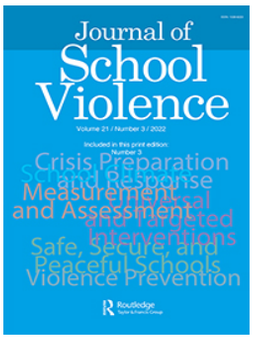

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Bullying Behavior and School Bonding for Predicting Student Engagement Among Chilean Adolescents

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ABSTRACT

Whereas most research has focused on the influence of teachers on student engagement, we postulate that peer experiences – particularly bullying behavior as a victim or perpetrator – impact student engagement over time. Using a sample of 525 adolescents (46% female, mean age = 13.51) nested within 31 classrooms from Chilean schools selected by convenience sampling design, we examined the relationship between victim and perpetrator on student engagement. Concurrently, we examined school bonding as a predictor of student engagement as well as its potential role as a protective factor. Our results indicated that perpetration predicted students' cognitive engagement (at the individual level), whereas both being a victim (at the individual level) and school bonding (at the individual and classroom levels) predicted emotional engagement. However, classroom-level school bonding did not moderate the relationship between bullying and student engagement. Our study highlights the importance of building positive school climates for improving student engagement.

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Bullying; student engagement; school bonding; adolescents; multilevel

Educators can certainly appreciate the difference between engaged and disengaged students. Research clearly supports the contention that engaged students are successful students, from the first days of elementary school through college (e.g., Author, 2020). Student engagement has evolved from a model primarily used to describe the processes that culminate in either school dropout and completion, to one that is increasingly viewed within a broader developmental context (Wang et al., 2019), building upon what J. A. Fredricks et al. (2004) termed a meta-construct that draws from work in public health, motivation, belonging, dropout prevention, and so forth (Fredericks et al., 2019a).

There is general agreement regarding the multifaceted nature of student engagement as including behavioral, emotional, and cognitive components (J. A. Fredricks et al., 2004; Finn & Zimmer, 2012; Fredricks et al., 2019a). Behavioral engagement includes student behaviors that educators view as most central to student engagement, such as attendance, conduct in class, and preparation for school. Emotional engagement refers to emotional reactions as well as the perceived quality of relationships with teachers and peers (Fredricks et al., 2019a). Finally, cognitive engagement refers to students' additional efforts to understand class material in depth, such as asking questions during class, reading supplemental material, and using advanced cognitive strategies (Finn & Zimmer, 2012). Students' future goals and perceived relevance of education to their future are also used as indicators of students' cognitive engagement (Appleton et al., 2006).

Key to student engagement theory is the role of contexts, particularly families, peers, classrooms, schools, and communities, in promoting or inhibiting students' engagement at school and with learning (Reschly, 2020; Reschly and Christenson, 2019b). In its simplest form, contexts affect students' engagement, which in turn, is related to student outcomes in both the short and long

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term. There is an ever-expanding literature on the associations and mechanisms of influence between these contexts, student engagement, and outcomes, including the role of families (Reschly and Christenson, 2019a), school climate and practices (e.g., Gregory & Skiba, 2019), peers in general (Ryan et al., 2019), and bullying more specifically as victim or perpetrator (Green et al., 2019; Laith & Vaillancourt, 2022). Inherent in engagement theory are the notions of mutual influence (Author, 2019b; Wang et al., 2019), acknowledged role of personal factors (Wang et al., 2019), and person-environment fit (Author, 2020). Engagement scholars recognize students experience contexts in unique ways; a good instructional match or satisfactory experience of autonomy support for one student may not be an equally good fit for another (Author, 2020). Thus, it is students' individual perceptions of their engagement and contexts that are imperative for measurement and intervention efforts (Appleton et al., 2006; Author, 2019b).

It is within this broad student engagement framework that this study was conducted. We examined how students' individual and shared perceptions of school climate in the form of school bonding as well as bullying perpetration and victimization experiences are related to cognitive and emotional engagement among Chilean adolescents.

School bonding as subset of school climate

School climate is a multidimensional construct (Wang & Degol, 2016). Although there is some variability across scholars in terms of dimensions of school climate, a comprehensive review of the school climate literature was organized around the following five dimensions: safety, relationships, teaching and learning, institutional environment, and the school improvement process (Thapa et al., 2013). School bonding is defined as one dimension of school climate, significant for adolescent development.

It is widely accepted that school climate influences achievement, as well as students' behavioral (e.g., bullying, aggression, substance use), psychological, and social outcomes (Wang & Degol, 2016). Further, engagement theory also posits that school climate influences students' engagement (Author et al., 2019), a contention largely supported in the literature. Consistent with this premise, empirical evidence shows a consistent association between school climate and psychological and behavioral engagement among adolescents (e.g., Bradshaw et al., 2014). For instance, Mehta et al. (2013) studied a large sample of 7,058 9th graders from 289 schools and found that perceptions of bullying victims aggregated at the school level were negatively related to students' commitment and involvement with school. A study of 10th graders from the Education Longitudinal Study in the U.S. found that student victimization predicted individual student engagement, whereas perceptions of hostility at the school level predicted lower engagement (Ripski & Gregory, 2009). Likewise, Cornell et al. (2016) found that schools with higher ratings of fair discipline practices and supportive teacher–student relationships had more engaged students. In Chile, a recent study of 114,643 students in eighth grade found that students' and teachers' perceptions of a negative school climate increased the probability of dropping out of school (Contreras et al., 2022), highlighting the importance of school climate for student engagement.

Bullying behavior

Bullying behavior is defined as a person being the victim or perpetrator of consistently aggressive behaviors over time and without the opportunity to defend themselves (Olweus, 1993). Bullying behavior, as a victim or perpetrator, takes place across cultures. An international comparison using a sample of 202,056 adolescents (11–15 years old) from 40 different countries found that 10.7% of adolescents bullied others, 12.6% were victims, and 3.6% were bullies and victims simultaneously (Craig et al., 2009). In contrast, studies in Latin American countries (not included in Craig et al.'s study) have shown that the prevalence of bullying behaviors is 29.31% as a victim or perpetrator (Herrera-López et al., 2018). Negative school experiences, such as being the victim of bullying, are

linked with lower student achievement (Nakamoto & Schwartz, 2010) and well-being (Author et al., 2019). Short term effects of being bullied include anxiety and depression (Schoeler et al., 2018) and suicidal ideation (Moore et al., 2017).

