagement in school can be characterized by behavioral misconduct, lack of interest and lack of emotional belonging to school. Student disengagement has been shown to predict high school dropout (Archambault, et. al., 2009), poor academic performance (Zimmer-Gembeck, et. al., 2006; Covell, 2010; Buhs, et al., 2006) and misconduct in the classroom (Covell, 2010). The concerns have introduced new research to identify sources of disengagement. Bullying and victimization have been identified as a contributing factor to students' school engagement and disengagement.

Bullying and Victimization Relation to School Engagement

Victimization is the experience of being target that is excluded from activities, ignored by peers, and or receives verbal or physical threats from other students (Buhs, et al., 2006; Schwartz, Gorman, Nakamoto, & Toblin, 2005). The development of victimization has been shown to have consequential impacts on students' academic functioning especially in elementary years where you can see the shift in victimization from physical forms to more relational (Schwartz, et. al., 2005). Peer victimization appears to be chronic and relatively stable throughout a students schooling, demonstrating deteriorating academic self-competence and school engagement across time (Buhs, 2005; Buhs, et al., 2006; Schwartz, et. al., 2005). Student's who identified as being exclude by peers reported being less behaviorally and emotionally engaged in school then students who identified having good peer support at school (Li, et. al., 2011). Children who experience chronic peer victimization respond by disengaging (participating less, less self-directed, fail to complete school tasks) in school due to the lack of support school provides (Buhs, 2005). In relation to attachment and self-determination theories victimized children fail to develop a sense of relatedness or attachment with peers leaving them vulnerable to withdraw from school due to lack of comfort and security. Positive peer relationships have been shown to predict high levels of school engagement and academic success (Li, et. al., 2011). Increasing students' engagement is a critical part to fostering a successful academic experience and research demonstrate that victimization can negatively predict school engagement.

Bullying and victimization have been found to be very prevalent in southern Ontario schools. One survey reported the prevalence of bullying and victimization among students in school, results report 40% of students reported being victimized by others and 31% reported

bullying others classmates (Vaillancourt, et al., 2010). The prevalence of bullying is also suspected to be higher due to children's fears of being punished or labeled a bully. Identifying such high rates of bullying and victimization the negative impacts it can have on student's school engagement becomes a pressing problem in schools today. Bullying has also been shown to negatively impact student's wellbeing (Flaspohler, Elfstrom, Vanderzee, & Sink, 2009) and school engagement (Li, et al., 2011). Involvement with bullying adversely effects students perceptions of teacher, parent and peer support within school in which students are more inclined to withdraw from school activities (Flaspohler, et al., 2009). Bullying in young elementary years is more commonly physical bullying which is less socially acceptable from peers, teachers and parents which may lead to students lower social ranking, disengaging in social school relations (Scheithauer, Hayer, Petermann, & Jugert, 2006). Involvement with bullying is hypothesized to be negatively predictive of student reports of school engagement.

Bullying, Victimization and Teacher Support

Bullying and victimization and teacher relationships are both factors on a student's perception of their school environment. Both peer and teacher relationships contribute to the development of a positive social functioning but development can shift if negative relationships between peers arise in forms of physical, relational and verbal bullying and victimization (Hughes, & Chen, 2011). Despite self-determination and attachment theories suggesting teacher and peer interactions influence each other research has grown into two separate streams lacking evidence for how these variable interact upon developing student engagement. Inconsistencies in the literature arise when assessing victimization and teacher relationships on the cognitive and motivational aspects of school engagement. Identifying a clear link between victimization and

teacher relationships with the student provides the present study the opportunity to fill in the gap by looking at both teacher and victimization effects on student engagement.

Victimization, Teacher Support and School Engagement

Student-teacher relationships are a major part of the education system. Teacher support is characterized by how much the student feels the teacher will help them, provide attention to and be relied upon (Konishi, Hymel, Zumbo, & Li, 2010). Building good rapport with students can increase motivation (Wentzel, 1998; Ryan, & Patrick, 2001), provide a sense of safety (Boulton, et. al., 2009), and improve classroom concentration (Boulton, et. al., 2012). Children's perception of having a positive teacher relationship has predicted changes in academic engagement and achievement across the school year (Furrer, & Skinner, 2003).

Students who have been victimized by peers have been shown to have lower concentration in the classroom and doubts about personal safety, where perceived teacher support has been shown to partially mediate this correlation to keep kids focused in school (Boulton, et. al., 2012). Although research has not primarily focused on teacher support and engagement many of the variables (i.e. concentration and motivation) are related or part of the behavioral and cognitive dimensions of student engagement where teacher relationship may evidently play a role. Students who perceive a lack of support from their teacher can negatively impact the emotional components of engagement leaving students feeling bored, unhappy and angry in school activities (Furrer, & Skinner, 2003). Identifying the link between students reports of victimization their perceive teacher support can have beneficial effects, buffering the negative impact victimization has shown to have on school engagement. The relationship between teacher support and peer victimization has not been studied encompassing all components of student

engagement, which the present study aims to explore. In attempt to identify if teacher support is a moderator to children's victimization and school engagement.

