Revista de Psicodidáctica 30 (2025) 500168

Revista de Psicodidáctica

www.elsevier.es/psicod

Original

Bullying victimization and bystander behavior in bullying: Examining the mediating roles of social anxiety and social-emotional competence

Ruoxin Gao [a,b] and Xiaowei Chu [a,b,*]

[a] Zhejiang Philosophy and Social Science Laboratory for the Mental Health and Crisis Intervention of Children and Adolescents, School of Psychology, Zhejiang Normal University, Jinhua, 321004, China
[b] Zhejiang Key Laboratory of Intelligent Education Technology and Application, Zhejiang Normal University, Jinhua, 321004, China

ARTICLE INFO

Article history:
Received 6 November 2024
Accepted 16 April 2025
Available online 30 April 2025

Keywords:
Bullying victimization
Bystander behavior
Social anxiety
Social-emotional competence
Gender differences

ABSTRACT

Bullying victimization has been widely recognized as a robust predictor of adverse psychosocial outcomes, yet the relationship between bullying victimization to bystanders' behaviors toward bullying incidents remains poorly understood. Besides, the mediating roles of emotional-cognitive factors such as social anxiety and social-emotional competence in shaping these dynamics have not been systematically examined through a longitudinal lens. The present study investigated the bidirectional relationships between bullying victimization and three types of bystander behaviors (i.e., defending, passive bystanding, and pro-bullying), with a focus on the chain-mediating roles of social anxiety and social-emotional competence. A longitudinal survey was conducted across three waves with six-month intervals, involving 1,022 Chinese adolescents (52.1% female; M_{age} = 14.69, SD_{age} = 1.15). Results indicated that bullying victimization unidirectionally and longitudinally predicted bystanders' pro-bullying behavior. Social anxiety and social-emotional competence independently mediated the cross-sectional relationship between bullying victimization and bystander behavior in bullying. These findings advance theoretical understanding of the emotional-cognitive mechanisms underlying the dynamics between bullying victimization and bystander behavior, providing valuable insights for developing targeted interventions to break the vicious cycle of their influence.

La victimización por acoso escolar y el comportamiento del espectador ante el acoso: estudio del papel mediador de la ansiedad social y la competencia socioemocional

Palabras clave:
Victimización por acoso escolar
Comportamiento del espectador
Ansiedad social
Competencia socioemocional
Diferencias de género

RESUMEN

La victimización por acoso escolar está ampliamente reconocida como un indicador sólido de efectos psicosociales adversos. Sin embargo, aún sigue sin conocerse bien la relación entre la victimización por acoso escolar y el comportamiento del espectador ante los casos de acoso escolar. Además, el papel mediador que factores cognitivo-emocionales como la ansiedad social y la competencia socioemocional desempeñan en la configuración de estas dinámicas no ha sido estudiado de manera sistemática desde una perspectiva longitudinal. El presente estudio analiza las relaciones bidireccionales entre la victimización por acoso escolar y tres tipos de comportamiento del espectador (a saber, defensa, observación pasiva y apoyo al acoso), centrándose en el papel mediador en cadena de la ansiedad social y la competencia socioemocional. Se ha realizado una encuesta longitudinal en tres momentos, con intervalos de seis meses, y en la que han participado 1.022 adolescentes chinos (52.1% mujeres; edad media = 14.69 años, desviación estándar = 1.15). Los resultados indican que la victimización por acoso escolar predice

DOI of original article: https://doi.org/10.1016/j.psicod.2025.500168
* Corresponding author at: No. 688, Yingbin Avenue, Wucheng District, Jinhua, Zhejiang Province, China.
E-mail address: chuqxw@zjnu.edu.cn (X. Chu).

https://doi.org/10.1016/j.psicoe.2025.500168

unidireccional y longitudinalmente el comportamiento de apoyo al acoso del espectador. La ansiedad social y la competencia socioemocional han mediado de forma independiente en la relación transversal entre la victimización por acoso escolar y el comportamiento del espectador ante el acoso. Estos hallazgos permiten comprender mejor —desde una perspectiva teórica— los mecanismos cognitivo-emocionales que subyacen a la dinámica entre la victimización por acoso escolar y el comportamiento del espectador ante los casos de acoso. Además, proporcionan información valiosa para desarrollar intervenciones específicas dirigidas a romper el círculo vicioso de su influencia.

Introduction

Bullying, defined as repeated aggressive behavior involving a power imbalance between the perpetrator and the victim (Nickerson et al., 2023), has emerged as a significant public health concern worldwide. Globally, 32% of adolescents report experiencing traditional bullying victimization, with rates exceeding 40% in some Asian contexts (UNESCO, 2019). Bullying victimization has serious and long-lasting effects on individuals, such as depressive symptoms and behavioral problems (Moore et al., 2017). How to effectively prevent bullying victimization has been a topic of interest for researchers. Research has shown that bullying victimization can be effectively prevented through bystander behavior (Ye et al., 2022). Positive bystander behaviors (e.g., stopping bullying) may inhibit the spread of bullying victimization (Krauss et al., 2021). Negative bystander behaviors (e.g., supporting bullying) may exacerbate bullying victimization. Inversely, bullying victimization experiences may also predict an individual's behavioral choice (i.e., bystander behavior) in bullying. For example, bullying victimization can lead individuals to be more inclined to stand by (Jiang et al., 2022), support bullying (Troop-Gordon et al., 2019), or help others (Ma et al., 2019).