Research further suggests that perpetrators of bullying also experience negative outcomes. For example, a recent meta-analysis of 156,284 adolescents (ages 11 to 19) found that bullying perpetration and victimization were associated with deliberate self-harm, which is linked to adolescent suicidality (Heerde & Hemphill, 2019). Consistent with these results, Holt et al.'s (2015) meta-analysis, including bully/victims, victims, and perpetrators, linked all of the roles with suicidal ideation and behaviors. Perpetrators of bullying behaviors also tend to develop mental health problems (Gini & Pozzoli, 2013). For instance, meta-analytic findings suggest that bullying perpetration and victimization predict violent behavior later in life (Ttofi et al., 2012), which further underscores the negative, long-lasting effects of bullying behavior.

Bullying behavior, as a victim or perpetrator, in school is also related to students' engagement and school climate. The presence of bullying, as a victim, perpetrator and bystander, damages school climate, and impairs students' relationships and engagement at school (Green et al., 2019). A few studies have examined the role of peer relationships and different roles for bullying behavior with student engagement during adolescence. Li et al. (2011) examined a sample of 1,676 students from the 6th to 8th grade in the U.S. Results indicated that higher perceived peer support and less bullying, as victims and perpetrators, were associated with increased student engagement during adolescence. A subsequent study by Totura et al. (2014) found that student engagement was a mediator between peer victimization and academic achievement in a sample of 469 6^{th} through 8^{th} grade students.

There are complex associations between school climate, bullying experiences and behavior, and their effects on students' engagement wherein school climate may moderate the relationship between bullying and engagement. For example, Yang et al. (2018) examined the impact of bullying victimization on student engagement and explored the moderating effect of school climate on this association with more than 25,000 students in grades 4–12. Whereas positive school climate was associated with higher student engagement, Yang et al.'s findings also suggested that the experience of victimization was particularly detrimental to students' engagement among schools with positive climates. It is important to highlight that the school climate measure utilized in Yang et al. was comprised of the dimensions "relationships" and "safety and respect for diversity." In contrast, in the present study the school climate measure focuses on students' sense of belonging (i.e., school bonding), a facet of school climate that could act as a buffer against negative peer experiences for reasons explained later. In addition, unlike Yang et al.'s study, the target of school climate in this study is at the classroom-level rather than the school level due to the organization of classrooms and teaching practices in Chile where our research was conducted.

Research on school climate, bullying, and student engagement in Chile

Bullying experiences, as a victim or perpetrator, in Chile, like in other parts of the world, is a public health concern. Thus, governmental organizations have conducted different national studies to understand this behavior. For instance, in 2014, a national survey found that 22.3% of the students indicated that they were physically attacked by other students, compared to 24.1% who indicated that they attacked other students during the same time in school (Ministerio del Interior, 2014). The 2018 National Youth Survey results showed 25.2% claim to have suffered, at least once in their life, situations of physical or psychological aggression from peers (Instituto Nacional de la Juventud, 2019).

Research in Chile about student engagement is still scarce and mostly focused on dropout prevention. A recent study of student satisfaction with Second Opportunity Centers, which targets students who have dropped out, found that girls seemed to be more engaged (Espinoza et al., 2020). Román (2013) recognized endogenous, exogenous, material, political, and cultural risk factors in Chile for students' dropout. In particular, lower-income students, those with attendance difficulties, poor

achievement, and course failures are at greater risk for dropping out. Yet, a multidimensional and empirical understanding of student engagement is still missing. Thus, previous studies have not considered bullying behavior and school climate dimensions.

It is important to include information about the educational system in which our research was conducted. In Chile, education spans four levels: nursery, basic, middle, and higher school. Basic education comprises 8 years, whereas secondary education is 4 years: both are regulated by the Ministry of Education (MINEDUC, 2019). According to the Ministry, the Chilean education system had 3,582,351 (66.9% Basic Education and 33.1% Secondary Education) students across 11,574 educational establishments (70.2% urban and 29.8% rural) with 241,816 teachers. These educational establishments are divided into Public (42.5%), Semi Public (49%), Private (5.9%), and delegated administration Corporations/other (2.6%; MINEDUC, 2019). Education expenditures in Chile account for 6.2% of gross domestic product (GDP), of which 3.6% is devoted to primary and secondary education and 2.6% toward higher education (OECD, 2020).

Study overview and hypotheses

The present study seeks to contribute to the literature in three ways. First, we examined whether school bonding predicts students' emotional and cognitive engagement while considering the influence of bullying behavior. In particular, we hypothesized a negative relationship between bullying behaviors (as a victim and as a perpetrator) and school bonding with emotional and cognitive engagement. A second goal was to explore the role of school bonding at the classroom-level as a protective factor (i.e., a moderator) in the relationship between bullying behavior and student engagement. Student engagement was assessed 1 year after the measures of bullying and school bonding were administered, a design that allowed us to assess the usefulness of school bonding as a predictor of engagement. Third, consonant with calls to better understand the role of the national context on students' school experiences, we surveyed Chilean students. Because students in Chile stay in the same class during the entire school year (with teachers moving from class-to-class during the school day), we expected classroom-level bonding to be a significant predictor of student engagement. Because our expectations involve relationships at the individual (student) level, at the classroom level, and across levels (i.e., the effect of classroom-level variables on individual-level variables and individual-level relationships), we utilized a multilevel approach for analyzing the data and examine the research hypotheses that we offer in the following paragraph.

Based on previous theory and research, we tested the following hypotheses. First, we expected bully (a) and victim (b) to be negatively correlated with emotional student engagement (*H1a* and *H1b*) and cognitive student engagement (*H2a* and *H2b*). Second, we expected class-level school bonding to be positively correlated with emotional (*H3a*) and cognitive (*H3b*) student engagement after accounting for individual-level school bonding. Finally, we posited that school bonding would mitigate the negative association between bullying behavior and student engagement. Specifically, we expected to find an interaction between class-level school bonding and bullying behaviors such that the relationship (slope) between bully (a) and victim (b) with emotional student engagement would be lower among schools with higher bonding (*H4a* and *H4b*). We set the same expectation for the relationship between bully, victim, and school bonding using cognitive student engagement as criterion (*H5a* and *H5b*).

