International Journal of Bullying Prevention
https://doi.org/10.1007/s42380-023-00183-9

ORIGINAL ARTICLE

The Buffering Effect of Perceptions of Teacher and Student Defending on the Impact of Peer Victimization on Student Subjective Wellbeing

Diana J. Meter[1] · **Kevin J. Butler**[1] · **Tyler L. Renshaw**[1]

Accepted: 16 June 2023

Abstract
Peer victimization is associated with unwanted outcomes including less school belongingness and lower academic ability and school achievement. This study expanded on previous research by investigating how a perception of defending by peers and teachers interacted with peer victimization to predict four aspects of student subjective wellbeing: school connectedness, joy of learning, educational purpose, and academic efficacy. Participants were 1058 (488 girls, 524 boys, 20 who reported "other," and 26 who did not report gender) U.S. adolescent 6th–9th graders, many who received free/reduced-price lunch, often from urban schools. Their mean age was 12.96 years (SD = 1.20); most identified as Hispanic (62%), followed by White (13%), Black (11%), Multiracial (7%), Asian (6%), and less than 1% American Indian or Pacific Islander. Results showed that perceived defending from students can impact victimized adolescents' sense of connectedness to their schools and their joy of learning. It is important to understand how perceived defending impacts victims of peer victimization in order to evaluate intervention effectiveness.

Keywords Peer victimization · Defending · Student subjective wellbeing · Teachers

Introduction

Peer victimization is the receipt of aggressive acts from peers (Perry et al., 1988). About 10% of students report regular incidents of peer victimization (Glover et al., 2000; Rigby, 2000; Smith & Shu, 2000), with this experience being associated with a number of unwanted outcomes for adolescents, such as academic ability and achievement problems (Card et al., 2007; Li et al., 2020). A great deal of research attention has focused on *aggressors* or *bullies* and *victims*, with a large empirical literature investigating the prevalence, predictors, and consequences of these roles (e.g., Card et al., 2008; Cook et al., 2010; Hawker & Boulton, 2001; Reijntjes et al., 2010). However, student aggressors and victims alone are rarely the only individuals involved in episodes of peer victimization. Particularly in schools, other peers are present during most peer victimization episodes (Hawkins et al., 2001; Tapper & Boulton, 2005).

Peer victimization occurs within a larger context in which most peers fulfill different participant roles (Salmivalli et al., 1996). When peer victimization occurs at school, bystander peers may exacerbate or buffer the effect of victimization, depending on their reactions to the situation. Some students act as active or passive assistants and reinforcers to aggressors by joining in the victimization or by showing support for aggressive peers. Outsiders to peer victimization may be unaware of the situation or try to avoid becoming involved. An additional group of bystanders, *defenders*, support victims of peer victimization by getting help, showing support for the victim, or assertively trying to stop the victimization from continuing (Salmivalli et al., 1996). Researchers have consistently found children and adolescents who serve as defenders (Casper, 2013; Goossens et al., 2006; Sutton & Smith, 1999).

Peer Victimization and Student Wellbeing

Wellbeing is a multidimensional construct that may include physical, psychological, economic wellbeing, and other aspects of health (Renshaw & Bolognino, 2016). Previous research has linked peer victimization to different aspects of wellbeing, such as life satisfaction, emotional wellbeing,

✉ Diana J. Meter
diana.meter@usu.edu

[1] Utah State University, Logan, UT, USA

Published online: 05 July 2023

and health (Martin & Huebner, 2007; Alcantara et al., 2017; Ranta et al., 2009; Seon & Smith-Adcock, 2021). Although peer victimization is negatively associated with general wellbeing, recent literature has supported the use of domain-specific measures of subjective wellbeing (Renshaw et al., 2016), particularly when studying students in schools. Student subjective wellbeing, for example, is a better predictor of academic outcomes than general subjective wellbeing (Renshaw & Bolognino, 2016). Because a large portion of peer victimization takes place in schools (Turner et al., 2011), student subjective wellbeing is expected to be affected by victimization and defending processes in the school context. For example, results from nationally representative surveys of school-aged youth show that experiencing victimization negatively impacts student attitudes toward school and perceptions of their academic performance (Renshaw et al., 2016a, b).

Student subjective wellbeing is a multidimensional construct of positive psychological functioning at school comprised of four distinct dimensions: school connectedness, joy of learning, educational purpose, and academic efficacy (Renshaw et al., 2015). *School connectedness* refers to the feelings of acceptance and care from others and the degree to which one relates well to others at school. Ample research has indicated that the degree to which a student is connected to school is associated with overall wellbeing, academic performance, and victimization (Niehaus et al., 2012; Seon & Smith-Adcock, 2021). *Joy of learning* has also been found to be an indicator of physical and emotional wellbeing in adolescence (Peterson & Seligman, 2004) and is defined as the positive feelings and emotions associated with academic tasks. *Educational purpose* is the extent to which one views academic tasks as meaningful or important, and *academic efficacy* is the appraisal of academic behaviors as effectively meeting environmental demands. Both educational purpose and academic efficacy have been linked to outcomes such as psychological adjustment and school functioning (Arslan & Coşkun, 2020). While previous research suggests that experiencing peer victimization should be associated with decreased wellbeing and decreased student subjective wellbeing specifically, the association between peer victimization and specific aspects of student subjective wellbeing, and how they may be buffered by defending by peers, has not, to our knowledge, been investigated.

Defending and Supporting Victimized Peers

School-based intervention programs aimed at decreasing peer victimization through influencing peer bystander behavior have been successful in increasing hypothetical and actual defending (e.g., Whitaker et al., 2004). Classroom level of defending has been shown to be associated with peer victimization; the mean level of defending in the classroom was negatively associated with classroom peer victimization (Salmivalli et al., 2011). The risk of being victimized due to social anxiety or rejection was lower in classrooms where children defended compared to classrooms wherein children reinforced aggressive behavior (Kärnä et al., 2010). Although these few studies on the effects of defending are encouraging, research on the effects of defending is limited, and there are few studies that specifically investigate the effects of received defending on peer victimization. However, in one study that did investigate these associations, victims who received defending were less victimized than peers who went undefended (Sainio et al., 2011). Those who reported being defended by at least one peer reported higher self-esteem and were more accepted, less rejected, and more popular than undefended victims (Sainio et al., 2011). Other research has investigated the effect of perceived support, though not defending specifically, on victims of peer aggression. For example, Davidson and Demaray (2007) found that social support from classmates buffered the effect of peer victimization on internalizing symptoms for boys, but not the association between victimization and externalizing symptoms. In another study, peer support buffered the association between peer victimization and anxiety/depression (Holt & Espelage, 2007).