Previous research had indicated bidirectional relationships between bullying victimization and perpetration (Walters, 2020), but few studies have examined the bidirectional links between bullying victimization and bystander behavior, along with their underlying mechanisms. This study investigated these longitudinal relationships and explored social anxiety and social-emotional competence as potential mechanisms. In addition, this study was to explore gender differences in relationships among research variables. This may provide ideas for interrupting the vicious cycle between bullying victimization and negative bystander behavior, as well as enhancing the benign effects of bullying victimization on positive bystander behavior.

Bullying victimization and bystander behavior in bullying

Previous research has shown mixed findings about the predictive effect of bullying victimization on bystander behavior in bullying. On the one hand, in a general sense, people may take "an eye for an eye, a tooth for a tooth". Adolescence is a period of high prevalence of bullying in schools, and experiencing this negative event depletes adolescents' psychological resources and is not conducive to the development of pro-social behaviors (Lian et al., 2022). Bullying victimization decreases an individual's pro-social motivation (Jungert et al., 2021), and also leads individuals to develop aggressive behavioral styles (e.g., retaliation) (Kelly et al., 2015; Marlow et al., 2023). It has been suggested that bullying victimization is associated with an increase in passive bystander behavior (Huang et al., 2016). Bullying victims were more likely to engage in outsider behaviors and pro-bullying behavior when witnessing a bullying situation (Jiang et al., 2022). Overall, bullying victimization may positively predict bystanders' negative behavior (e.g., pro-bullying and passive bystanding).

On the other hand, people may "repay evil with kindness". Some studies have suggested that bullying victimization increases an individual's pro-social motivation (Lian et al., 2022). According to Vollhardt's (2009) model of "altruism born out of pain," individuals may increase their motivation to help others after experiencing a traumatic event. Bullying victimization, which can be viewed as repetitive interpersonal trauma (Idsoe et al., 2021), may also promote pro-social behaviors in victims. For example, individuals who have suffered from bullying victimization were more able to protect the victim (Ma et al., 2019). This may be because of the arousal of empathy to the person who has the same experience: "I understand how bad to the person who is experiencing the pain" (Zhao et al., 2023). This study tends to resolve this conflicting result. Research showed that the incidence of bullying behavior heightens in early adolescence, particularly in middle school (Wang et al., 2009). At the same time, because aggressive behavior has become more acceptable and associated with higher social status, students are less likely to help bullied classmates (Batanova et al., 2014). Therefore, the present study is more inclined to suggest that bullying victimization positively predicts pro-bullying and passive bystanding in adolescents.

In addition, bystander behavior may also predict the emergence of bullying victimization. Studies have found that some positive bystander behavior (e.g., stopping violence) makes bystanders become victims of violence and threats (Krauss et al., 2021). Besides, bystanders who witness bullying and do not intervene are at a higher risk of becoming victims (Rosander & Nielsen, 2023). While there is no direct evidence that assisting in bullying leads to being bullied, youth who exhibit aggression are often more likely excluded by groups (McDonald, 2019). Conversely, individuals who engage in prosocial behaviors are more likely to be accepted by peers (Oberle et al., 2023), which may lead to less bullying victimization. According to the concept of the Cycle of Violence (Widom, 1989) and Social Cognitive Theory (Bandura, 1986), exposure to aggressive behavior is more likely to motivate victims to act aggressively, even as bystanders.

Social anxiety as a mediator

Social anxiety is an individual's anxiety due to failure to meet expectations in social roles and behaviors during the socialization process (Rapee & Heimberg, 1997). First, bullying victimization is a risk factor for social anxiety (Wu et al., 2021). Children who are bullied are at increased risk for internalizing problems, such as social anxiety (Reijntjes et al., 2010). Research has shown that children who are bullied tend to report social anxiety (Pontillo et al., 2019). In addition, social anxiety may be an important predictor of bystander behavior in bullying. It has been shown that social anxiety is associated with bullying bystanders' conformity behavior (Takami & Haruno, 2019). The distress (e.g., threat and rejection) associated with bullying can overwhelm the victim's coping mechanisms (Pontillo et al., 2019), triggering anxiety and helplessness as well as withdrawal and social avoidance behaviors (Coelho & Romão, 2018). That is to say that the bullied person when witness-

ing bullying scenarios, develops more passive bystanding due to the fear of approaching these bullying threats again.

General Strain Theory (Agnew, 1992) posits that stressful stimuli (e.g., being bullied) lead to negative emotions (social anxiety), which can result in negative behaviors (e.g., passive bystanding) when dealing with problems. Although there is no direct research showing that social anxiety mediates the relationship between bullying victimization and bystander behavior in bullying. However, some studies have shown that social anxiety mediates between bullying victimization and PTSD (Li et al., 2023).