Method

Participants

We used a convenience sample design for the present study inviting different types of schools. The distribution of these school types in Chile is as follows: Public: 42.5%, Semi-Public: 49%, Private: 5.9%, and other: 2.6% (MINEDUC, 2019). Whereas most students enrolled in private schools come from

high socio-economic status (SES) families (ninth and tenth deciles), public and semi-public schools recruit students from a wide range of SES. That said, *within* school variation in SES is fairly low. For instance, some semi-public schools have mainly lower SES students, whereas other semi-public schools have mainly middle SES students (Mizala & Torche, 2012). Because educational achievement scores are partially accounted for by SES, it is not surprising that public and semi-public schools in Chile perform considerably worse in standardized achievement tests compared to private schools. For the purpose of present research, it is important to highlight that student participants were mostly enrolled in academically underperforming public and semi-public schools that scored below the national average in reading ($d = -0.20$) and mathematics ($d = -0.26$) in a standardized national test.

Schools in Chile offer primary education, high school, or both. Thus, to have a more diverse sample, we included schools for each type. We invited two public, three semi-public private subsidized, and one paid private schools. All schools agreed to participate in our study. We collected data from all students in the 7th to 9th grade (year 1) in those six schools. The following year, we administered the questionnaires to the same students, now in grades 8, 9, and 10. Data were collected during 2018 (Time 1) and 2019 (Time 2). Paper and pencil surveys were self-administered during school hours under the supervision of trained psychologists. Before completing the surveys, parent and student consent were obtained following ethical protocols approved by the first author's university.

The initial sample consisted of 791 students nested in 31 classrooms from the six schools. Participant consent rate for 2018 was 98.40% and for 2019 was 99.12%. At Time 1, four students failed to complete the bully and victim measures, which reduced the data to 787 students. Of the 787 students surveyed at Time 1,556 also responded to the survey at Time 2, an attrition rate of 29.4%. However, 31 students were dropped from the final sample due to missing data in at least one of the study's focal variables. Thus, the final sample consisted of 525 students (46% female, mean age = 13.51) with complete data at Time 1 and Time 2.

For the emotional engagement measure (19 items) the majority of respondents (436, 83.1%) had complete data, 85 (16.2%) had 1 or 2 missing items, and the rest (4 participants) had between 3 and 10 missing items. Similarly, for the cognitive engagement measure, the majority of respondents (467, 89.0%) had complete data, 53 (10.1%) missed one or two items, and the rest (5 participants) missed between 2 and 5 items of the 14 items that comprise this measure. The bullying (nine items) and victim (four items) measures had complete data for 517 (98.5%) and 520 (99.1%) participants, respectively. Finally, for the school bonding measure (three items) 549 (99.46%) participants had complete data, and one participant had 2 missing items. Because each variable was obtained by averaging its corresponding items, the impact of missing items per participant on the parameters of the final model was deemed trivial.

Measures

Control variables

Student engagement declines as students' move from middle to high school (National Research Council and the Institute of Medicine, 2004). Age and sex are also relevant to bullying research. Specifically, male students are more likely than female students to experience physical bullying and overall rates of bullying appear to peak in middle school and then decline through 12th grade (National Center for Education Statistics, 2019). A similar pattern for the association between sex and age and bullying has been observed among Chilean adolescents (Ministerio del Interior, 2014). Consequently, students' age and sex were included as control variables.

Student engagement

Cognitive and emotional engagement was measured using the Student Engagement Instrument (SEI). The SEI was translated into Spanish by the Habilidades para la Vida III (Skills for Life III) dropout prevention program in Chile. This program is administered by a division of the Minister of Education (the Junta Nacional de Auxilio Escolar y Becas [JUNAEB; National Association of School Assistance

and Scholarship]). Bilingual mental health professionals from the program translated the SEI into Spanish, which was further validated by native speakers and professional translators following the back-translation approach (Hambleton et al., 2004). The SEI consists of six subscales to assess cognitive engagement (control and relevance of schoolwork, extrinsic motivation, future goals, and aspirations) and emotional engagement (family support for learning, peer support for learning, teacher–student relationships).

Students responded to each of the 35 SEI items using a 4-point Likert scale (1 = *completely disagree*; 4 = *completely agree*). Emotional and cognitive engagement scores were obtained by averaging the scores of their respective subscales. Cronbach's alpha (α) and omega coefficient ($_t$; e.g., Trizano-Hermosilla & Alvarado, 2016) were obtained for each subscale. Reliabilities for the emotional engagement subscales (teacher–student relationships [nine items, α = .89, $_t$ = .91], peer-support for learning [five items, α = .85, $_t$ = .90], and family support for learning [four items, α = .76, $_t$ = .78]) and for the cognitive engagement subscales (control and relevance of schoolwork [nine items, α = .76, $_t$ = .82], future-goal aspirations [five items, α = .78, $_t$ = .82] and extrinsic motivation [two items, α = .75]) were adequate.

We conducted a confirmatory factor analysis to examine the factorial structure of the SEI. Specifically, the mean scores of the six subscales of the SEI were analyzed assuming a 1- and 2-factor model. As expected, the fit of the 2-factor model (CFI = .97, TLI = .94, RMSEA = .09) was superior to the 1-factor model (CFI = .95, TLI = .91, RMSEA = .10). However, the factor loading of the subscale extrinsic motivation was nearly zero in the 1- and 2-factor model. Excluding the extrinsic motivation subscale improved the fit of the 2-factor solution (CFI = .98, TLI = .97, RMSEA = .08). Consequently, scores for cognitive engagement were obtained by averaging the control and relevance of schoolwork and future goal and aspiration items (extrinsic motivation was excluded). The exclusion of the extrinsic motivation factor is consistent with other studies of the SEI (e.g., Lovelace et al., 2017).

Bullying

A subset of the Illinois Bully Scale (IBS; Espelage & Holt, 2001) was used to determine whether students engaged in bullying behaviors toward others in school, such as teasing, spreading rumors, and excluding other students. The IBS measure has previously been used in Chile with urban adolescents with promising psychometric attributes (e.g., Author et al., 2019). The subscale consisted of nine items about bullying behaviors (e.g., "I upset other students for the fun of it" and "In a group I teased other students"). Students indicated how often they engaged in the specified behaviors during the last 30 days using a 4-point frequency scale (1 = *never*; 4 = *almost always*; α = .82, $_t$ = .86). Total scores on this measure were obtained by averaging student responses to the eight items, with higher scores indicating more frequent aggressive behavior.

Victim

This measure assesses whether a respondent has been a victim of bullying and consists of four items drawn from the IBS Victim subscale (Espelage & Holt, 2001). The victim measure uses a 4-point frequency scale (1 = *never*; 4 = *almost always*) and asks students about aggressive behavior in the school directed toward them (e.g., "I got hit and pushed by other students"; "Other students picked on me") during the last 30 days. Scores on the victim measure were obtained by averaging the four items, with higher values indicating more frequent aggressive behavior directed. The reliability of the resultant scores was adequate (α = .83, $_t$ = .85).