Another study showed that received peer prosocial behavior (e.g., receipt of help) moderated the relation between peer victimization and loneliness (Storch et al., 2003a). Specifically, the higher the amount of received peer prosocial behavior, the less loneliness was reported in association with relational aggression. However, the amount of variance explained by these models was limited, and even for those youth for whom the effect of victimization on loneliness was buffered, the amount of loneliness they reported was still substantial. This finding was replicated in a different study (Storch et al., 2003b), with received peer prosocial behavior moderating the association between relational peer victimization and loneliness. However, the buffering effect was not significant at the highest rates of relational peer victimization. Moreover, the association between relational peer victimization and depression was not buffered by received peer prosocial behavior, nor were any associations between overt victimization and adjustment (Storch et al., 2003b). Yet another study showed a similar buffering effect of received prosocial behavior on the association between relational peer victimization and loneliness; but the buffering effects did not hold for the association between relational peer victimization and anxiety or between overt peer victimization and anxiety or loneliness (Storch & Masia-Warner, 2004). Overall, previous research suggests that received prosocial behavior from peers, and perhaps defending specifically, may buffer some of the undesirable consequences of peer victimization.

The effects of teacher or staff defending (i.e., intervening) in peer victimization situations is also limited (Troop-Gordon, 2015); however, there is reason to believe teacher defending can buffer the effects of peer victimization. Broadly, supportive non-parental adults, such as teachers or mentors, are known to provide social support and buffer against risk among young people. Teachers who fill this role have been shown to support students' functioning in academic contexts (Sterrett et al., 2011). More specifically, teachers can positively impact victimized youth through a variety of capacities, including providing support, enforcing classroom rules, structuring the classroom's social ecology, and modeling norms and expectations for interactions (Troop-Gordon, 2015), the latter which may include defending victimized students. Although most teachers believe peer victimization is problematic and do intervene (Bradshaw et al., 2007), some perceive it to be normative and are therefore less likely to intervene (Hektner & Swenson, 2012; Kochenderfer-Ladd & Pelletier, 2008) because they think this could make the situation worse for the victim (Bradshaw et al., 2007). When teachers do intervene, particularly when they use supportive–cooperative intervention strategies (e.g., including all students in the class, cooperating with parents and other professionals, establishing actions at class and/or school level), they tend to be successful in reducing peer victimization (Wachs et al., 2019).

Relatedly, in a large study of over 4000 3rd–8th graders, high social support from teachers *and* peers buffered the effect of victimization on life satisfaction; however, teacher social support alone was not enough to buffer this effect (Flaspohler et al., 2009). In another study of 9th graders, teacher social support buffered the association between peer victimization and student perceptions of school safety (Coyle et al., 2022). Although these studies were not measuring defending or intervening specifically, their results suggest that adults in students' school environment can buffer the effect of peer victimization.

Current Study

There seems to be some benefit to receiving social support from peers and teachers/staff in that it may buffer associations between peer victimization and internalizing problems for some individuals. Investigating whether received defending specifically can buffer the effect of peer victimization on adjustment is important, especially in light of suggestions from theoretically guided and even some empirically tested bullying/victimization prevention programs (that show success in decreasing peer victimization) that students should defend their victimized peers (Polanin et al., 2012; U.S. Department of Health and Human Services, n.d.). Although students are encouraged to tell adults in their schools about peer victimization, not all do. Even if they do, there is little research on the potential buffering effects of defending from teachers on the relation between peer victimization and adjustment (Bauman et al., 2016). The current study built on findings from previous research by investigating how perceptions of received defending from students and teachers/staff interacted with students' reports of received peer victimization to predict four facets of student subjective wellbeing: school connectedness, joy of learning, educational purpose, and academic efficacy. It was hypothesized that perceived defending from students and teachers would buffer the associations between peer victimization and the four student outcomes. Although we expected received defending to serve as a buffer of the association between peer victimization and student subjective wellbeing, we did not have specific hypotheses about the strength of these associations. Rather, our research aims were more exploratory, as we were unaware of any empirical precedent or strong theory to guide more specific hypotheses.

Methods

Participants

In Spring 2021, data were collected by the Character Lab Research Network, an organization that collaborates with schools to collect data on behalf of researchers. The authors' institution IRB at Utah State University relied on a reliance agreement with Advarra, which approved the ethics of the current research and serves the Character Lab Research Network. All participants' parents or guardians provided informed consent for the child's participation. The participants attended one of 23 schools in the United States. Two hundred forty-two participants' school information was not available, but they all attended the same district. The number of participants coming from each school ranged from 1 to 242 ($M = 54.29$). Of the 1058 participants, there were 488 self-identified girls, 524 boys, 20 who reported "other," and 26 who chose not to report their gender. Race/ethnicity was reported by the participants' schools. Participants were mostly Hispanic (62%), followed by White (13%), Black (11%), Multiracial (7%), Asian (6%), and less than 1% American Indian or Pacific Islander. Of the participants, 27% were in 6th grade, 27% in 7th grade, 30% in 8th grade, and 15% in 9th grade; their mean age was 12.96 years (SD = 1.20). Due to the COVID-19 pandemic, some students attended school in-person ($n = 651$), while others attended online ($n = 407$).

Measures

Peer Victimization

The Revised Peer Experiences Questionnaire (RPEQ; Prinstein et al., 2001), with "teen" changed to "someone" in each item, was used to measure adolescents' self-reported

peer victimization via 9 items with response options scaled from 0 = *Never* to 4 = *A few times a week*. This comprehensive peer victimization measure items included questions about overt victimization (e.g., "Someone hit, kicked, or pushed me in a mean way") and relational peer victimization (e.g., "Someone left me out of what they were doing on purpose"). The internal consistency reliability of the RPEQ with the present sample was strong (α = 0.90).