Social-emotional competence as a mediator

Social-emotional competence is a combined concept of emotional and social competence (Denham, 2006). Social-emotional competence is the ability to understand and manage emotions, set and achieve positive goals, empathize with others, build positive peer relationships, and make responsible decisions (CASEL, 2018). Social-emotional competence may also play a mediating role in the predictive effect of bullying victimization on bystander behavior in bullying. First, bullying victimization can harm one's social-emotional competence (Kokkinos & Kipritsi, 2012). Bystanders' engagement in bullying can lead to a decrease in social-emotional competence (Coelho & Marchante, 2021). Victims of bullying had lower levels of responsible decision-making and self-esteem than other students (Coelho & Sousa, 2021). Second, the level of social-emotional competence is also related to an individual's bystander behavior. Social awareness in social-emotional competence encompasses empathy (Coelho & Marchante, 2021), and individuals with low levels of empathy were more likely to support bullying than individuals with high levels of empathy (Troop-Gordon et al., 2019). High social-emotional competence tends to be associated with more pro-social related and lower problem behaviors (Collie, 2022).

According to the *Cognitive Appraisal Theory of Stress* (Lazarus & Folkman, 1984), bullying victimization impairs an individual's ability to cope, resulting in an inability to effectively manage and mitigate negative influences, and thus a greater likelihood of adopting negative coping strategies. Although previous research has not directly examined social-emotional competence as a mediating variable between bullying victimization and bystander behavior, one study found that social-emotional competence mediated the effects of group identity on an individual's posttraumatic growth (Ma et al., 2023).

Social anxiety and social-emotional competence

Some studies have found that social anxiety affects individuals' emotional competence and social competence (Kaeppler & Erath, 2017; Mathews et al., 2016). According to the *Cognitive Model of Social Anxiety* (Clark & Wells, 1995), during interpersonal interactions, socially anxious individuals are prone to irrational cognitions and negative evaluations of the self, detracting from their metacognitive beliefs self-reflection, and emotional regulation (Nordahl et al., 2018). This means that individuals with high social anxiety may affect the development of individual socio-emotional competence. In addition, individuals with high social anxiety may have more difficulty recognizing and expressing their emotions (Lacombe et al., 2023), which can affect the development of their ability to process emotions. Due to concerns about being judged by others, socially anxious individuals may not seek out social interactions (Ernst et al., 2024), thus limiting their opportunities to enhance their social-emotional competence in practice. Therefore, the present study suggested that social anxiety would negatively predict social-emotional competence.

There is no direct research suggesting that social anxiety and social-emotional competence play a serial mediating role between bullying victimization and bystander behavior in bullying. However, one study found that bullying victimization predicted problem behavior through interpersonal emotional competence and interpersonal social competence (Jiang & Shi, 2024). According to the *Social Relations Model* (Kenny, 1994), social anxiety has a significant effect on interpersonal perceptions.

Gender differences in mediating roles

In terms of the consequences of bullying for individuals, females were more susceptible to peer victimization than males, and the consequences were more severe (Carbone-Lopez et al., 2010; Lucas-Molina et al., 2018). For example, when bullied as victims and/or bystanders, girls were more likely to recognize the harms of bullying and experience more emotional distress, whereas boys were more likely to disengage from bullying (Thornberg & Jungert, 2013). Thus, the effects of bullying on social anxiety and social-emotional competence may differ for females and males. Additionally, bullying and other aggressive behaviors in male groups tend to be accepted and sanctioned by peer groups in early adolescence (Rodkin & Hodges, 2003), and thus boys may engage in more pro-bullying behaviors. The present study hypothesized that the entire model or some of the pathways may be different between boys and girls.

The present study

Previous research has rarely systematically investigated the mediating role of emotional and cognitive factors (e.g., social anxiety and socioemotional competence) in explaining the association between bullying victimization and bystander behavior. This study addressed this limitation by exploring two following issues. First, this study examined the bidirectional relationships between bullying victimization and bystander behavior in bullying through a longitudinal follow-up of Chinese adolescents. Second, this study investigated the mediating roles of social anxiety and social-emotional competence in the relationship between bullying victimization and bystander behavior, as well as potential gender differences. Based on the empirical and theoretical analyses above, the following hypotheses were proposed: First, there would be bidirectional relationships between bullying victimization and bystander behavior in bullying (Hypothesis 1). Second, social anxiety would mediate the relationship between bullying victimization and bystander behavior (Hypothesis 2). Third, social-emotional competence would mediate the relationship between bullying victimization and bystander behavior (Hypothesis 3). Finally, social anxiety and social-emotional competence would sequentially mediate the relationship between bullying victimization and bystander behavior (Hypothesis 4).