School bonding

This measure was developed in 2006 by the Chilean Ministry of Education and Homeland Office. This measure asks about students' feelings of connection and proximity toward their school and their members and is comprised of three items ("I feel proud of my school," "I would like to stay at this school next year," and "I feel part of my school") with the same 5-point Likert scale (1 = *completely*

disagree; 5 = *completely agree*). Scores were also obtained by averaging participant responses to the three items (α = .80, $_t$ = .82) with higher scores indicating higher school bonding. The class level (i.e., level 2) analogue of school bonding was obtained by averaging student scores from the same class.

Data analysis

Data were analyzed via multilevel modeling (MLM) using the R package lme4 (Bates et al., 2015). This analytical strategy was necessary for taking into account the hierarchical structure of the data (i.e., students nested in classes). The main advantage of MLM is that the relationship between the variables of interest takes into account the fact that individual observations (i.e., students) are grouped into clusters (i.e., classrooms). In educational contexts, scores from students that belong to the same classroom are not completely independent–that is, students from the same classroom will be more similar to each other than to students from other classrooms. This effect is generally not trivial and may cause strong biases to standard statistical tests that lean heavily on the assumption of independent of observations. Specifically, in conventional tests, the estimate of standard errors tends to be exceedingly small, which leads to many spuriously statistically significant results. Consequently, in the presence of hierarchical data structures, MLM yields a more conservative yet accurate estimate of the relationships between variables. Although a complete review of MLM is beyond the scope of the present work, we highly recommend the introductory textbook by Hox et al. (2018) and the companion website that includes tutorials for implementing MLM using various softwares including R.

To test the study hypotheses, we used a model-contrasting approach wherein each new model progressively increases in complexity by adding predictors within (Level 1) and between (Level 2) levels. In addition to the statistical significance tests of the specified paths, we examined log-likelihood ratios (*LR*) to determine the adequacy of including the specified predictors in each model as a set. A summary of the models evaluated are presented in the paragraphs that follow.

Model 1 only included the control variables (i.e., group-mean centered age and sex) as predictors of cognitive (COG) and emotional (EMO) engagement. In Model 2, bully, victim, and individual-level school bonding were added (group-mean centered). Then, in Model 3 COG and EMO were regressed on class-level school bonding. Finally, Model 4 was used to examine whether class-level school bonding moderated the path from bully→ COG, victim→COG, bully→EMO, and victim→EMO. Maximum likelihood estimation was used to estimate the model's parameters.

Results

Table 1 shows the raw zero-order correlations between the study variables. As expected, age and sex were statistically significantly associated with some predictors and outcome variables. Age was negatively associated with school bonding, EMO, and COG. Also, as indicated by its negative associations with bullying, females engaged in aggressive behaviors less often than males. Finally, females showed lower school bonding and EMO. Consequently, we maintained both age and sex as control variables in subsequent models. First, we estimated a baseline model using COG and EMO as

Table 1. Descriptives and inter-correlations between study variables.

	M	SD	1	2	3	4	5	6
1. Age	13.51	1.16						
2. Sex [Female]	0.46	0.50	−.01					
3. Victim	1.62	0.68	−.02	−.05				
4. Bully	1.43	0.43	.02	**−.11**	**.45**			
5. School bonding	3.98	0.91	**−.25**	**−.13**	**−.22**	**−.20**		
6. Emotional engagement	3.22	0.43	**−.18**	**−.10**	**−.20**	**−.15**	**.34**	
7. Cognitive engagement	3.30	0.41	**−.16**	−.05	−.05	**−.13**	**.13**	**.56**

N = 525. Emotional and cognitive engagement measured approximately 1 year after variables 1 through 4. Values in bold are statistically significant (p < .05, two-tailed)

dependent variables with no predictors. To confirm whether or not a multilevel analytical approach was required, we calculated the design effects for COG and EMO. Design effects can be computed from the intraclass correlation coefficients (ICC) values using the formula: 1 + (average cluster size – 1) × ICC, wherein ICC represents the degree to which students resemble each other within each class or the proportion of variance in the specified variables that lies between groups. The ICC for COG and EMO in the baseline model were .099 and .092, respectively. The average group size was 16.94 and the corresponding design effects for COG and EMO were 2.58 and 2.47, respectively. According to Lai and Kwok (2015), MLM techniques are needed when design effects are as small as 1.1. Consequently, results from this initial step confirmed that it was critical to utilize an MLM approach.

Models 1 and 2 evaluated the association between Level 1 predictors and outcomes taking into account the nested structure of the data (Table 2). As shown in Table 2, age was negatively related to COG, and females had lower EMO.

Model 2 included bully, victim, and individual-level school bonding as predictors of COG and EMO. Consistent with *H1b* and *H2a*, victim was negatively associated with EMO, and bully was negatively associated with COG. In contrast, the association between bully and EMO and victim with COG was not statistically significant (*H1a* and *H2b* were not supported). Furthermore, a likelihood comparison suggested that including bully as a predictor of EMO did not improve model fit, $\chi^2(1) = 1.42$, $p > .05$. Similarly, including victim as a predictor of COG did not improve a model including only bully and individual-level school bonding, $\chi^2(1) = 0.15$, $p > .05$. Consequently, the links from bully→EMO and victim→EMO were excluded from subsequent models.

Model 3 examined whether class-level school bonding predicted EMO (*H3a*) and COG (*H3b*) controlling for the effects of bully and victim at the individual level. Importantly, to disentangle the within- and between-level effects of school bonding, we kept school bonding as an individual-level predictor of EMO and COG. Supporting *H3a* the effect of class-level school bonding on EMO was statistically significant (= 0.15, = 0.13, $p < .05$). The fit of this model was better than the fit of Model 2, $\chi^2(2) = 4.13$, $p < .05$. However, class-level school bonding did not predict COG (*H3b*).

For interpretation purposes, Table 2 includes the standardized coefficients along the raw coefficients. Standard coefficients should be interpreted as the change in y standard units when x changes in x standard units by 1. For instance, a coefficient of .13 for the association between school bonding and emotional engagement indicates that students one standard deviation above the mean in school bonding will score .13 standard deviations above the mean in emotional engagement.