Student Subjective Wellbeing

The Student Subjective Wellbeing Questionnaire (SSWQ) is a 16-item questionnaire assessing four facets of student wellbeing (Renshaw et al., 2015): Joy of learning (JL) (e.g., "I get excited about learning new things in class"), school connectedness (SC) (e.g., "I feel like I belong at my school"), educational purpose (EP) (e.g., "I feel like the things I do at my school are important"), and academic efficacy (AE) (e.g., "I am a successful student"). Each construct is measured with four items with response options scaled from 0 = *Almost never* to 3 = *Almost always*. Items were averaged within scales. There is strong evidence of the SSWQ's validity and reliability across multiple samples (Akmal et al., 2021; Arslan & Renshaw, 2018; Renshaw, 2015; Renshaw & Arslan, 2016). Internal consistency reliability estimates for the SSWQ subscales with the current sample were strong: JL $\alpha = 0.89$, SC $\alpha = 0.85$, EP $\alpha = 0.86$, AE $\alpha = 0.93$.

Defending

Four items each measured perceptions of defending from students and teachers (Williams & Guerra, 2007). Participants were given a situation (e.g., "Think about what most *students* in your *school* would do in the following situations since this past year. Could *most students in your school* be counted on to stop what is happening?") and then asked to respond on a scale with response options ranging from 0 = *Never* to 3 = *Always* regarding how often either students or teachers/staff would stop what is happening. The items tapped teasing, spreading rumors and lies, cyberaggression, and physical aggression. Internal consistency reliability estimates were strong for the scale measuring defending from students ($\alpha = 0.92$) and for defending from teachers/staff ($\alpha = 0.95$).

Covariates from Demographic Survey

Participants' attendance type was reported by their school and dummy coded *Online* = 1 or *In-person* = 0. Gender was self-reported by participants and dummy coded, with girls serving as the reference group and other groups coded as Boys, Other Gender, or No Answer.

Missing Data

Some self-report data on the variables included in the models were available from 1136 participants. Forty-seven participants had no outcome variable data (SSWQ), 19 were missing gender data and 8 were missing whether they were attending class in-person or online during the COVID-19 pandemic (with some overlap), 4 participants were missing peer victimization, 6 were missing defending from students, and 5 were missing defending from teachers (with some overlap). There were ultimately 1058 participants with about 7% missing data.

Plan of Analysis

Our first step was to test the amount of variance in each outcome explained by the school level to help us decide whether ordinary least squares (OLS) regression or multilevel modeling was the appropriate analysis to test our models. Intraclass correlations (ICCs) for all four outcome variables were less than 3% (0.01–0.02), suggesting only a very small percent of the variance in the SSWQ subscales is explained by the school level. Also, some schools only had 1 or a few participants. We therefore used OLS regression rather than multilevel regression for each of our models.

We began by exploring descriptive statistics. We calculated Pearson bivariate correlations between continuous variables and interpreted them using Cohen's (1988) benchmarks and their means and standard deviations. We mean-centered peer victimization and the two defending variables to assist in interpretation of the interaction effects. Next, using OLS regression, we tested the association between peer victimization, defending from students and teachers, and each student subjective wellbeing outcome. We then added an interaction between peer victimization and each form of defending. There were eight models in total, including a main effects and interaction effects model for each of the four student subjective wellbeing outcomes: joy of learning, school connectedness, academic efficacy, and educational purpose. We graphed significant interactions. Due to four regression analyses being conducted, a Bonferroni correction (0.05/4) was applied. Thus, only p-values < 0.0125 were considered statistically significant.

Results

Means, standard deviations, and correlations between continuous variables of interest are presented in Table 1. Correlations indicated peer victimization was positively associated with perceptions of defending from students to a moderate degree and from teachers to a small degree, suggesting that those who experience peer victimization report receiving

help from these individuals in their school environment. Peer victimization was negatively correlated to a small degree with school connectedness but was not significantly correlated with the other facets of student wellbeing (i.e., joy of learning, academic efficacy, and educational purpose). Perceptions of defending from students and teachers and the four facets of student subjective wellbeing were all positively, significantly correlated with each other to a small degree (see Table 1).

Results from the regression analyses are presented in Table 2. The variance inflation factors (VIFs) for predictors across all models were low (< 3), suggesting a low risk of multicollinearity affecting the model. In the main effects regression model 1, controlling for whether the participant attended class online or in person and gender, peer victimization was negatively associated with school connectedness ($\beta = -0.17$, $p < 0.001$). More perceived defending from students ($\beta = 0.15$, $p < 0.001$), but not teachers ($\beta = 0.09$, $p < 0.05$), was related to more school connectedness when considering our Bonferroni corrected p-value level for determining statistical significance ($p < 0.0125$). In the interaction model 2, there was evidence of perceived defending from students ($\beta = 0.15$, $p < 0.01$), but not teachers ($\beta = 0.08$, *ns*), buffering the effect of peer victimization on school connectedness (see Fig. 1a), with peer victimization effectually having no effect on school connectedness at the highest levels of defending from students. Figure 1a depicts the slope of victimization on school connectedness at the minimum and maximum levels of defending from student responses in the current data. Specifically, at one standard deviation below the mean ($B = -0.51$, $p < 0.001$), at the mean ($B = -0.37$, $p < 0.001$), and one standard deviation above the mean ($B = -0.23$, $p < 0.001$), there is a negative, statistically significant effect of peer victimization on school connectedness. Moreover, the magnitude of this effect is stronger at lower levels of defending by students. The centered range of values for defending by students was between − 0.67 and 2.33.

In the main effects model 3 predicting joy of learning, there was not a statistically significant association between peer victimization and joy of learning after controlling for school attendance type and gender ($\beta = -0.02$, *ns*). Both forms of defending were unrelated with joy of learning (see Table 2) for students ($\beta = 0.10$, $p < 0.05$) and for teachers ($\beta = 0.08$, $p < 0.05$). Although there was not a main effect of peer victimization on joy of learning, this effect was statistically significant in interaction model 4 ($\beta = -0.12$, $p < 0.01$), and again, defending from students ($\beta = 0.14$, $p < 0.01$), but not teachers ($\beta = 0.06$, *ns*), moderated this effect (see Fig. 1b; see Table 2). Figure 1b depicts the slope of victimization on joy of learning at the minimum and maximum levels of defending from student responses in the current data. When perceived defending from students was one standard deviation below the mean, the slope of victimization on joy of learning was negative ($B = -0.28$, $p < 0.001$). This was also the case when defending of students was at the mean ($B = -0.15$, $p < 0.001$). However, at one standard deviation above the mean, the slope of victimization on joy of learning was small and not significant ($B = -0.04$, *ns*).