Control Variables

Empirical evidence has also looked at age and gender in peer victimization, student engagement and teacher relationships. Gender differences between bullying, victimization, school engagement and reports of teacher support have found inconstant results (Furrer, & Skinner, 2003; Konishi, et. al., 2010). Despite references to some gender differences within the field most research reports no significant change in strength between boys and girls, in which gender will be used as a control in the present study. Age has been a factor where teacher relationships are hypothesized to be a larger factor in primary grades shifting its weight to peer relationships in later middle school/ high school (Hughes & Chen, 2011). As children age, social peer interactions become increasingly important but evidence fails to look if children who are victimized still rely more on peers and focus less on teacher support. Do to the interest in the importance of teacher support having moderating effects on victimization and engagement the present study surveys primary school kids in which age factors into further supporting the hypothesis. Number of days absent has also shown have an impact on school engagement, indicating more absence leads students to becoming less engaged in school. Absenteeism has been shown to be an outcome of chronic victimization where avoidance of school is adaptive (Hutzell & Payne, 2012). Number of days absent will also be used as a control in the present study to ensure absences are not accounting for any statistical differences found.

Research Goals and Hypothesis

School engagement is a growing concept useful for predicting and fostering academic success. Attachment and Self-determination theorists suggest that the development of

relationships is a starting block for children to actively engage within their school environment (Ryan, & Deci, 2000). Literature illuminates some inconsistencies regarding the influence of peers versus teacher support, as studies focus on either factor rather than the interaction between factors. Peer victimization has been shown to have negative impacts on student engagement, when looked at independent from teacher support (Buhs, et al., 2006). However the interaction identified between peer and teacher relationships would suggest teachers should have an impact on student engagement and peer victimization. In order to understand the influence bullying and victimization have on student engagement both peer and teacher relationships need to be looked at congruently, assessing whether or not teacher support moderates this relationship.

It is hypothesized that reports of peer victimization and bullying will be negative predictors of student's school engagement. Identifying that children who are excluded, ignored, or harassed by peers or participate in those activities bullying their peers, they will be less behaviorally, emotionally and cognitively engaged in school. Teacher support is theorized to moderate this relationship between peer victimization and school engagement. In the case of individuals who are victimized by their peers, high levels of teacher support will buffer the negative effects and maintain engagement in school. Students and teachers in the Brantford region from grades two to five will be able to participate in the study by filling out short self-report questionnaires regarding peer victimization, teacher, support and engagement. A correlational analysis will be run testing for an interaction of teacher support and peer victimization on student engagement.

Methods

Participants

Data will be collected from participating grades three, four, five and six within two Brantford school classrooms. Student's age ranged from eight years old to twelve years old. A frequency analysis determined the sex and grade level of participants. The sample size consisted of 47 students, 20 boys and 26 girls with one unidentified. There are 8 (4 boys/4 girls) students in grade three (ages 8-9), 10 (5 boys/5 girls) students in grade four (ages 9-10), 13 (7 boys/ 6 girls) students in grade five (ages 10-11) and 15 students (4 boys/ 11 girls) in grade six (ages 11-12). Classroom teachers will be compensated with teaching release time from their school to complete a questionnaire for every student participating in the study. Children will receive a pizza party if all consent forms as an incentive but no classrooms received this prize. All student who brought back a consent form were compensated with a five dollar Tim Horton gift card, a King's notepad, and a pencil.

Measures

Bullying and peer victimization. Children will complete a three-item measure on verbal, physical, and relational forms of peer victimization (*i.e. how often do kids make fun of you*). Children will be responding to the frequency of these questions of never, once, a few times, and a lot of times (Schwartz, Gorman, Nakamoto, & Toblin, 2005).

Teacher reports. Teacher's will also be filling out the Teacher-Child Rating Scale (TCRS) to assess children's competencies and behaviours (Hightower, 1986). This scale will be used in conjunction with the bullying victimization scale to ensure accurate reports from student, as well as control for absences, gender and grade of student. Teachers will rate individual students on each item on a 5-point scale from one 'not true at all', through five 'very true'.

Student Engagement. Will be measured using the Young Student's Engagement in School Scale (Covell, 2010). Children respond to 28- item questionnaire that encompasses the

behavioural (e.g. *I try hard to do good work*), affective (e.g. *I really like my school* and cognitive (e.g. *I try to do good work*) dimensions of engagement within various contexts (in my school, in my class, my teacher, my classmates). Response options are: not true of me, not very true of me, sort of true of me, and very true of me (Covell, 2010). Three items will be reverse coded ('We tease or bully each other'; 'I find my school work boring'; 'We bother each other') so that higher scores indicate high levels of engagement and lower scores indicate low engagement. A sub-scale of this measure will be used to measure student's perceptions of teacher support. This sub-scale consists of five items with the same format as the rest of the survey. A reliability analysis using Cronbach's alpha was computed to examine the internal consistency of the scores on the two sub-scales of the Young Student's Engagement in School Scale. An alpha of .76 was obtained, indicating a moderate degree of internal consistency among the item scores. The internal consistency is moderately acceptable but may be lower due to a small sample size. Cronbach's alpha was also computed to determine the reliability of the teacher support sub-scale yielding an alpha of .80, indicating an acceptable internal reliability among the items scored.