Method

Participants

The samples for this study were from a high school in Huainan, China, and a middle school in Yulin, China. Of the 1,394 students who agreed to participate, 1,276 took part in the initial measurement. Of these, 1,154 students (90.6%) completed the first and second measurements, while 1,022 students (79.55%) participated in all three measurements, forming the final sample. The student distribution across grade levels at Time 1 (T1) was as follows: Grade 7 comprised 365 students (35.7%), Grade 8 included 281 students (27.5%), Grade 10 accounted for 225 students (22.0%), and

Grade 11 represented 143 students (14.0%). Eight students (0.8%) did not report their grade level at T1. The sample consisted of 490 males (47.9%) and 532 females (52.1%). Participants' ages at T1 ranged from 10 to 18 years (M = 14.69, SD = 1.148). The mean educational level of fathers and mothers was 2.41 (SD = .885) and 2.28 (SD = .913), respectively. Household income distribution was as follows: 6.5% below 3,000 yuan, 31.5% between 3,000 and 6,000 yuan, 38.6% between 6,000 and 10,000 yuan, 19.9% between 10,000 and 20,000 yuan, and 3.5% above 20,000 yuan.

Measures

The Bully/Victim Questionnaire was developed by Olweus (1993) and translated and revised by Zhang et al. (1999). Participants rated six items on a 5-point scale. A sample item is "Other people give me unpleasant nicknames, call me names, or make fun of and satirize me". The six questions are categorized into three dimensions: *verbal bullying* (two items), *physical bullying* (two items), and *relational bullying* (two items). The scale demonstrated strong reliability and convergent validity across three time points. Cronbach's alpha was .85 (T1), .92 (T2), and .92 (T3). McDonald's Omega was .85 (T1), .92 (T2), and .92 (T3). Composite Reliability (CR) was .84 (T1), .92 (T2), and .92 (T3). Average Variance Extracted (AVE) was .63 (T1), .79 (T2), and .79 (T3).

The Social Anxiety Scale is based on the social anxiety subscale of the *Self-Consciousness Scale* developed by Fenigstein et al. (1975) and revised by Scheier and Carver (1985). Participants rated six items on a 4-point scale (Wang et al., 1999). A sample item is "I feel anxious when I speak in front of a group". The mean scores of all items were calculated, with higher scores indicating higher levels of *social anxiety*. The scale demonstrated strong reliability and convergent validity across three time points. Cronbach's alpha was .79 (T1), .80 (T2), and .81 (T3); McDonald's Omega was .81 (T1), .83 (T2), and .84 (T3). CR was .81 (T1), .83 (T2), and .82 (T3). AVE was .58 (T1), .63 (T2), and .61 (T3).

The Chinese version of the Delaware Social Emotional Competence Scale was developed by Mantz et al. (2018) and translated and revised by Zhu (2016). A total of 12 items are included, which are categorized into four dimensions, namely, *responsible decision-making* (three items), *peer relationships* (three items), *social awareness* (three items), and *self-management* (three items). A sample item is "I will consider the feelings of others". Participants rated each item on a 4-point scale. Higher scores indicate higher levels of *social-emotional competence*. The scale demonstrated strong reliability and convergent validity across three time points. Cronbach's alpha was .85 (T1), .92 (T2), and .93 (T3). McDonald's Omega was .85 (T1), .92 (T2), and .93 (T3). CR was .82 (T1), .91 (T2), and .92 (T3). AVE was .53 (T1), .72 (T2), and .74 (T3).

We used Jungert et al.'s (2016) *10-item self-report scale* which consists of three dimensions: *pro-bullying*, *passive bystanding*, and *defending*. The Chinese version of the scale was translated and revised by the authors of this study. The items include behaviors such as "I join in with the kids who call another kid nasty nicknames, threaten, hit or push him/her" (*pro-bullying*, four items), "If I know that someone is excluded or isolated from the group I act as if nothing has happened" (*passive bystanding*, three items), and "I go and tell a teacher if I see a kid being called nasty names, threatened, hit or pushed by other kids" (*defending*, three items). Participants rated each item on a 5-point scale. Cronbach's alpha was .71, .82, and .87 at T1-T3 for the *defending* subscale, .72, .79, and .85 at T1-T3 for the *passive bystanding* subscale, and .74, .88, and .93 at T1-T3 for the *pro-bullying* subscale. McDonald's Omega was .71, .82, and .87 at T1-T3 for the *defending* subscale, .72, .80, and .85 at T1-T3 for the *passive bystanding* subscale, and .74, .88, and .93 at T1-T3 for the *pro-bullying* subscale. CR was .72, .83, and .88 at T1-T3 for the *defending* subscale, .72, .79, and .85 at T1-T3 for the *passive bystanding* subscale, and, .75, .89, and .93 at T1-T3 for the *pro-bullying* subscale. AVE was .46, .62, and .71 at T1-T3 for the *defending* subscale, .47, .56, and .66 at T1-T3 for the *passive bystanding* subscale, and .43, .67, and .76 at T1-T3 for the *pro-bullying* subscale.

Control variables. The hypothesized model controlled for participants' gender, age, gross monthly household income, and parent's education level. These variables were filled in directly through a demographic questionnaire. Respondents were asked to select their father's and mother's educational level on a 5-point scale from 1 = *elementary school and below* to 5 = *graduate degree and above*. Gross monthly household income was also selected on a 5-point scale from 1 = *less than* 3,000 *yuan* to 5 = *more than 20,000 yuan*.