After controlling for covariates, in main effects model 5, peer victimization was not related to academic efficacy ($\beta = -0.02$, *ns*). Furthermore, defending from students ($\beta = 0.08$, $p < 0.05$) was unrelated to academic efficacy, whereas defending from teachers ($\beta = 0.15$, $p < 0.001$) was related to academic efficacy (see Table 2). There were no statistically significant interactions between peer victimization and defending from students ($\beta = 0.01$, *ns*) or teachers ($\beta = 0.04$, *ns*) predicting academic efficacy in model 6 (see Table 2).

After controlling for covariates, in main effects model 7, perceptions of defending from teachers ($\beta = 0.12$, $p < 0.01$) but not students ($\beta = 0.05$, *ns*) was related to educational purpose (see Table 2). In interaction model 8, there were no statistically significant interaction effects for students ($\beta = 0.08$, *ns*) nor for teachers ($\beta = 0.05$, *ns*) predicting educational purpose (see Table 2). There is an additional model in the Supplemental Material that shows the effects of the predictors on a single outcome inclusive of the four student subjective wellbeing subscales averaged.

Table 1 Correlations between predictor and outcome variables of interest

	1	2	3	4	5	6	*M*	*SD*
1. Peer victimization	–						0.42	0.64
2. Defending from students	0.36***	–					0.67	0.80
3. Defending from teachers	0.16***	0.61***	–				1.09	1.10
4. School connectedness	− 0.11***	0.13***	0.16***	–			1.46	0.85
5. Joy of learning	0.01	0.13***	0.14***	0.65***	–		1.16	0.85
6. Academic efficacy	0.02	0.17***	0.22***	0.60***	0.60***	–	1.72	0.90
7. Educational purpose	− 0.02	0.11***	0.16***	0.67***	0.76***	0.67***	1.64	0.90

***$p < 0.001$

Table 2 Main and interaction effects of peer victimization and perceived defending on student subjective wellbeing

DV	Model 1: school connectedness		Model 2: school connectedness		Model 3: joy of learning		Model 4: joy of learning	
	Main effects		Interaction effects		Main effects		Interaction effects	
	B	SE	*B*	SE	*B*	SE	*B*	SE
Intercept	1.40***	0.04	1.36***	0.04	1.11***	0.04	1.07***	0.04
Online	0.09	0.05	0.12	0.05	0.06	0.05	0.09	0.05
Boys	0.07	0.05	0.04	0.05	0.07	0.05	0.05	0.05
Other gender	−0.31	0.19	−0.26	0.19	−0.46**	0.19	−0.41	0.19
No answer gender	−0.53**	0.17	−0.46**	0.17	−0.30	0.17	−0.24	0.17
PV	−0.22***	0.04	−0.37***	0.05	−0.03	0.04	−0.16**	0.05
DS	0.16***	0.04	0.15***	0.04	0.10	0.04	0.09	0.04
DT	0.07	0.03	0.09**	0.03	0.06	0.03	0.08**	0.03
PV X DS			0.17**	0.05			0.16**	0.06
PV X DT			0.10	0.05			0.08	0.05
	F (7, 1049) = 11.67		F (9, 1046) = 13.59		F (7, 1048) = 5.82		F (9, 1046) = 7.81	
	$p < 0.001$		$p < 0.001$		$p < 0.001$		$p < 0.001$	
	$R^2 = 0.07$		$R^2 = 0.10$		$R^2 = 0.04$		$R^2 = 0.06$	
	Adj $R^2 = 0.07$		Adj $R^2 = 0.10$		Adj $R^2 = 0.03$		Adj $R^2 = 0.05$	
DV	Model 5: academic efficacy		Model 6: academic efficacy		Model 7: educational purpose		Model 8: educational purpose	
	Main effects		Interaction effects		Main effects		Interaction effects	
	B	SE	*B*	SE	*B*	SE	*B*	SE
Intercept	1.67***	.05	1.66***	.05	1.62***	.05	1.59***	.05
Online	.28***	.06	.28***	.06	.20***	.06	.22***	.06
Boys	-0.08	.05	-0.08	.06	-0.08	.06	-0.10	.06
Other Gender	-.58**	.20	-.56**	.20	-.69***	.20	-.66***	.20
No Answer Gender	-0.21	.17	-0.2	.17	-0.31	.18	-0.27	.18
PV	-0.03	.05	-0.06	.05	0.07	.05	-.16**	.05
DS	0.09	.04	0.09	.04	0.06	.05	0.05	.05
DT	.12***	.03	.13***	.03	.09**	.03	.11***	.03
PV X DS			0.01	.06			0.10	.06
PV X DT			0.05	.05			0.07	.06
	F (7, 1049) = 14.16		F (9, 1047) = 11.67		F (7, 1049) = 8.99		F (9, 1047) = 8.41	
	$p < 0.001$		$p < 0.001$		$p < 0.001$		$p < 0.001$	
	$R^2 = 0.09$		$R^2 = 0.08$		$R^2 = 0.06$		$R^2 = 0.07$	
	Adj $R^2 = 0.08$		Adj $R^2 = .08$		Adj $R^2 = 0.05$		Adj $R^2 = 0.06$	

PV peer victimization, *DS* defending from students, *DT* defending from teachers

**$p < 0.01$; ***$p < 0.001$

Discussion

This study was one of few to investigate the impact of perceptions of defending on victimized adolescents and to specifically investigate the effect of perceptions of defending from student versus teachers and staff. This topic is timely given that bystanders to peer victimization are encouraged (reviewed in Polanin et al., 2012) to defend their victimized peers through assertively standing up to aggressors, getting help from trusted adults, or comforting a victim. The aim of the current study was to investigate what positive impact a perception of bystanders' intervention on behalf of their peers has on victims of peer victimization. We tested the moderating effect of perceived defending from students and teachers/staff on the association between victimization and four facets of student subjective wellbeing and found that defending from students specifically may buffer some ill effects of peer victimization on some facets of student