Procedure

Brantford schools contacted King's University College indicating interest in participating in research. Ethics was submitted through Western's ethical review board as a smaller part in a larger study. Once approved from Western ethical review board Brantford classroom teachers were contacted and instructed by researchers to handout consent forms to all students. They were informed that students would receive a pizza party if all consent forms are returned and signed by their parents, regardless of agreement. Once consent forms have been collected, a group of researchers visited schools at a time that is convenient for teachers and the school. It takes approximately 30 minutes of class time for students to complete the survey. The

researchers (two per a classroom) introduced themselves, the survey and the general guidelines for ensuring privacy before administering the survey to the participants with informed consent. Each question was read aloud so that all students are able to follow, while the other researcher answers any questions individually, but students were able to work ahead if they chose. The students were be informed that they can drop out at any point or leave any of the questions blank if they do not feel comfortable answering. When all students have finished their survey they weree thanked for their participation, receive a small gift of a pencil, notepad and Tim Horton's gift card, student were reminded to not discuss the survey with other classmates for it is private and told to report any questions or concerns to their teacher. All surveys were collected and filed with a class list to ensure data can be imputed properly. Teachers also received compensation by their school in order to complete the TCRS. Teacher's are administered this survey on-line and may complete it and submitted it at a time designated by their school, time to complete varied upon how many students received consent.

Results

Descriptive/Preliminary Analysis

Frequency of bullying and victimization self-reports. Frequency analysis was run to determine the percent of student self-reports of bullying and victimization results are portrayed in Table 1. Bullying reports concluded 74.5% of students have indicated at least one form of bullying another kid within the past month, 55.3% reporting making fun of another kid, 51.1% report having pushed another student, and 38.3% have left another kid out on purpose.

Victimization self-report concluded that 89.4% of students have experienced at least one form of victimization within the past month, 74.5% report being made fun of, 66% report being pushed, and 66% report being left out of activities on purpose.

Correlations Among Variables

Correlations were computed among the variables of interest and can be found in Table 2. Results indicate that there were many variables that were positively and significantly correlated. The correlation between teacher reports of victimization and students self-report measure of victimization was not significantly correlated. School engagement was significantly negatively correlated with student's reports of bullying, such that bullying more frequently decreases school engagement. School engagement was not significantly correlated with student's reports of victimization not supporting our initial hypothesis.

School engagement yielded a positive significant correlation with teacher reports of academic achievement, such that higher reports of school engagement related to higher levels of academic achievement. Gender was found to be positively correlated with school engagement indicating girls score higher on engagement and gender was negatively correlated with bullying indicating boys are more likely to be bullies. No correlations were found between number of days absent and any of the variables so it was further removed from our analysis.

Analytic Plan

One multiple regression was conducted to determine whether bullying, teacher reports of victimization and student reports of victimization predicted school engagement. A second regression was conducted to determine if bullying, teacher and student reports of victimization predicted teacher support. For all regression analysis the predictor variables were entered in two blocks; (a) gender and grade, (b) student/teacher reports of victimization or bullying.

To test for moderation variables were centered and interaction terms are created between student victimization and teacher support and bullying and teacher support and teacher reports of victimization and teacher reports. Gender and grade interactions were also created between

Table 1
Frequencies of Bullying and Victimization Occurring in the Past Month

Behaviour	Percentage
Make fun of another kid	55%
Hit or push another kid	51%
Leave another kid out on purpose	38%
Other kids make fun of you	74%
Other kids hit or push you	66%
Other kids hurt your feelings by excluding you from fun activities	66%

Table 2
Correlations between Self-Report Variables and Teacher Report Variables

	1	2	3	4	5	6	7	8
1 School Engagement SR	-							
2 Victimization SR	-.26	-						
3 Bullying SR	-.53**	.34*	-					
4 Teacher Support SR	.70**	.02	-.36*	-				
5 Victimization TR	-.02	.29	-.16	.02	-			
6 Achievement TR	.31*	-.16	-.16	.17	.07	-		
7 Absent TR	.30	.06	.08	.26	.21	.02	-	
8 Gender	.37*	-.09	-.32*	.22	.24	.13	.02	-

Note: SR= Student Self Report, TR= Teacher Report, * $p < .05$, ** $p < .01$

bullying and victimization reports. Hierarchical regressions were conducted to determine if teacher support, gender and grade moderated the relationship between victimization and school engagement and the relationship between bullying and school engagement. Regressions for the predictor variables were entered in three blocks; (a) gender and grade, (b) student/teacher reports of victimization or bullying, (c) two-way interactions.

Hypothesis Testing

Bullying and victimization predicting school engagement. A regression was conducted to examine if bullying, teacher reported and students reported victimization predicted school engagement while controlling for gender and grade. Table 3 illustrates the five regressions and shows the beta's, standard error, t-scores and level of significance. Bullying was found to be a significant negative predictor of school engagement $F(5, 40) = 4.19, p = .004$, such that the increase of bullying and teacher reported victimization predicts student's disengagement, in support of our initial hypothesis. Bullying and control factors accounted for 26% of the variance explained student's ratings of school engagement. Student's reports and teacher reports of victimization were not significant predictors of school engagement failing to support our hypothesis.