Procedure

This study was approved by the ethics committee of Zhejiang Normal University (No. ZSRT2024220). After obtaining informed consent from the school principals and the participants, a one-and-a-half-year longitudinal study was conducted in Yulin (Time 1: March 2023; Time 2: October 2023; Time 3: April 2024) and Huainan (Time 1: November 2022; Time 2: May 2023; Time 3: November 2023) at three-time points. Participants could withdraw from the study at any time, and the researcher ensured that their information would remain confidential. Students completed a paper-and-pencil questionnaire in Chinese, which took about one class period.

Data analysis

Descriptive and correlational analyses of the study variables were conducted using the SPSS 25.0 software package. Mplus 8.3 was employed for the Cross-Lagged Panel Model (CLPM) analysis. This study constructed three packages as indicators of each latent variable except for bullying victimization (represented by three subtypes) and pro-bullying and social-emotional competence (represented by four subtypes). Social anxiety was packaged using the item-structure balance packaging method. The present study used the robust maximum likelihood estimation method (MLR). Missing data were handled using the full information maximum likelihood estimator (FIML). We assessed fit using the comparative fit index (CFI) and the root mean square error of approximation (RMSEA) as model fit indices. A CFI value above .900 and an RMSEA value below .080 are considered acceptable fit criteria (Chen, 2007). In addition, we assessed the existence of differences in fit between models based on the change in ΔCFI above .010 and the change in ΔRMSEA above .015 (Chen, 2007).

Results

Descriptive and correlational analyses

Table 1 shows the means, standard deviations, and partial correlation coefficients of the study variables controlling for gender, age, parent's education level, and gross monthly household income. There were significant correlations between most of the study variables. For instance, results indicated that *bullying victimization* at T1 showed a significant positive correlation with *passive bystanding* and *pro-bullying* at T2, and a significant negative correlation with *defending* at T3. However, *bullying victimization* at T1 was not significantly correlated with *defending* at T2, *passive bystanding* at T3, and *pro-bullying* at T3. *Bullying victimization* at T2 was not significantly correlated with *defending*, *passive bystanding*, and *pro-bullying* at T3. There was no significant correlation between *bullying victimization* at T3 and *defending* at T3.

Table 1
Descriptive statistics and partial correlation coefficients of the research variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.T1 Bullying victimization																		
2.T1 Social anxiety	.025																	
3.T1 Social-emotional competence	−.168**	−.064																
4.T1 Defending	−.145**	−.072	.406**															
5.T1 Passive bystanding	.092*	.090*	−.221**	−.459**														
6.T1 Pro-bullying	.104**	.040	−.248**	−.265**	.434**													
7.T2 Bullying victimization	.227**	.056	−.025	−.027	−.026	.011												
8.T2 Social anxiety	.034	.412**	−.073	−.086*	.061	.032	.094*											
9.T2 Social-emotional competence	−.078*	−.051	.323**	.209**	−.133**	−.079*	−.080*	−.116**										
10.T2 Defending	−.002	−.079*	.140**	.282**	−.264**	−.185**	−.029	−.081*	.380**									
11.T2 Passive bystanding	.148**	.066	−.115**	−.211**	.222**	.148**	.191**	.159**	−.103**	−.159**								
12.T2 Pro-bullying	.160**	.020	−.073*	−.112**	.086*	.175**	.266**	.018	−.132**	−.055	.444**							
13.T3 Bullying victimization	.125**	.038	−.039	−.071	.032	.043	.193**	.083*	.002	.055	.089*	.102**						
14.T3 Social anxiety	.040	.198**	−.071	−.034	.005	.018	.104**	.300**	−.033	−.055	.059	.060	.113**					
15.T3 Social-emotional competence	−.031	−.076*	.186**	.148**	−.071	−.038	.029	−.113**	.196**	.103**	−.038	−.046	−.073	−.047				
16.T3 Defending	−.117**	−.035	.154**	.247**	−.203**	−.116**	.038	−.072	.204**	.241**	−.167**	−.061	−.015	−.053	.446**			
17.T3 Passive bystanding	.021	.107**	−.109**	−.165**	.169**	.116**	.014	.077*	−.140**	−.230**	.230**	.117**	.170**	.148**	−.149**	−.293**		
18.T3 Pro-bullying	.049	.046	−.072	−.129**	.067	.134**	.036	.068	−.056	−.074*	.123**	.133**	.225**	.036	−.167**	−.089*	.510**	
M	1.187	1.407	3.168	3.394	2.364	1.526	1.191	1.384	3.135	3.357	2.452	1.671	1.164	1.393	3.114	3.352	2.465	1.711
SD	.415	.744	.442	.862	.926	.666	.521	.725	.481	.875	.907	.871	.503	.693	.519	.946	.922	.917

Notes. T1 = Time 1, T2 = Time 2, T3 = Time 3.
* $p < .05$.
** $p < .01$.