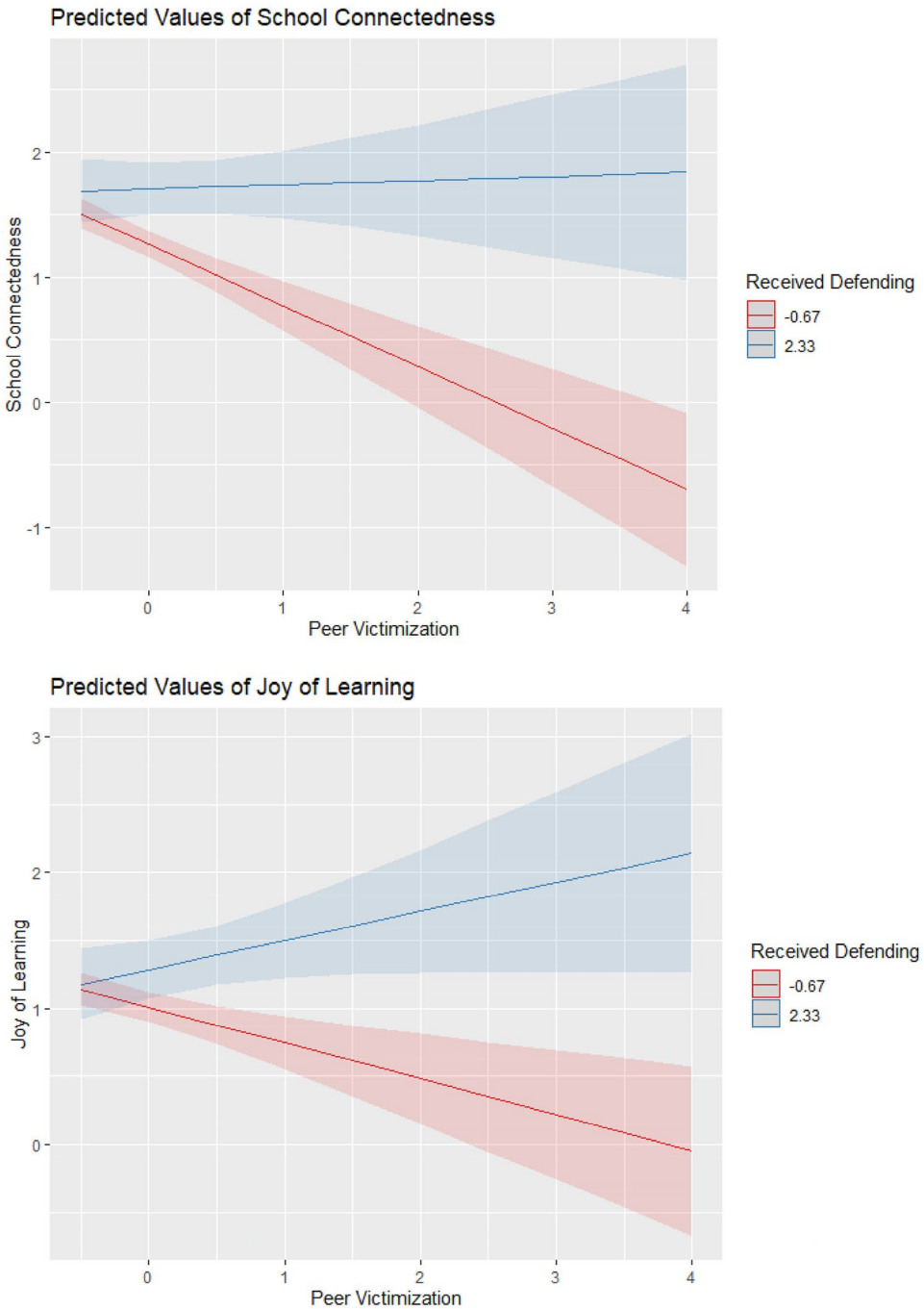

Fig. 1 Interaction between peer victimization and perceptions of received defending from peers predicting school connectedness and joy of learning. Graph represents predicted values across low and high values of each interaction term. − 0.67 and 2.33 are the range of values for received defending from peers

subjective wellbeing. More specifically, defending from students buffered the effects of peer victimization on school connectedness and joy of learning.

Why perceptions of defending from students specifically seems to buffer against the ill effects of peer victimization is an interesting question that deserves further research. Previous research has shown defended victims to not only be less rejected but also to be more accepted than undefended victims (Sainio et al., 2011). Defending by peers may signal to adolescents that youth will be accepted at least by some of their peers, leading them to feel more connected to their school. Similarly, when students feel that sense of belonging, it may allow them to not just complete their schoolwork, but to find joy in learning and education. Although teachers may intervene when instances of peer victimization occur, their intervention does not signal that same sense of acceptance by the peer ecology and may not help to fulfill the need to belong that defending from peers provides. We therefore suggest future research should investigate whether defending buffers the impact of peer victimization by increasing a sense of acceptance.

Furthermore, it was interesting that we found differences in the magnitude of the effect of perceptions of student and teacher defending on student subjective wellbeing before including the interaction terms—and these differences varied as a function of the particular facets of subjective wellbeing considered. Specifically, the effect of defending by students was stronger than that by teachers/staff for school connectedness, yet stronger for teachers/staff than students for academic efficacy and educational purpose. The effects of both types of defending were very similar for joy of learning. These findings suggest that, regardless of how much one is victimized, a perception of support from peers is related to youth feeling a connection to their schools, whereas a perception of support from adults in schools is related to more academic aspects of student subjective wellbeing. Moreover, although defending did not differentially buffer the effects of peer victimization on student subjective wellbeing for youth who reported more or less victimization and more or less defending, the main effects of perceptions of defending suggest that peers and teachers/staff can still have an important impact on students' subjective wellbeing through their demonstrations of support.