Bullying and victimization predicting teacher support. A second multiple regression was conducted to examine if bullying, teacher and student reports of victimization predicted teacher support while controlling for gender and grade (see Table 3). Results indicate that bullying was a negative significant predictor of teacher support $F(5, 40) = 2.65, p = .037$, indicating that higher student reports of bullying predict student disengagement. Bullying accounted for 15.5% of variance explained in student's reports of teacher support. Teacher and student reports of victimization were found to have no significant impact on teacher support.

Table 3

Regression Analysis Predicting Main and Moderating Effects on School Engagement

Step and Variable	Beta	SE	t
Regression 1: Predicting School Engagement			
1. Grade	-.19	.07	-.28
Sex	.29	.16	1.88
2. Victimization SR	-.01	.09	-.14
3. Bullying SR	-.40	.13	-3.03*
4. Victimization TR	-.11	.11	-1.05
Regression 2: Predicting Teacher Support			
1. Grade	.14	.07	1.93
Sex	.09	.16	.55
2. Victimization SR	.09	.09	1.02
3. Bullying SR	-.38	.13	-2.85*
4. Victimization TR	-.11	.11	-1.01
Regression 3: Predicting Moderation of Teacher Support on Engagement			
1. Grade	-.12	.05	-2.14*
Sex	.25	.11	2.30
2. Victimization SR	-.06	.06	-.85
3. Bullying SR	-.17	.11	-1.57
4. Victimization TR	-.82	.08	-1.02
5. Teacher Support	.58	.14	4.10**
6. Teacher X BullySR	.05	.19	.24
7. Teacher X VicSR	-.03	.09	-.34
8. Teacher X VicT	.38	.18	2.18*
Regression 4: Predicting Moderation of Grade on Engagement			
1. Grade	.08	.07	1.07
Sex	.03	.15	.18
2. Victimization SR	.07	.08	.81
3. Bullying SR	-.33	.12	-2.73*
4. Victimization TR	-.14	.12	-1.17
5. Grade X VicSR	-.26	.09	-2.96*
6. Grade X BullySR	.29	.12	2.46*
7. Grade X VicTR	.22	.12	1.83
Regression 5: Predicting Moderation of Gender on Engagement			
1. Grade	.11	.07	1.54
Sex	.13	.15	.83
2. Victimization SR	.07	.09	.80
3. Bullying SR	-.38	.13	-2.85*
4. Victimization TR	-.21	.13	-1.65
5. Gender X VicSR	-.33	.17	-1.92
6. Gender X BullySR	.61	.27	2.27*
7. Gender X VicTR	.50	.28	1.78

Note. TR= Teacher Report, SR= Student Report, * $p < .05$, ** $p < .001$

Moderating effects of teacher support on engagement. All variables were centered and significant interactions were analyzed according to the guidelines outlined by Aiken and West (1991). Simple slopes were tested following the procedures outlined by Preacher, Curran and Bauer (2006). To decipher the overall pattern of each interaction, separate regression lines were computed and plotted for individuals one standard deviation above (+1 *SD*) and one standard deviation below (−1 *SD*) the mean of the predictor. Simple slope analyses tested whether the slopes representing each relationship were significantly different from 0 at high and low levels.

A third multiple regression was conducted to determine if teacher support moderated the relationship between bullying, teacher and student reports of victimization on student engagement. Regression 3 in Table 3 illustrates the betas, standard errors, t-score and level of significance for this moderating effect. This model was significant, $F(9, 36) = 9.58, p < .001$, and accounted for 63% of variance of school engagement. Results show that the interaction between teacher reported victimization and teacher support was a significant predictor of school engagement ($\beta = 0.38 (0.22), t = 2.17, p = .036$). This interaction was graphed and can be seen in Figure 1, indicating that teacher support moderates the effects of teacher reported victimization so that in high levels of teacher support students are more engaged than individuals with low teacher support in low victimization conditions. When victimization is high, having high teacher support maintains student engagement where low teacher support conditions engagement declines. This interaction provides support for our second hypothesis indicating that teacher support can combat the negative impact victimization can have of student's school engagement. Teacher support did not moderate the effects between self-reported victimization and bullying on school engagement.

Exploratory Analysis

Moderating effects of gender on engagement. After our regression analysis and correlation revealed significant relationships between gender and bullying and victimization on school engagement, interaction terms were created to test if gender had any moderating effects. Regressions for the predictor variables were entered in three blocks; (a) gender and grade, (b) student/teacher reports of victimization or bullying, (c) two-way interactions and can be found under regression 5 of Table 3. This model was significant $F(8, 37) = 2.77, p = .017$, and accounted for 24% of the variance in reports of school engagement. The interaction between gender and student reports of victimization was approaching significance, $(\beta = -0.33 (-0.30), t = -1.92, p = .062)$, in which interpretation of this interaction shows that girls are reporting higher levels of school engagement than boys with no significant interaction with high levels of victimization (Figure 2). An interaction between bullying and gender reached significance, $(\beta = .61 (.35), t = 2.27, p = .029)$, indicating that girls with low levels of bullying report higher levels of engagement than boys and no significant gender differences with high reports of bullying (Figure 3).