Table 2
Measurement model tests of all latent variables across time

Models	Model fits						Model comparison		
	S-Bχ^2	*df*	CFI	TLI	RMSEA [90% CI]	SRMR	ΔCFI	ΔTLI	ΔRMSEA
Measurement times									
Time 1	488.604	155	.931	.915	.046 [.041, .051]	.043			
Time 2	509.432	155	.951	.941	.047 [.043, .052]	.041			
Time 3	522.396	155	.954	.943	.048 [.044, .053]	.037			
Measurement invariance									
Configural invariance	2824.584	1497	.950	.941	.029 [.028, .031]	.035			
Metric invariance	2887.862	1525	.949	.941	.030 [.028, .031]	.038	.001	.000	.001
Scalar invariance	3060.105	1553	.944	.936	.031 [.029, .032]	.039	.005	.005	.001
Error variance invariance	3701.421	1593	.921	.912	.036 [.034, .038]	.045	.023	.024	.005

Note. Configural invariance = Testing for cross-group equivalence in the form or structure of latent variables; Metric invariance = Testing for the cross-group equivalence of factor loading; Scalar invariance = Testing for the cross-group equivalence of intercepts of observed variables; Error variance invariance = Testing for the cross-group equivalence of error/residual variances.

Measurement invariance

To ensure the feasibility of the modeling, we first tested the measurement model. As shown in Table 2, the measurement model was adequately fitted at all three-time points. A longitudinal measurement invariance test was also conducted, and the results revealed a scalar invariance (ΔCFI < 0.01, ΔRMSEA < 0.015).

Bidirectional relationship analysis between bullying victimization and bystander behavior

A cross-lagged model was developed to explore whether there was bidirectional relationship between *bullying victimization* and *bystander behavior in bullying*. To obtain robust estimates, we conducted tests of time invariance on all cross-lagged paths, stability paths, and correlation changes (i.e., residual correlations of research variables at T2 and T3) to enhance the parsimony of the CLPM model. As shown in Table 3, after controlling for covariates (age, gender, parent's education level, and gross monthly household income), the simplest model (Model 5) did not fit significantly worse than the unconstrained model (Model 1). Therefore, we fixed the cross-lagged path, the stability path, and the T2-T3 correlated changes to be time-invariant. Figure 1 shows the final model including all significant predictive paths. For clarity, measurement details, control variables, residual errors, and insignificant paths are not shown. In this figure, the autoregressive paths of all research variables were significantly positive. In the cross-lagged paths, *bullying victimization* at T1 and T2 was significantly and positively correlated with *pro-bullying* at T2 and T3, respectively, but showed no association with other bystander behaviors. Besides, all the types of *bystander behavior in bullying* failed to correlate with *bullying victimization*. These results suggest a unidirectional relationship between *bullying victimization* and *bystander behavior in bullying*.

Chain mediation analysis of social anxiety and social-emotional competence

Based on the above results, the mediating roles of *social anxiety* and *social-emotional competence* were examined in a structural model that posited the unidirectional effect of *bullying victimization* on *bystander behavior in bullying*. After controlling for covariates, the fit indices for the initial structural model were acceptable (S-Bχ^2/df = 2.414, p < .001, RMSEA = .037, CFI = .909, TLI = .901, SRMR = .062). The fit indices of the final simplified model were also acceptable after removing all non-significant paths (S-Bχ^2/df = 2.430, p < .001, RMSEA = .037, CFI = .909, TLI = .903, SRMR = .067). There was no difference in model fit indices between the initial and simplified models (ΔCFI = .000, ΔTLI = .002, ΔRMSEA = .000). A schematic of the final model is shown in Figure 2 (measurement details and residual errors are not shown for clarity). Results indicated that *bullying victimization* at T1 was positively associated with *defending*, *passive bystanding*, and *pro-bullying* at T1 via *social-emotional competence* at T1 (*Estimate* = −.191, p = .002; *Estimate* = .115, p = .002; *Estimate* = .064, p = .003). At T3, *bullying victimization* was positively associated with *passive bystanding* through *social anxiety* (*Estimate* = .036, p = .006). The mediation effect of *bullying victimization* at T1 on *defending* at T2 through *social-emotional competence* at T1 was not significant (*Estimate* = .054, p = .075). The mediation effect of *bullying victimization* on *passive bystanding* at T2 through *social anxiety* was not significant (*Estimate* = .016, p = .077).

Comparing modeling differences across gender groups

This study used a multi-group analysis to test whether there were differences between the models for the boys' and girls' groups. First, the baseline models for boys and girls were developed in this study. The fit indices for both the boys' and girls' baseline models were acceptable (S-Bχ^2/df = 1.713, p < .001, RMSEA = .038, CFI = .910, TLI = .904, SRMR = .073; S-Bχ^2/df = 1.698, p < .001, RMSEA = .036, CFI = .909, TLI = .902, SRMR = .062). Different paths in the boys' and girls' baseline models were revealed. Specifically, *bullying victimization* at T1 was negatively correlated with *social-emotional competence* at T1 only for boys. In addition, *bullying victimization* only positively correlated with *passive bystanding* and *pro-bullying* for boys, whereas *bullying victimization* only negatively correlated with defending for girls. The fit index of the combined unconstrained model was then acceptable in the gender-based multigroup analysis (S-Bχ^2/df = 1.724, p < .001, RMSEA = .038, CFI = .905, TLI = .901, SRMR = .069). There are two steps to test whether the model is equal across genders. The first step was to set the path coefficients equal and assess invariance by comparing the indices of the restricted and unrestricted models (ΔCFI = .000, ΔTLI = .002, ΔRMSEA = -.001). The second step was to set the indirect effects equal and assess invariance by comparing the indices of the restricted and unrestricted models (ΔCFI = .000, ΔTLI = .000, ΔRMSEA = .001). The results showed no significant differences between the structural models for boys and girls.