Interestingly, the only significant interaction effects in our models were based on perceptions of defending from students. Peer victimization is a peer-based problem, and in order to buffer the effects of peer victimization for those most victimized, it may take intervention from peers themselves. Defending from peers may signal to youth that even if they are victimized, they are not alone in their plight, which may explain the buffered association between peer victimization and school connectedness. Unlike the effects of peer victimization on the more academic wellbeing outcomes (i.e., academic efficacy and educational purpose), joy of learning, which taps into one's *enjoyment* of engaging in education tasks and being *happy* to be working and learning, was affected by defending. As stated by Salmivalli and colleagues (2011), even if children continue to be victimized, the victims are likely to feel differently if they know someone is on their side, rather than if they feel they are alone. We therefore suggest it would be interesting to test the moderating effect of defending from peers on associations between a variety of other academic (e.g., future education goals) and more peer-related (e.g., number of friendships) variables to see whether this pattern observed in our results generalizes. If this pattern held, it would suggest that bullying/victimization prevention programs that successfully motivate youth to defend their victimized peers may be successful in buffering some of the social consequences of peer victimization, but that different and additional supports may needed to ensure the academic success of victimized youth.

Strengths and Limitations

One strength of this work is attention to different aspects of student subjective wellbeing. Although an understanding of general subjective wellbeing can be useful in learning factors associated with this important student characteristic, by teasing apart predictors of individual dimensions of this construct, we can better understand how perceptions of defending and peer victimization may impact specific facets of student subjective wellbeing. Findings may therefore provide general empirical guidance that helps researchers and interventionists better understand how peer and teacher/staff intervention may support victimized youth at school. For instance, results from the present study suggest that interventions leveraging peers as defenders are likely to prove more useful for mitigating the negative effects of peer victimization than interventions leveraging teachers as defenders. Yet, results also suggest that perceptions of defending from peers is far from a panacea—buffering the social (school connectedness) and affective (joy of learning) facets of student subjective wellbeing but not necessarily the cognitive aspects (e.g., academic efficacy and educational purpose)—suggesting that interventions aiming to mitigate the negative impact of peer victimization should include more than just defending elements.

The results from the current study are limited given they cannot be used to infer causal direction due to the nature of the cross-sectional data. However, concurrent associations can help us understand how perceptions of defending impact victim's experiences within time. Because the effects between constructs could be reversed, the moderating effect could actually be representative of a buffer of the risk of victimization for those who have low school connectedness and joy of learning. Despite the importance of investigating these associations within a single time point, future longitudinal research could help explain how defending may impact victims' subjective wellbeing over time and which factors are antecedents to or consequences of defending.

It is also important to note that overall variance in outcomes explained by each regression model was relatively small, signaling that there are other predictors that may help explain student subjective wellbeing outcomes. Indeed, theoretical models of peer victimization situate individuals within multiple spheres of influence, including family, peers, school, community, and culture (Swearer & Espelage, 2011). We therefore recommend future research should incorporate more individual-level (e.g., social withdrawal and academic skills), peer-level (e.g., academic orientation of friends), and educational (e.g., school-level social norms for victimization and reporting to adults) predictors into models to help explain these outcomes.

Future Directions

In the current study, youth reported their perceptions of defending rather than actual received defending. Perceptions of defending are different from actual received defending. Although we would expect to find similar buffering effects in a study of received defending, it is important that the nature of the defending questionnaire items be considered when interpreting the results. Future research might test similar constructs as in the current study but investigate the actual buffering effect of personally received defending from students and teachers/staff.

Future Research

Future research should investigate whether defending buffers the impact of peer victimization by increasing a sense of acceptance. The current study showed that the association between peer victimization and school connectedness and joy of learning is buffered when participants perceive defending by peers. We suspect that this may be because perceiving defending by peers suggests that there are individuals around who will accept you and stand up for you, and this experience of social support may relate to greater acceptance. It is important to test this full path to better understand why perceiving defending, not actually receiving defending, is an effective buffer.

Implications for Practice

As researchers and interventionists encourage students to serve as helpful bystanders or defenders, it is important to understand the effectiveness of defending to gauge whether defending is worthwhile. Researching the effect of students' perceptions of defending is one step toward this goal. Although defending seems to show success in buffering some consequences of peer victimization, we should also be aware of where extra attention may be needed to additionally support victims even if they are being defending by peers. This study shows that peer defenders are able to buffer the effects of their peers' victimization, and likely victims' perceptions of their plights as well. This is a promising finding, as youth are encouraged to be more than a bystander and defend their peers who are victims of peer mistreatment. We suggest findings from our study provide further empirical support for continuing interventions and efforts to encourage peers and adults/staff to stand up for victimized students.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s42380-023-00183-9.

Acknowledgements We are grateful for the generosity of Character Lab Research Network staff, their partner schools, and participating students in making this project possible.

Author Contribution DJM developed research questions, conducted analyses, and wrote sections of the manuscript. KJB wrote sections of and edited the manuscript. TLR wrote sections of and edited the manuscript.

Data Availability The data presented in this study is not publicly available, but is available upon request to the first author.

Declarations

Conflict of Interest The authors declare no competing interests.

References

Akmal, S. Z., Kumalasari, D., & Grasiaswaty, N. (2021). Indonesian adaptation of the Revised College Student Subjective Wellbeing Questionnaire. *Humanitas Indonesian Psychological Journal, 18*(2), 75–86.

Alcantara, S. C., González-Carrasco, M., Montserrat, C., Viñas, F., Casas, F., & Abreu, D. P. (2017). Peer violence in the school environment and its relationship with subjective wellbeing and perceived social support among children and adolescents in Northeastern Brazil. *Journal of Happiness Studies, 18*, 1507–1532. https://doi.org/10.1007/s10902-016-9786-1

Arslan, G., & Coşkun, M. (2020). Student subjective wellbeing, school functioning, and psychological adjustment in high school adolescents: A latent variable analysis. *Journal of Positive School Psychology*, *4*(2), 153–164. https://doi.org/10.47602/jpsp.v4i2.231

Arslan, G., & Renshaw, T. L. (2018). Student subjective wellbeing as a predictor of adolescent problem behaviors: A comparison of first-order and second-order factor effects. *Child Indicators Research, 11*(2), 507–521. https://doi.org/10.1007/s12187-017-9444-0

Bauman, S., Meter, D. J., Nixon, C., & Davis, S. (2016). Targets of peer mistreatment: Do they tell adults? What happens when they do? *Teaching and Teacher Education, 57*, 118–124. https://doi.org/10.1016/j.tate.2016.03.013

Bradshaw, C. P., Sawyer, A. L., & O'Brennan, L. M. (2007). Bullying and peer victimization at school: Perceptual differences between students and school staff. *School Psychology Review, 36*(3), 361–382. https://doi.org/10.1080/02796015.2007.12087929

Card, N. A., Isaacs, J., & Hodges, E. V. E. (2007). Correlates of school victimization: Implications for prevention and intervention. In J. E. Zins, M. J. Elias, & C. A. Maher (Eds.), *Bullying, victimization, and peer harassment: A handbook of prevention and intervention* (pp. 339–366). Haworth Press.