Moderating effects of grade on engagement. Grade interactions between bullying, teacher and student reports of victimization were also investigated where predictors were entered in three blocks; (a) gender and grade, (b) student/teacher reports of victimization or bullying, (c) two-way interactions that can be found under regression 4 of Table 3. This model was found significant $F(11, 34) = 3.54, p = .002$, and accounted for 38% of the variance in students reports of school engagement. A significant interaction between bullying and grade was found and can be seen in Figure 4, $(\beta = .29(.37), t = 2.46, p = .019)$ This interaction shows that only in lower grades are heavily impacted by high rates of bullying negatively impacting students school engagement, where this effect is not apparent in older grades. A significant interaction was found between

grade and student reports of victimization on engagement displayed in Figure 5, ($\beta = -.26$ (-.47), $t = -2.96$, $p = .006$). This interaction shows that lower grades with high reports of victimization actually increase school engagement compared to low victimization, but as grade increases this switches to high victimization negatively impacting school engagement. All interactions are speculated about in the discussion section.

Figure 1

Interaction Between Teacher Support and Teacher Reports of Victimization on Engagement

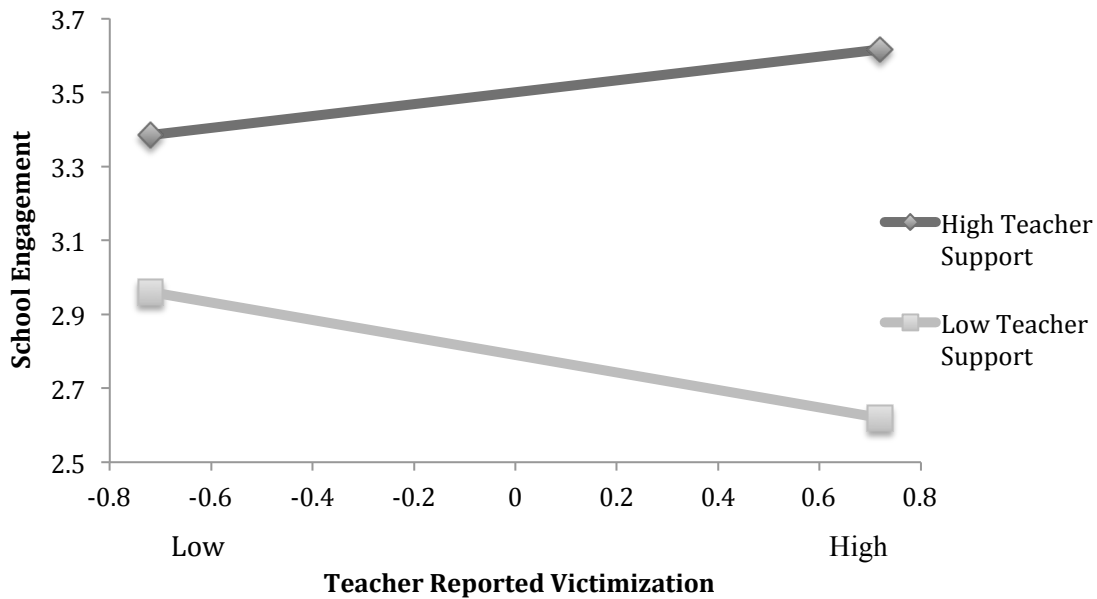


Figure 2

Interaction Between Student Reported Victimization and Gender on School Engagement