Discussion

This study explored the bidirectional relationships between bullying victimization and bystander behavior in bullying and the mechanisms underlying these relationships. The results of the study showed that there was no bidirectional relationships between bullying victimization and bystander behavior in bullying. It was found that at the first time point, social-emotional competence mediated the relationship between bullying victimization and bystander behavior in bullying. At the third time point, bullying

Table 3
Model fits and comparisons

Models	Model fits							Model comparison		
	X^2	*df*	CFI	TLI	SRMR	RMSEA [90% CI]		ΔTLI	ΔCFI	ΔRMSEA
Model 1	1753.870	716	.933	.923	.041	.038 [.035, .040]				
Model 2	1764.943	720	.933	.923	.043	.038 [.035, .040]	2 vs. 1	.000	.000	.000
Model 3	1766.378	728	.934	.925	.044	.037 [.035, .040]	3 vs.1	.002	.001	.001
Model 4	1748.723	722	.935	.926	.042	.037 [.035, .040]	4 vs. 1	.003	.002	.001
Model 5	1770.252	738	.934	.928	.046	.037 [.035, .039]	5 vs. 1	.005	.001	.001

Notes. Model 1 = unconstrained baseline model; Model 2 = model with all stability paths fixed to be time-invariant; Model 3 = model with all cross-lagged paths fixed to be time-invariant; Model 4 = model with all T2–T3 correlated changes fixed to be time-invariant; Model 5 = model with all cross-lagged paths, all stability paths, and all T2–T3 correlated changes fixed to be time-invariant.

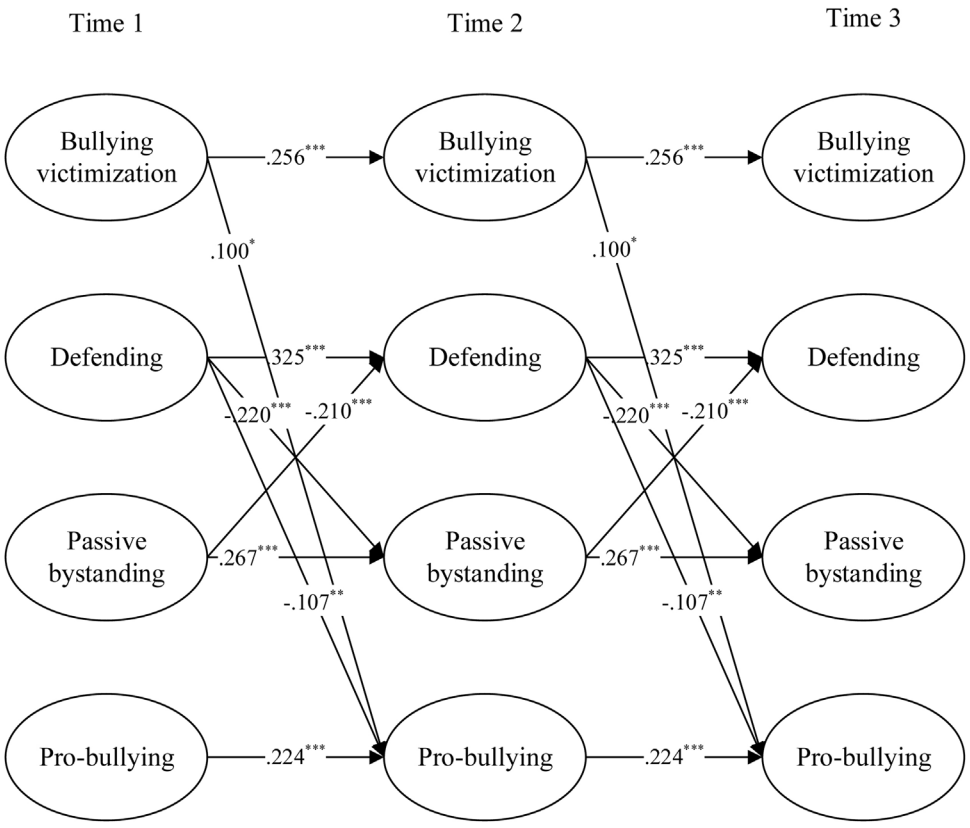

Figure 1. The numbers in the figure reflect unstandardized path coefficients in the final model. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

victimization positively correlated with passive bystander behavior through social anxiety. There was also no significant difference between the male and female groups. The results of this study have theoretical and practical implications for reducing the vicious effects of adolescent bullying victimization on bystander behavior in bullying.