Card, N. A., Stucky, B. D., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. *Child Development, 79*(5), 1185–1229. https://doi.org/10.1111/j.1467-8624.2008.01184.x

Casper, D. M. (2013). *Participant roles in aggression: Analysis of the overt and relational aggression participant role scales with confirmatory factor analysis. ProQuest Dissertations and Theses,* 146. Retrieved from http://ezproxy.library.arizona.edu/login?url=http://search.proquest.com/docview/1477859675?accountid=8360(1477859675)

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Erlbaum.

Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E., & Sadek, S. (2010). Predictors of bullying and victimization in childhood and adolescence: A meta-analytic investigation. *School Psychology Quarterly, 25*(2), 65–83. https://doi.org/10.1037/a0020149

Coyle, S., Weinreb, K. S., Davila, G., & Cuellar, M. (2022). Relationships matter: The protective role of teacher and peer support in understanding school climate for victimized youth. *Child & Youth Care Forum, 51*(1), 181–203. https://doi.org/10.1007/s10566-021-09620-6

Davidson, L., & M., & Demaray, M. K. (2007). Social support as a moderator between victimization and internalizing-externalizing distress from bullying. *School Psychology Review, 36*(3), 383–405. https://doi.org/10.1080/02796015.2007.12087930

Flaspohler, P. D., Elfstrom, J. L., Vanderzee, K. L., Sink, H. E., & Birchmeier, Z. (2009). Stand by me: The effects of peer and teacher support in mitigating the impact of bullying on quality of life. *Psychology in the Schools, 46*(7), 636–649. https://doi.org/10.1002/pits.20404

Glover, D., Gough, G., Johnson, M., & Cartwright, N. (2000). Bullying in 25 secondary schools: Incidence, impact and intervention. *Educational Research, 42*(2), 141–156. https://doi.org/10.1080/001318800363782

Goossens, F. A., Olthof, T., & Dekker, P. H. (2006). New Participant Role Scales: Comparison between various criteria for assigning roles and indications for their validity. *Aggressive Behavior, 32*(4), 343–357. https://doi.org/10.1002/ab.20133

Hawker, D. S. J., & Boulton, M. J. (2001). Subtypes of peer harassment and their correlates: A social dominance perspective. In J. G. Juvonen, S. (Ed.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 378–397). Guilford Press.

Hawkins, D. L., Pepler, D. J., & Craig, W. M. (2001). Naturalistic observations of peer interventions in bullying. *Social Development, 10*(4), 512–527. https://doi.org/10.1111/1467-9507.00178

Hektner, J. M., & Swenson, C. A. (2012). Links from teacher beliefs to peer victimization and bystander intervention: Tests of mediating processes. *Journal of Early Adolescence, 32,* 516–536. https://doi.org/10.1177/0272431611402502

Holt, M. K., & Espelage, D. L. (2007). Perceived social support among bullies, victims, and bully-victims. *Journal of Youth and Adolescence, 36*(8), 984–994. https://doi.org/10.1007/s10964-006-9153-3

Kärnä, A., Voeten, M., Poskiparta, E., & Salmivalli, C. (2010). Vulnerable children in varying classroom contexts: Bystanders' behaviors moderate the effects of risk factors on victimization. *Merrill-Palmer Quarterly, 56*(3), 261–282. https://doi.org/10.1353/mpq.0.0052

Kochenderfer-Ladd, B., & Pelletier, M. E. (2008). Teachers' views and beliefs about bullying: Influences on classroom management strategies and students' coping with peer victimization. *Journal of School Psychology, 46*(4), 431–453. https://doi.org/10.1016/j.jsp.2007.07.005

Li, L., Chen, X., & Li, H. (2020). Bullying victimization, school belonging, academic engagement and achievement in adolescents in rural China: A serial mediation model. *Children and Youth Services Review, 113*, 1–8. https://doi.org/10.1016/j.childyouth.2020.104946

Martin, K. M., & Huebner, E. S. (2007). Peer victimization and prosocial experiences and emotional well-being of middle school students. *Psychology in the Schools, 44*(2), 199–208. https://doi.org/10.1002/pits.20216

Niehaus, K., Rudasill, K. M., & Rakes, C. R. (2012). A longitudinal study of school connectedness and academic outcomes across sixth grade. *Journal of School Psychology, 50*(4), 443–460. https://doi.org/10.1016/j.jsp.2012.03.002

Polanin, J. R., Espelage, D. L., & Pigott, T. D. (2012). A meta-analysis of school-based bullying prevention programs' effects on bystander intervention behavior. *School Psychology Review, 41*(1), 47–65. https://doi.org/10.1080/02796015.2012.12087375

Perry, D. G., Kusel, S. J., & Perry, L. C. (1988). Victims of peer aggression. *Developmental Psychology, 24*(6), 807–814. https://doi.org/10.1037/0012-1649.24.6.807

Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification.* Oxford University Press.