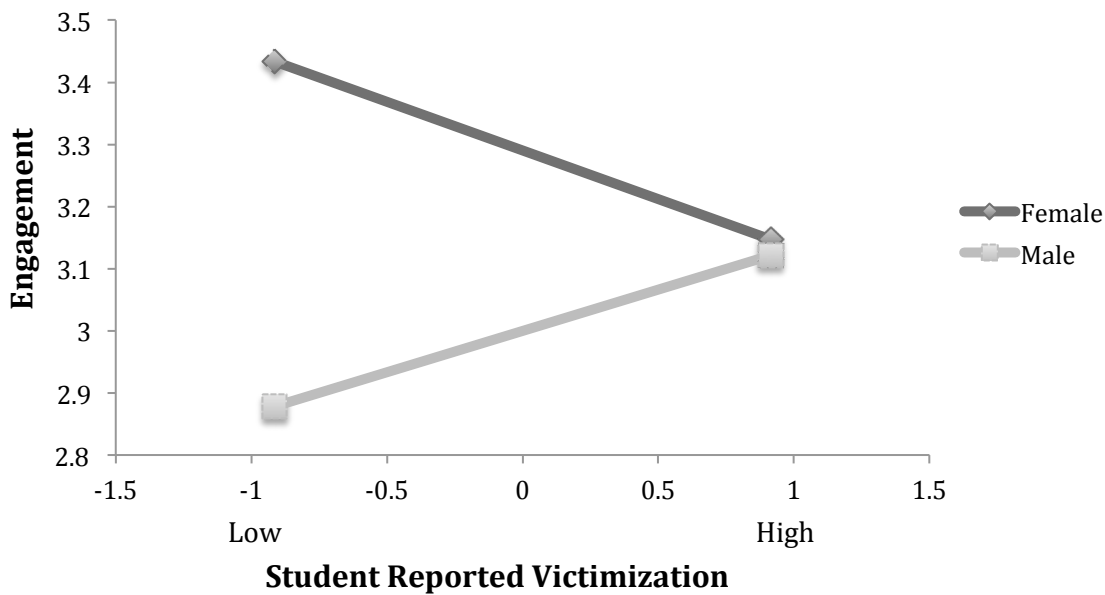


Figure 3

Interaction Between Gender and Levels of Bullying on School Engagement

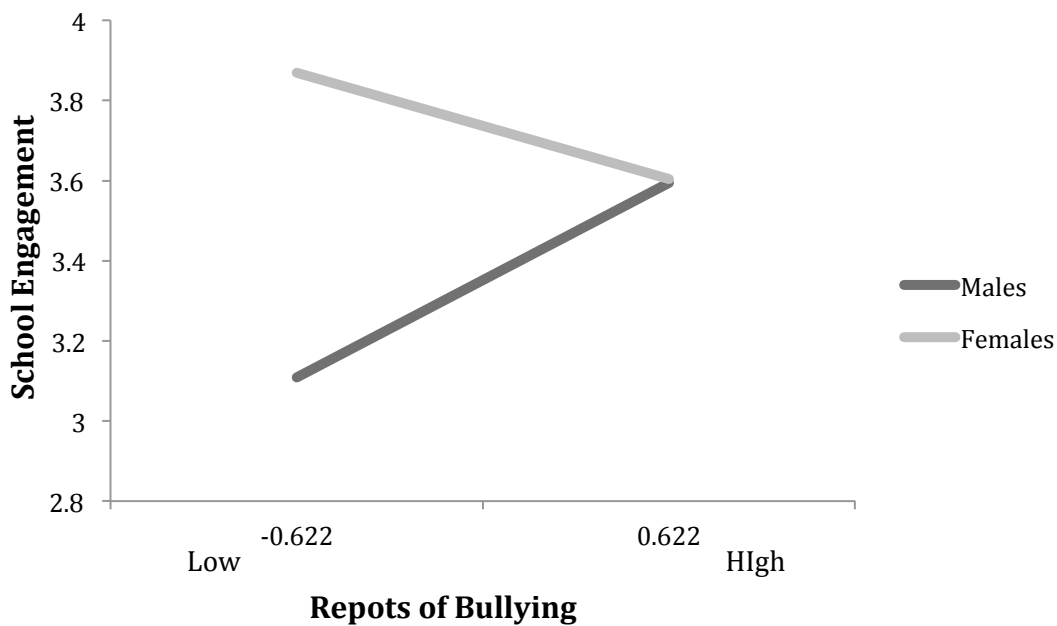


Figure 4

Interaction Between Grade and Bullying on School Engagement

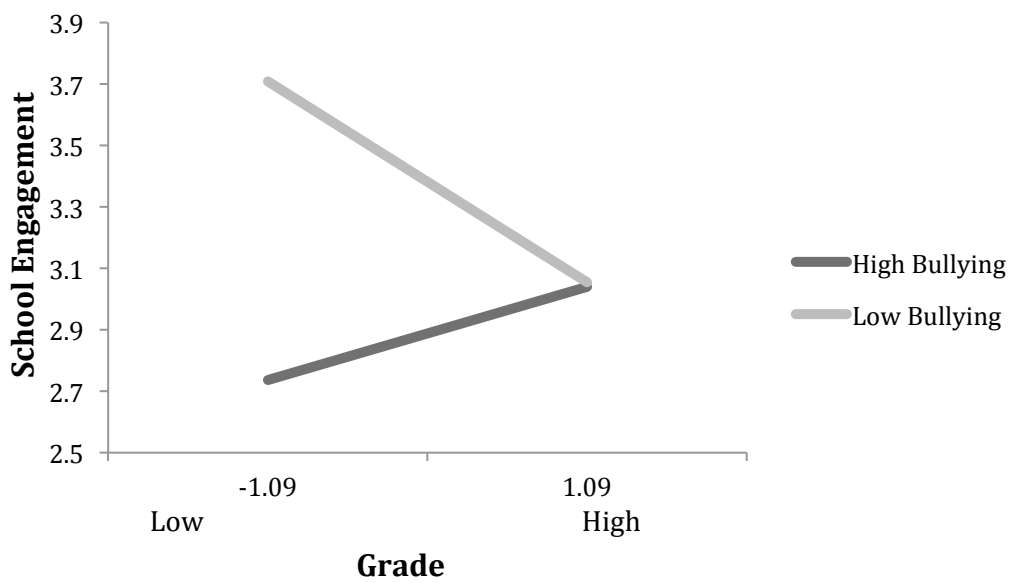
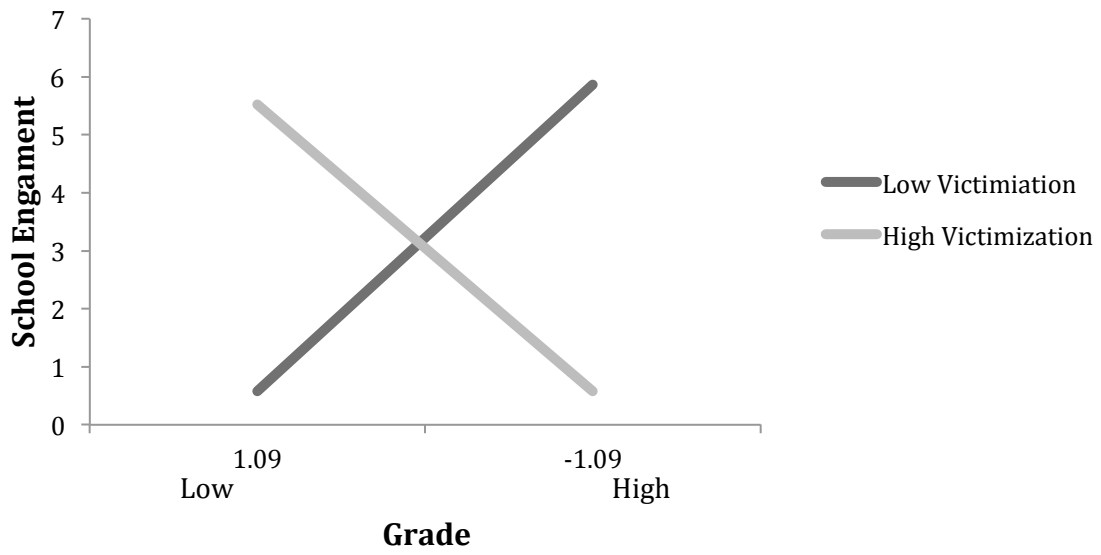