Given that group-centering was used at the student level, subtracting the within- from the between-level coefficient reflects the contextual effect of school bonding, or the expected difference in EMO between two students who have the same individual school bonding, but attend classes differing by one unit in mean school bonding. Based on Table 2 estimates, the magnitude of contextual effects of school bonding on EMO is .15 – .11 = .04. Thus, class-level school bonding had a small statistically significant effect on EMO over and beyond its individual-level analogue. It is also informative to examine the values of the marginal and conditional R^2 (see Nakagawa et al., 2013). As shown in Table 2, the marginal R^2 obtained suggest that 15.9% of the variance in emotional engagement can be accounted for the individual-level predictors (age, sex, bully, victim, and school bonding), but adding mean class-level school bonding result in a conditional R^2 of 21.7%, which means that 5.8% of the variance of the resulting model can be attributed to the addition of mean school bonding as a predictor.

Model 4 (not shown in Table 2) examined whether class-level school bonding moderated the effect of bully and victim on COG and EMO (H4a, H4b, H5a, and H5b). To test each hypothesis, a latent random slope was estimated for each predictor-outcome association at level 1 – namely, bully→EMO, bully→COG, victim→EMO, and victim→COG. However, because the residual variance of the slopes was not statistically significant, estimating the cross-level effect of class-level school bonding (or any level 2 predictor, for that matter) would have been misleading. That is, it is inappropriate to use a level 2 predictor when no (statistically significant) variation exists between level 1 slopes. Consequently, we found no evidence supporting H4 and H5.

Table 2. Multilevel analysis results with cognitive and emotional engagement as dependent variables.

	Model 1				Model 2				Model 3			
	COG		EMO		COG		EMO		COG		EMO	
Level 1 Predictors												
Age [a]	**−0.07**	(−0.**21**)	**−0.07**	**(−0.19**)	**−0.06**	**(−0.18)**	**−0.05**	**(−0.13)**	**−0.07**	**(−0.20)**	−0.03	(−0.09)
Sex [Female] [a]	0.04	(0.05)	**−0.09**	(−0.**11**)	0.04	(0.05)	**−0.07**	**(−0.08)**	0.04	(0.09)	**−0.07**	**(−0.08)**
Bully [a]					**−0.10**	**(−0.10)**	-	-	**−0.10**	**(−0.10)**	-	-
Victim [a]					-	-	**−0.08**	**(−0.13)**	-	-	**−0.09**	**(−0.14)**
School Bonding [a]					**0.04**	**(0.10)**	**0.11**	**(0.24)**	**0.04**	**(0.10)**	**0.11**	**(0.23)**
Level 2 Predictors												
Mean School Bonding [b]									−0.04	(−0.04)	**0.15**	**(0.13)**
Residual Variance												
Level 1	0.143		0.160		0.140		0.147		0.140		0.147	
Level 2	0.018		0.018		0.018		0.012		0.018		0.011	
R^2												
Marginal R^2	0.045		0.047		0.067		0.135		0.065		0.159	
Conditional R^2	0.150		0.145		0.171		0.199		0.171		0.217	
Log likelihood	−259.907		−285.891		−257.198		−266.536		−258.628		−266.236	

N students = 525; N classes = 31.
[a]Group-mean centered. [b]Grand-mean centered; COG = Cognitive engagement; EMO = Emotional engagement. COG and EMO measured approximately 1 year after predictor variables. Values in bold are statistically significant ($p < .05$, two-tailed). Numbers in parentheses are standardized coefficients.

Discussion

Schools are a primary context for youth development. Relationships with teachers and peers, school climate, and the presence of bullying behaviors as victim or perpetrator within the school context have been associated with students' engagement at school and with learning, which in turn, is related to both proximal (e.g., achievement) and distal outcomes (e.g., graduation). The purpose of this study was to examine school bonding, a dimension of school climate, at the classroom-level in tandem with different roles for bullying behaviors and explore their effects on Chilean students' emotional and cognitive engagement. We also examined whether school bonding moderated the relationship between bullying victims and perpetrators and student engagement. Our results indicated that perpetrators of bullying predicted less students' cognitive engagement, whereas both school bonding and being a victim predicted less emotional engagement. Thus, negative experiences, such as bullying as victim and perpetrator, may continue to have a determinantal negative effect on student engagement 1 year later. However, our results did not support the hypothesis that school bonding moderated the effect of victim and perpetrator of bullying behavior on student engagement.

Our first hypothesis tested the negative effect of school bonding on student engagement while considering the effect of bullying behavior, as a victim or perpetrator. The direct associations between bullying as victim or perpetrator and school bonding with emotional and cognitive engagement were expected based on the extant literature. There is a broad range of negative mental health outputs for victims and perpetrators of bullying behavior (Moore et al., 2017; Schoeler et al., 2018). In line with these results, our findings show that bullying behaviors as a victim and perpetrator have a negative effect on students' engagement (see, also Li et al., 2011). However, we also found that the linkage between bullying behaviors and engagement depends on the specified facet of bullying behaviors (i.e., perpetrator or victim). Specifically, perpetrators were less cognitively engaged, whereas victims reported lower emotional engagement. Cognitive engagement refers to students' positive attitudes toward learning and their efforts to master the to-be-learned material (e.g., using in-depth cognitive strategies; Finn & Zimmer, 2012). Cognitive engagement also encompasses students' educational aspirations and goal aspirations regarding their academic future (Appleton et al., 2006). A Finnish study found that peer interactions did not directly affect cognitive engagement (Pietarinen et al., 2014). It is possible that contextual variables, such as instructional variables and family support for learning, have a greater impact on cognitive engagement, whereas peer experiences are more directly related to students' emotional engagement. In this vein, it is perhaps not surprising that being the victim of bullying negatively affects students' emotional engagement, which is often measured as students' perceptions of their relationships with teachers and peers and feelings of belonging and identification with school. Dimensions of student engagement – cognitive, affective, and behavioral – are closely related; however, how these dimensions interact over time to affect student outcomes is largely unknown and represents an important direction for future research.

Our second hypothesis was to test school bonding as a protective factor (i.e., moderating variable). Contrary to expectations, however, bonding did not moderate the association between bullying - victim and perpetrator - and students' engagement. This may be due to differences in how bonding and engagement were operationalized in the present study, characteristics or limitations in our sample (e.g., convenience sample, missing data), or may represent cultural differences due to the structure of Chilean schools wherein students remain in the same classroom all day, while teachers transition from room to room. The classroom represents a significant proximal context for peer interactions and student engagement, especially in the Chilean educational system wherein the same students work as a group during the whole academic year. Although in the present study we focused on school bonding as a classroom-level predictor because different climates can coexist in the same context future studies may examine how other types of climates affect student engagement.