Prinstein, M. J., Boergers, J., & Vernberg, E. M. (2001). Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child & Adolescent Psychology, 30*(4), 479–491. https://doi.org/10.1207/s15374424jccp3004_05

Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect, 34*(4), 244–252. https://doi.org/10.1016/j.chiabu.2009.07.009

Ranta, K., Kaltiala-Heino, R., Pelkonen, M., & Marttunen, M. (2009). Associations between peer victimization, self-reported depression and social phobia among adolescents: The role of comorbidity. *Journal of Adolescence, 32*(1), 77–93. https://doi.org/10.1016/j.adolescence.2007.11.005

Renshaw, T. L. (2015). A replication of the technical adequacy of the Student Subjective Wellbeing Questionnaire. *Journal of Psychoeducational Assessment, 33*(8), 757–768. https://doi.org/10.1177/0734282915580885

Renshaw, T. L., & Arslan, G. (2016). Psychometric properties of the Student Subjective Wellbeing Questionnaire with Turkish adolescents: A generalizability study. *Canadian Journal of School Psychology, 31*(2), 139–151. https://doi.org/10.1177/0829573516634644

Renshaw, T. L., & Bolognino, S. J. (2016). The College Student Subjective Wellbeing Questionnaire: A brief, multidimensional measure of undergraduate's covitality. *Journal of Happiness Studies, 17*, 463–484. https://doi.org/10.1007/s10902-014-9606-4

Renshaw, T. L., Hammons, K. N., & Roberson, A. J. (2016a). General versus specific methods for classifying US students' bullying involvement: Investigating classification agreement, prevalence rates, and concurrent validity. *School Psychology Review, 45*(4), 400–416. https://doi.org/10.17105/SPR45-4.400-416

Renshaw, T. L., Long, A. C., & Cook, C. R. (2015). Assessing adolescents' positive psychological functioning at school: Development and validation of the Student Subjective Wellbeing Questionnaire. *School Psychology Quarterly, 30*(4), 534–552. https://doi.org/10.1037/spq0000088

Renshaw, T. L., Roberson, A. J., & Hammons, K. N. (2016b). The functionality of four bullying involvement classification schemas: Prevalence rates and associations with mental health and school outcomes. *School Mental Health, 8*(3), 332–343.

Rigby, K. (2000). Effects of peer victimization in schools and perceived social support on adolescent wellbeing. *Journal of Adolescence, 23*(1), 57–68. https://doi.org/10.1006/jado.1999.0289

Sainio, M., Veenstra, R., Huitsing, G., & Salmivalli, C. (2011). Victims and their defenders: A dyadic approach. *International Journal of*

Behavioral Development, 35(2), 144–151. https://doi.org/10.1177/0165025410378068

Salmivalli, C., Lagerspetz, K., Björkqvist, K., Österman, K., & Kaukialnen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior, 22*(1), 1–15. https://doi.org/10.1002/(SICI)1098-2337(1996)22:1%3c1::AID-AB1%3e3.0.CO;2-T

Salmivalli, C., Voeten, M., & Poskiparta, E. (2011). Bystanders matter: Associations between reinforcing, defending, and the frequency of bullying behavior in classrooms. *Journal of Clinical Child & Adolescent Psychology, 40*(5), 668–676. https://doi.org/10.1080/15374416.2011.597090

Seon, Y., & Smith-Adcock, S. (2021). School belonging, self-efficacy, and meaning in life as mediators of bullying victimization and subjective well-being in adolescents. *Psychology in the Schools, 58*(9), 1753–1767. https://doi.org/10.1002/pits.22534

Smith, P., & Shu, S. (2000). What good schools can do about bullying: Findings from a survey in English schools after a decade of research and action. *Childhood, 7*(2), 193–212. https://doi.org/10.1177/0907568200007002005

Sterrett, E. M., Jones, D. J., McKee, L. G., & Kincaid, C. (2011). Supportive non-parental adults and adolescent psychosocial functioning: Using social support as a theoretical framework. *American Journal of Community Psychology, 48*, 284–295. https://doi.org/10.1007/s10464-011-9429-y

Storch, E. A., Brassard, M. R., & Masia-Warner, C. L. (2003a). The relationship of peer victimization to social anxiety and loneliness in adolescence. *Child Study Journal, 33*(1), 1–18.

Storch, E. A., & Masia-Warner, C. L. (2004). The relationship of peer victimization to social anxiety and loneliness in adolescent females. *Journal of Adolescence, 27*(3), 351–362. https://doi.org/10.1016/S0140-1971(04)00035-1

Storch, E. A., Nock, M. K., Masia-Warner, C., & Barlas, M. E. (2003b). Peer victimization and social-psychological adjustment in Hispanic and African-American children. *Journal of Child and Family Studies, 14*(4), 439–452. https://doi.org/10.1023/a:1026016124091

Sutton, J., & Smith, P. K. (1999). Bullying as a group process: An adaptation of the participant role approach. *Aggressive Behavior, 25*(2), 97–111. https://doi.org/10.1002/(sici)1098-2337(1999)25:2%3c97::aid-ab3%3e3.0.co;2-7

Swearer, S. M., & Espelage, D. L. (2011). Expanding the social-ecological framework of bullying among youth: Lessons learned from the past and directions for the future. In D. L. Espelage & S. M. Swearer (Eds.), *Bullying in North American schools* (2nd ed., pp. 3–10). Routledge.

Tapper, K., & Boulton, M. J. (2005). Victim and peer group responses to different forms of aggression among primary school children. *Aggressive Behavior, 31*(3), 238–253. https://doi.org/10.1002/ab.20080

Troop-Gordon, W. (2015). The role of the classroom teacher in the lives of children victimized by peers. *Child Development Perspectives, 9*(1), 55–60. https://doi.org/10.1111/cdep.12106

Turner, H. A., Finkelhor, D., Hamby, S. L., Shattuck, A., & Ormrod, R. K. (2011). Specifying type and location of peer victimization in a national sample of children and youth. *Journal of Youth and Adolescence, 40*(8), 1052–1067. https://doi.org/10.1007/s10964-011-9639-5

U.S. Department of Health and Human Services. (n.d.). Bystanders to bullying. *Stopbullying*.gov. Retrieved March 4, 2022, from https://www.stopbullying.gov/prevention/bystanders-to-bullying

Wachs, S., Bilz, L., Niproschke, S., & Schubarth, W. (2019). Bullying intervention in schools: A multilevel analysis of teachers' success in handling bullying from the students' perspective. *Journal of Early Adolescence, 39*(5), 642–668. https://doi.org/10.1177/0272431618780423

Whitaker, D. J., Rosenbluth, B., Valle, L. A., & Sanchez, E. (2004). Expect respect: A school-based intervention to promote awareness and effective responses to bullying and sex harassment, (pp. 328–350). In D. L. Espelage & S. M. Swearer (Eds.), *Bullying in American schools: A social-ecological perspective on prevention and intervention.* Lawrence Erlbaum Associates.

Williams, K. R., & Guerra, N. G. (2007). Prevalence and predictors of internet bullying. *Journal of Adolescent Health, 41*, s14–s21. https://doi.org/10.1016/j.jadohealth.2007.08.018