Figure 5

Interaction Between Grade and Student Reports of Victimization on School Engagement



Discussion

Main Findings

It was hypothesized that bullying and reports of victimization would be negatively correlated with children's school engagement. Our research findings partially supported our hypothesis, indicating that bullying was shown to have a significant correlation with school engagement, however teacher and students reports were not. Teacher support was hypothesized to moderate the relationship between victimization and school engagement. Results show partial support indicating teacher support moderated the relationship for teacher reported victimization but not for student reports. Student and teacher reports were not found to correlate indicating teacher and student's perceptions of victimization differ. Results also demonstrate the frequency of bullying and victimization within Brantford schools was relatively high.

Specific Findings and Explanations

The relationship between student and teacher reports. Results revealed that there was no correlation between teacher and student reports of victimization. Results are consistent with previous literature indicating teachers are unaware of victimization happening between their students, and/or that students are not confiding in teachers (Espelage, Polanin, & Low, 2014). This gap in student communication can underestimate teacher's evaluation of student victimization. Research has suggested that teachers are aware of bullying occurring in their school and classroom but not the full extent and frequency of its occurrence within the classroom (Espelage, Polanin, & Low, 2014). It has also been reported that students withhold reports of bullying and victimization from teachers if they believe little intervention will follow the report of victimization (Cortes, & Kochenderfer-Ladd, 2014).

Frequency of bullying and victimization. The present study discovered higher reports of bullying and victimization occurring within the two schools. Results indicate that the reported prevalence of bullying and victimization are 10-30% higher than other reports in southern Ontario (Vaillancourt, et al., 2010). Due to a small sample size, results may have over-inflated the estimation of bullying and victimization within the schools. Other variables such as the impact of: spilt grades have on bullying, class level of students, and school wealth, could also be factors of bullying and victimization frequency that were not accounted for in the present study. Victimization reports were higher than reports of bullying, suggesting that students may have reservations about admitting to bullying on self-report measures. Consistent with other findings, frequency of bullying is suspected to be underreported due to student's fears of being identified as a bully (Vaillancourt, et al., 2010).

Bullying, victimization predicting school engagement. Our results add to previous literature that conclude bullying is a negative predictor of school engagement and victimization was not found to be a significant predictor of school engagement. Bullying continues to demonstrate its negative influence on student's school experience, as other research might explain that bullies are more likely to engage in gang behaviours and other problem behaviours leaving less time for school activities (Holmes, & Brandenburg-Ayres, 1998; Ma, Phelps, Lerner, & Lerner, 2009). It could also indicate that those less engaged in schools become bullies cycling through patterns of disengagement.

Victimization was not correlated to school engagement proves inconsistent with our hypothesis and previous literature. It is speculated that victimization does have negative consequences to school engagement (Buhs, et al., 2006) but there are multiple protective factors that can mitigate this relationship such as teacher, peer and parent support (Konishi, et al., 2010).

Further research can benefit from identifying other potential factors that protect against student victimization.

Teacher support moderating the relationship between victimization and school engagement. Current results contribute to the small body of research identifying that teacher support moderates the effects of teacher's reports of victimization, increasing engagement when support is high but decreasing engagement when teacher support is low. Other research has found teacher support to moderate the relationship between victimization and academic achievement (Konishi, et. al., 2010) and quality of life (Flaspohler, et al., 2009). Identifying teacher support as a moderator supports our hypothesis and self-determination and attachment theories explaining such results.

Teacher support only moderated the relationship between teacher's reports of victimization and not student's reports. This finding can indicate that there can be other factors influencing student's reports of victimization and school engagement. Peer and parent relationships may also play a role in developing strong senses of relatedness within school contribute to the maintenance of a high level of school engagement (Flaspohler, et. al., 2010; Wentzel, 1998). Self-determination theory and attachment theory would apply to both these principles; that classroom teachers are not the sole providers in the development of a secure base at school (Zimmer-Gembeck, et. al., 2006). Overall, these findings suggest teacher support plays a major role in student's engagement and how it can support students who are victimized.