Lastly, our third hypothesis was to test our model for the Chilean context considering students share the same classroom during the day for the entire school year. Among the first of such studies in South America in general, and Chile in particular, our results add to the evidence linking school experiences, such as victim and perpetrator of bullying, and students' reports of bonding with school

to their subsequent engagement at school and with learning. There is a growing awareness of the importance of and evidence base for building positive connections with teachers and among students (e.g., Ryan et al., 2019) and addressing students' social and emotional well-being (e.g., Author et al., 2019). Even among bullying prevention programs, scholars recognize the importance of focusing on school climate (Green et al., 2019). Indeed, past research suggests that school climate moderately mediates the effectiveness of bullying interventions (e.g., Low & Van Ryzin, 2014) such that positive school climates facilitate the reduction of bullying-related attitudes and behaviors associated with the implementation of said interventions. In other words, bullying interventions improve school climate which, in turn, affect the targeted outcomes.

Mounting evidence supports the effectiveness of programs for building positive connections with peers and teachers at school (Juvonen et al., 2012). Research suggests that school interventions have a positive effect on school bonding and peer relationships (Fredricks et al., 2019a; Reschly et al., 2017) which, in turn, positively impact student engagement (Fredricks et al., 2019b). For instance, Low and Van Ryzin (2014) found that school climate mediated the effect of a program (*Steps to Respect*) for reducing bullying behavior. In the same vein, Lam et al. (2015) found that promoting a closer relationship with teachers resulted in less bullying behaviors in the future. Hence, research on successful student engagement programs has shown that context matters (Fredricks et al., 2019b) and that improving positive relationships within schools pays off at different levels.

As expected, age was negatively associated with school bonding and students' emotional and cognitive engagement. This is consistent with other research showing declines in student engagement and motivation as students progress through school (e.g., National Research Council and the Institute of Medicine, 2004). Also consistent with prior research, females engaged in overt, physically aggressive behaviors less often than their male counterparts. It was surprising, however, that females reported lower levels of student engagement in our sample. Other studies find that females are more likely to show positive signs of engagement, are less likely to be disengaged (e.g., Lawson & Masyn, 2015) and are more likely to graduate from high school (Lovelace et al., 2017). Given the still nascent state of research on student engagement in Chile, it is unknown whether this is anomalous or whether there are gender differences in student engagement in the Chilean educational context.

This study further underscores the importance of peer experiences and adolescents' engagement at school and with learning. It behooves educators to pay close attention to those who participate in and are affected by bullying victimization as well as the overall promotion of a positive school climate. Victims of bullying in particular may experience greater emotional harm, which in turn may have long-term effects on their school performance through diminished engagement. Moreover, as we described in the introduction, school climate is an essential factor in preventing students from dropping out of school in the Chilean context (Contreras et al., 2022). In Chile, considering that students share the same classroom for the whole day, this reinforces the importance of building positive peer relationships and climate.

Our results also support the usefulness of collecting data regarding students' perceptions of the learning environment and their own engagement. These data may be used formally as part of Early Warning Systems or separately; however, student self-report can be an important source of information for screening, follow-up, and intervention monitoring within Multi-Tiered Systems of Support (Author et al., 2020). Finally, as the number of evidence-based and promising programs and practices to enhance student engagement grows (e.g., Fredricks et al., 2019; Author et al., 2020), educators should select those programs that fit with the needs and population of their particular context; however, given the still nascent state of this intervention work, it is important to evaluate the effects of such interventions in their unique settings (Author, 2020).

Limitations

Previous studies have shown a relationship between bullying behavior as a victim and perpetrator, school climate, and student engagement using data at the school level (e.g., Cornell et al., 2016; Yang et al., 2018). In contrast, in the present study school bonding was aggregated at the classroom level.

Because the items comprising the school bonding measure use the school as a referent, it may be problematic to aggregate these items at the classroom level. Other studies could examine the effect of school bonding at the school level.

Future studies would benefit from including cyber forms of bullying. Previous research has shown that cyberbullying is even more pervasive and consequential for adolescent victims than more traditional forms of bullying victimization (i.e., Van Geel et al., 2104). Including cyberbullying could result in a more comprehensive picture of bullying victimization and outcomes among Chilean adolescents.

Although self-report measures are commonly used in this literature, it is widely accepted that exclusive reliance on self-reported measures may inflate resultant relationships. Because the temporal separation between the predictor (bullying behaviors as a victim or perpetrator and school bonding) and predicted variables (student engagement) was substantial, common method variance is not particularly concerning. To further ameliorate such concerns, future studies could combine other sources of information, such as teacher and parent reports.

Previous studies have shown that there is a complex relationship between racial and ethnic differences and student engagement (Bingham & Okagaki, 2012). Racial and ethnic differences were not included in this study, because we did not ask for that information in the survey. However, we recognize the importance of racial and ethnic diversity in Chile which is increasing, and therefore future studies should take such demographic information into account.

It is also worth noting that there are several factors that may be associated with student engagement that could be included as controls, such as family structure and household income level. Although our main hypotheses were not conditional on such controls, future research could benefit from determining the relative contribution of other variables on student engagement or the extent to which other variables may distort the empirical relationship observed in the present study.

Conclusion

Our findings suggest that bullying behavior as a victim and perpetrator and school bonding are associated with student engagement over time. Consonant with previous findings showing the benefits of building more positive school contexts, we found that less bullying behaviors and positive school bonding are associated with more student engagement.

Disclosure statement

The SEI has been made available for free to researchers and educators around the world. Amy Reschly may receive royalties from a web-based version of the SEI.

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References

Appleton, J. J., Christenson, S. L., Kim, D., & Reschly, A. L. (2006). Measuring cognitive and psychological engagement: Validation of the student engagement instrument. *Journal of School Psychology*, *44*(5), 427–445. https://doi.org/10.1016/j.jsp.2006.04.002

Bates, D., Maechler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, *67*(1), 1–48. https://doi.org/10.18637/jss.v067.i01

Bingham, G. E., & Okagaki, L. (2012). Ethnicity and student engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 65–95). Springer. https://doi.org/10.1007/978-1-4614-2018-7_4

Bradshaw, C. P., Waasdorp, T. E., Debnam, K. J., & Johnson, S. L. (2014). Measuring school climate in high schools: A focus on safety, engagement, and the environment. *Journal of School Health*, *84*(9), 593–604. https://doi.org/10.1111/josh.12186

Contreras, D., González, L., Láscar, S., & López, V. (2022). Negative teacher–student and student–student relationships are associated with school dropout: Evidence from a large-scale longitudinal study in Chile. *International Journal of Educational Development*, *91*(February), 102576. https://doi.org/10.1016/j.ijedudev.2022.102576

Cornell, D., Shukla, K., & Konold, T. R. (2016). Authoritative school climate and student academic engagement, grades, and aspirations in middle and high schools. *AERA Open*, *2*(2), 233285841663318. https://doi.org/10.1177/2332858416633184

Craig, W., Harel-Fisch, Y., Fogel-Grinvald, H., Dostaler, S., Hetland, J., Simons-Morton, B., Molcho, M., Matos, M., Overpeck, M., Due, P., & Pickett, W. (2009). A cross-national profile of bullying and victimization among adolescents in 40 countries. *International Journal of Public Health*, *54*(Suppl 2), 216–224. https://doi.org/10.1007/s00038-009-5413-9

Espelage, D. L., & Holt, M. K. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. *Journal of Emotional Abuse*, *2*(2–3), 123–142. https://doi.org/10.1300/J135v02n02_08

Espinoza, O., González, L. E., McGinn, N., & Castillo, D. (2020). What factors predict the engagement of dropouts in alternative secondary schools in Chile?. *Improving Schools*, *23*(1), 47–67. https://doi.org/10.1177/1365480219864835

Finn, J., & Zimmer, K. (2012). Student engagement: What is it? Why does it matter? In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 21–44). Springer.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, *74*(1), 59–109. https://doi.org/10.3102/00346543074001059

Fredricks, J., Reschly, A., & Christenson, S. (2019a). Interventions for student engagement: Overview and state of the field. In A. R. Fredricks & S. Christenson (Eds.), *Handbook of student engagement interventions. Working with disengaged students* (pp. 1–11). Academic Press.

Fredricks, J., Reschly, A., & Christenson, S. (2019b). Conclusion: Status of student engagement interventions. In A. R. Fredricks & S. Christenson (Eds.), *Handbook of student engagement interventions. Working with disengaged students* (pp. 375–389). Academic Press.

Gini, G., & Pozzoli, T. (2013). Bullied children and psychosomatic problems: A meta- analysis. *Pediatrics*, *132*(4), 720–729. https://doi.org/10.1542/peds.2013-0614

Green, J., Holt, M., Oblath, R., & Furlong, M. (2019). Bullying and bystander behaviors. In A. R. Fredricks & S. Christenson (Eds.), *Handbook of student engagement interventions. Working with disengaged students* (pp. 217–230). Elsevier.

Gregory, A., & Skiba, R. J. (2019). Reducing suspension and increasing equity through supportive and engaging schools. In J. Fredricks, A. L. Reschly, & S. L. Christenson (Eds.), *Handbook of student engagement interventions: Working with disengaged students* (pp. 121–134). Elsevier.

Hambleton, R., Merenda, P., & Spielberger, C. (2004). *Adapting educational and psychological tests for cross-cultural assessment*. Erlbaum.

Heerde, J. A., & Hemphill, S. A. (2019). Are bullying perpetration and victimization associated with adolescent deliberate self-harm? A meta-analysis. *Archives of Suicide Research*, *23*(3), 353–381. https://doi.org/10.1080/13811118.2018.1472690

Herrera-López, M., Romera, E. M., & Ortega-Ruiz, R. (2018). Bullying y cyberbullying en Latinoamérica. *Revista Mexicana de Investigación Educativa*, *23*(76), 125–155.

Holt, M. K., Vivolo-Kantor, A. M., Polanin, J. R., Holland, K. M., DeGue, S., Matjasko, J. L., Wolfe, M., & Reid, G. (2015). Bullying and suicidal ideation and behaviors: A meta-analysis. *Pediatrics*, *135*(2), e496–e509. https://doi.org/10.1542/peds.2014-1864

Hox, J. J., Moerbeek, M., & van de Schoot, R. (2018). *Multilevel analysis: Techniques and applications* (3rd ed.). Routledge.
Instituto Nacional de la Juventud. (2019). 9na Encuesta Nacional de Juventud 2018. http:// www. injuv. gob. cl/ stora ge/ docs/9% C2% B0_Encue sta_ Nacio nal_ de_ Juven tud_ 2018. pdf
Juvonen, J., Espinoza, G., & Knifsend, C. (2012). The role of peer relationships in student academic and extracurricular engagement. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 387–401). Springer.
Lai, M. H. C., & Kwok, O. (2015). Examining the rule of thumb of not using multilevel modeling: The "design effect smaller than two" rule. *The Journal of Experimental Education*, *83*(3), 423–438. https://doi.org/10.1080/00220973.2014.907229
Laith, R., & Vaillancourt, T. (2022). The temporal sequence of bullying victimization, academic achievement, and school attendance: A review of the literature. *Aggression and Violent Behavior*, *64*(January), 101722. https://doi.org/10.1016/j.avb.2022.101722
Lam, S., Law, W., Chan, C.-K., Wong, B. P. H., & Zhang, X. (2015). A latent class growth analysis of school bullying and its social context: The self-determination theory perspective. *School Psychology Quarterly*, *30*(1), 75–90. https://doi.org/10.1037/spq0000067
Lawson, M. A., & Masyn, K. E. (2015). Analyzing profiles, predictors, and consequences of student engagement dispositions. *Journal of School Psychology*, *53*(1), 63–86. https://doi.org/10.1016/j.jsp.2014.11.004
Li, Y., Lynch, A. D., Kalvin, C., Liu, J., & Lerner, R. M. (2011). Peer relationships as a context for the development of school engagement during early adolescence. *International Journal of Behavioral Development*, *35*(4), 329–342. https://doi.org/10.1177/0165025411402578
Lovelace, M. D., Reschly, A. L., & Appleton, J. J. (2017). Beyond school records: The value of cognitive and affective engagement in predicting dropout and on-time graduation. *Professional School Counseling*, *21*(1), 70–84. https://doi.org/10.5330/1096-2409-21.1.70
Low, S., & Van Ryzin, M. (2014). The moderating effects of school climate on bullying prevention efforts. *School Psychology Quarterly*, *29*(3), 306–319.https://doi.org/10.1037/spq0000073
Mehta, S. B., Cornell, D., Fan, X., & Gregory, A. (2013). Bullying climate and school engagement in ninth-grade students. *Journal of School Health*, *83*(1), 45–52. https://doi.org/10.1111/j.1746-1561.2012.00746.x
MINEDUC. (2019). *Estadísticas de la Educación 2018*. https://centroestudios.mineduc.cl/wp-content/uploads/sites/100/2019/11/ANUARIO-2018-PDF-WEB-FINALr.pdf
Ministerio del Interior. (2014). *Cuarta encuesta nacional de violencia en el ámbito escolar 2014*. http://www.seguridadpublica.gov.cl/media/2016/11/Presentaci%C3%B3n-ENVAE.pdf
Mizala, A., & Torche, F. (2012). Bringing the schools back in: The stratification of educational achievement in the Chilean voucher system. *International Journal of Educational Development*, *32*(1), 132–144. https://doi.org/10.1016/j.ijedudev.2010.09.004
Moore, S. E., Norman, R. E., Suetani, S., Thomas, H. J., Sly, P. D., & Scott, J. G. (2017). Consequences of bullying victimization in childhood and adolescence: A systematic review and meta-analysis. *World Journal of Psychiatry*, *7*(1), 60–76. https://doi.org/10.5498/wjp.v7.i1.60
Nakagawa, S., Schielzeth, H., & O'Hara, R. B. (2013). A general and simple method for obtaining R2 from generalized linear mixed-effects models. *Methods in Ecology and Evolution*, *4*(2), 133–142. https://doi.org/10.1111/j.2041-210x.2012.00261.x
Nakamoto, J., & Schwartz, D. (2010). Is peer victimization associated with academic achievement? A meta-analytic review. *Social Development*, *19*(2), 221–242. https://doi.org/10.1111/j.1467-9507.2009.00539.x
National Center for Education Statistics (2019). Student reports of bullying: Results from the 2017 School Crime Supplement to the National Crime Victimization Survey. U.S. Department of Education. https://nces.ed.gov/pubs2019/2019054.pdf
National Research Council and the Institute of Medicine. (2004). Engaging schools: Fostering high school students' motivation to learn. Committee on increasing high school students' engagement and motivation to learn. *Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education*. The National Academies Press.
OECD. (2020). *Education at a Glance: OECD Indicators 2015*. Author. https://doi.org/10.1787/69096873-en
Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Blackwell Publishers.
Pietarinen, J., Soini, T., & Pyhältö, K. (2014). Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *International Journal of Educational Research*, *67*, 40–51. https://doi.org/10.1016/j.ijer.2014.05.001
Reschly, A., ., ., Christenson, C., & Appleton, J. (2017). Engaging adolescents in secondary school. In B. Schultz, J. Harrison, & S. Evans (Eds.), *School mental health services for adolescents* (pp. 45–77). Oxford University Press.
Reschly, A. L., & Christenson, S. L. (2019a). The intersection of student engagement and families: A critical connection for achievement and life outcomes. In J. Fredricks, A. L. Reschly, and S. L. Christenson (Eds.), *Handbook of Student Engagement Interventions: Working with Disengaged Youth*. Elsevier.