Influence of gender. Gender was found to have significant impact on school engagement and had a strong correlation with bullying. Gender was negatively correlated with bullying, indicating boys were more likely to be bullies. Previous research suggests that girls are less likely to bully peers and that it is less socially acceptable as there is a higher prevalence in boys

(Ma, et. al., 2009). Gender interactions were found between bullying and student reports of victimization that show females tend to be more engaged in school than boys. Although findings are inconsistent, it has been found that girls are more behaviorally and emotionally engaged in school than boys (Li, et. al., 2011; Furrer, & Skinner, 2003). Due to the small difference between high reports of bullying and victimization, gender differences in school engagement apply when children are not frequently engaged in bullying or victimization and gender has little influence on school engagement in high bullying and victimization scenarios.

Influence of grade. The results also suggest that grade level plays a significant role in how bullying and victimization influence student engagement. Grade ratings of school engagement alter as high rates of bullying and victimization fluctuate. Lower grades demonstrate a negative impact on bullying that can be attributed to the bullying patterns; that in lower grades physical bullying is more common which outcasts bullies and relational bullying is more common and more socially acceptable among peers in older grades (Scheithauer, et al., 2006). It is also found that children who experience chronic victimization and peer exclusion are more likely to experience negative effects on engagement in middle school (5th grade) than earlier grades (Buhs, et al., 2006). The negative impacts of victimization on school engagement appear to be minimal in grade three and increasing with age. Why victimization does not negatively impact younger students is a new finding inconsistent with literature and would require future research to draw conclusions. Although these findings are limited, future research can benefit from uncovering the trends bullying and victimization have on elementary students.

General Conclusions

Current study findings add to the growing literary body concerning the relationship between bullying victimization on school engagement. Teacher support has been identified as a

significant moderator in protecting students against the negative effects victimization can have on engagement. Increasing the relatedness and support between students and their classroom teachers can have a significant impact on maintaining school engagement in situations that might cause it to falter. Attachment and self-determination theories support this relationship, identifying teacher support as a main component in fostering a student's perceived safety and support allowing for students to engage in school. Inconsistencies in teacher and students reports of victimization may also be addressed in ensuring teachers are aware of the prevalence of bullying within their class so additional support may be provided to students in need.

Practical Implications

Identification of teacher support as a moderator to victimization and engagement can be used to implement professional development for teachers on how to build rapport with students. Teacher training programs and awareness campaigns can begin to develop ways in which to support students who experience high rates of victimization and feel comfortable providing students with their reassurance. Teacher and student reports of victimization could also use improvement concerning initiatives that would promote students seeking support from their teachers. It was found that students failed to report bullying cases to teachers when fear of punishment would be inflicted on the victim or bully and if parents would be notified and involved (Cortes, & Kochenderfer-Ladd, 2014). Utilizing resources of how to promote a supportive classroom environment can encourage students to utilize their teachers as resources.

The current sample surveyed students ranging from grades three through six. Recently, research found grades K through six to be effective developmental age for mitigating rates of bullying and victimization. Yeager, Fong, Lee, and Espelage (2015) identified that bullying intervention campaigns are ineffective in reducing frequency and impact of bullying of older

adolescents. The results demonstrated here that bullying hinders school engagement has the potential to change with effective bullying interventions. Research on elementary students allows for the potential to identify which strategies are effective in reducing student disengagement, results identify that teacher support as a moderator and with awareness and education teachers can foster engagement in their students.

Study Limitations

One limitation to the present study is its reliance on correlational data opposed to longitudinal data set. Although regression models indicate predictors of school engagement no causation can be concluded, in which longitudinal data would be better suited for tracking student's reports of bullying, victimization and engagement across a school year. Longitudinal data would also allow conclusions to be drawn about the persistence of bullying throughout the year.

Another limitation is the sample size of the data set. Gathering consent from parents of students was a difficult task in which a sample of only 47 was received. With further limitations such as non-response, the data set was impacted further in some of the variable factors were not accounted for. A relatively small sample size might have generated significant results and large effect sizes where in a larger sample the degree of patterns may be altered and found nonsignificant.

A third limitation was that more descriptive statistics were not acquired from teachers or students. Specific age, race, disability and income were not part of the survey material, which limits the conclusions that can be made and cannot identify other potential factors or confounds in our data set. Collecting more descriptive statistics about the sample could have proven useful in speculating the high prevalence of bullying and victimization found in schools.

Summery

The present study identified bullying as a negative predictor of school engagement demonstrating the negative impact bullying has on student's behavioural, emotional and cognitive school engagement. Victimization was not a predictor of school engagement contrasting pervious research that victimization does not always lead to student's disengagement. Teacher support was found to moderate the relationship between teacher reported victimization and school engagement which has been inventive in the field but follows trajectories similar to teacher support moderating the effects of victimization on safety (Boulton, et al., 2009), academic achievement (Kinoshi, et al., 2010), concentration (Boulton, et al., 2012), and self-efficacy (Hughes, & Chen, 2011). Identifying the effectiveness that teacher support has on grades three through six can have a significant impact on reducing the prevalence and consequences bullying and victimization has shown to have on school engagement.

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