Reschly, A. L., & Christenson, S. L. (2019b, September). *Lowering the high school dropout rate: Lessons from the research (PDK Primer #2)*. Phi Delta Kappa.

Reschly, A. L. (2020). Dropout prevention and student engagement. In A. L. Reschly, A. Pohl, & S. L. C. (Eds.), *Student Engagement: Effective Academic, Behavioral, Cognitive, and Affective Interventions at School* (pp. 31–54). Springer.

Ripski, M. B., & Gregory, A. (2009). Unfair, unsafe, and unwelcome: Do high school students' perceptions of unfairness, hostility, and victimization in school predict engagement and achievement? *Journal of School Violence*, *8*(4), 355–375. https://doi.org/10.1080/15388220903132755

Román, M. (2013). Factores asociados al abandono y la deserción escolar en América Latina: Una mirada en conjunto. *Revista Iberoamericana Sobre Calidad, Eficacia Y Cambio En Educación*, *11*(2), 33–59.

Ryan, A. M., North, E. A., & Ferguson, S. (2019). Peers and engagement. In J. Fredricks, A. L. Reschly, & S. L. Christenson (Eds.), *Handbook of student engagement interventions: Working with disengaged students* (pp. 73–86). Elsevier.

Schoeler, T., Duncan, L., Cecil, C. M., Ploubidis, G. B., & Pingault, J.-B. (2018). Quasi- experimental evidence on short- and long-term consequences of bullying victimization: A meta-analysis. *Psychological Bulletin*, *144*(12), 1229–1246. https://doi.org/10.1037/bul0000171

Thapa, A., Cohen, J., Guffey, S., & Higgins D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research*, *83*(3), 357–385. https://doi.org/10.3102/0034654313483907

Totura, C. M. W., Karver, M. S., & Gesten, E. L. (2014). Psychological distress and student engagement as mediators of the relationship between peer victimization and achievement in middle school youth. *Journal of Youth and Adolescence*, *43*(1), 40–52. https://doi.org/10.1007/s10964-013-9918-4

Trizano-Hermosilla, I., & Alvarado, J. M. (2016). Best Alternatives to cronbach's alpha reliability in realistic conditions: Congeneric and asymmetrical measurements. *Frontiers in Psychology*, *7*, 769. https://doi.org/10.3389/fpsyg.2016.00769

Ttofi, M. M., Farrington, D. P., & Lösel, F. (2012). School bullying as a predictor of violence later in life: A systematic review and meta-analysis of prospective longitudinal studies. *Aggression and Violent Behavior*, *17*(5), 405–418. https://doi.org/10.1016/j.avb.2012.05.002

van Geel, M. V., Tanilon, J., & Tanilon, J. (2104). Relationship between peer victimization, cyberbullying, and suicide in children and adolescents: A meta-analysis. *JAMA Pediatrics*, *168*(5), 435–442. https://doi.org/10.1001/jamapediatrics.2013.4143

Varela, J. J., Sirlopú, D., Author, R., Espelage, D., Green, J., & Guzmán, J. (2019). Exploring the influence school climate on the relationship between school violence and adolescent subjective well-being. *Child Indicators Research*, *12*(6), 2095–2110. https://doi.org/10.1007/s12187-019-09631-9

Wang, M.-T., & Degol, J. S. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review*, *28*(2), 315–352. https://doi.org/10.1007/s10648-015-9319-1

Wang, M.-T., Degol, J. L., & Henry, D. A. (2019). An integrative development-in- sociocultural-context model for children's engagement in learning. *American Psychologist*, *74*(9), 1086–1102. https://doi.org/10.1037/amp0000522

Yang, C., Sharkey, J. D., Reed, L. A., Chen, C., & Dowdy, E. (2018). Bullying victimization and student engagement in elementary, middle, and high schools: Moderating role of school climate. *School Psychology Quarterly*, *33*(1), 54–64. http://dx.doi.org/10.1037/spq0000250