Bullying victimization and bystander behavior in bullying

The present study found that bullying victimization only positively correlated with pro-bullying. This result partially supports Hypothesis 1. This result is consistent with previous findings that bullying victimization was associated with more supportive bullying behaviors (Troop-Gordon et al., 2019). This may be related to the adolescents' pursuit of social goals (Ettekal et al., 2015; Meter & Card, 2015). Individuals who experience high levels of victimization when witnessing bullying may be focused on the goal of self-protection (Meter & Card, 2015; Thornberg et al., 2012), and may view pro-bullying as a means of preventing being a target of bullying. The present study revealed no significant longitudinal associations between bullying victimization and subsequent defending or passive bystanding. This may be because the present study analyzed all three bystander behaviors in bullying in a cross-lagged model. This may have weakened the link between bullying victimization and the other two bystander behaviors (i.e., defending and passive bystanding).

The findings do not support that bullying victimization is correlated with more positive bystander behaviors and fewer negative bystander behaviors. This differs from previous research (Ma et al., 2019). While bullied individuals may have a better ability to understand the victimization of others than other uninvolved individuals, there may not be a higher motivation to help others. One study reported no difference in empathy between victims and non-victims, but victims of bullying had lower levels of empathy than their non-participating peers (van Noorden et al., 2017). This finding is important because it suggests a difference between motivation and ability. For those with a past of peer victimization, the expected cost of defense may be the continuation or even expansion of peer bullying (Huitsing et al., 2014). Higher costs can lead to decreased motivation to help. Thus, when witnessing bullying,

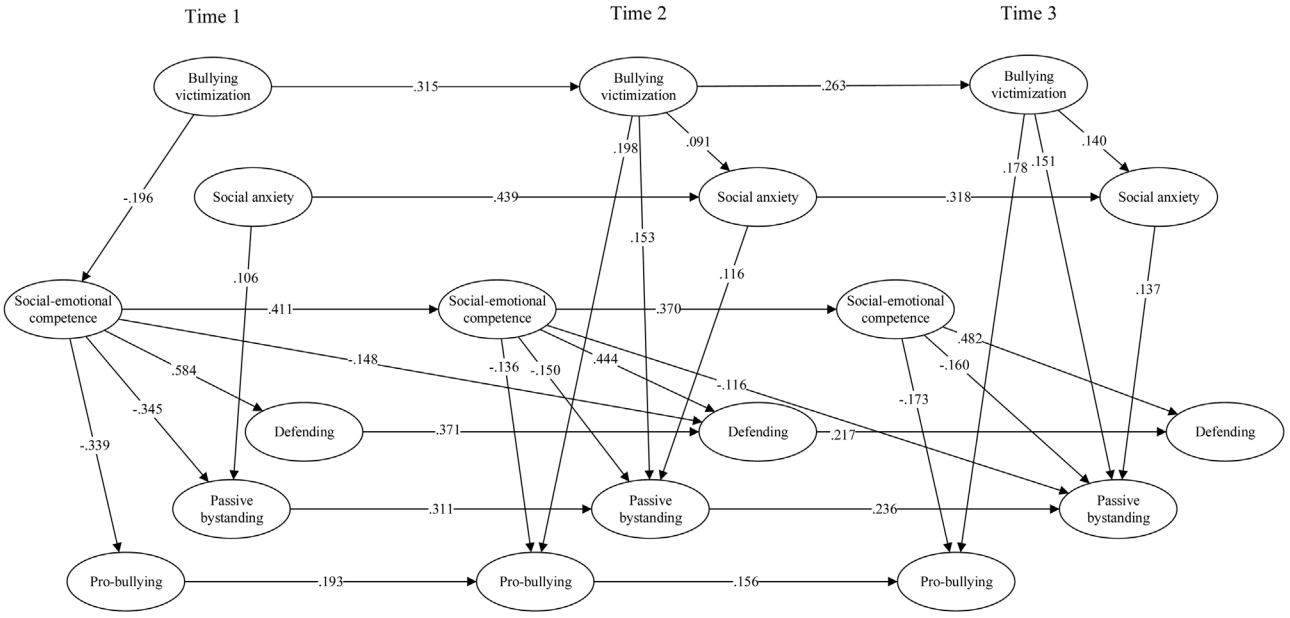

Figure 2. Bystander behavior in bullying significant path coefficients in the final model. *Note*. Figures represent standardized path coefficients ($p < .05$).

even though one understands the victim's pain, one is more likely to act pro-bullying or passive bystanding to reduce one's own risk of continued victimization.

The cross-lagged analysis results indicated no significant longitudinal associations between bystander behavior and bullying victimization, contradicting Hypothesis 1. This may be due to the study's time interval, as bystander behavior from six months prior may not be sufficient to influence bullying victimization six months later. Additionally, the self-assessment questionnaire may reflect only an individual's behavioral intentions, which do not always translate into actual behavior. Victimization was associated with behavioral intentions, but these intentions do not necessarily predict actual behavior nor were they consistently linked to contextual factors correlated with bullying victimization.

Mediating roles of social anxiety and social-emotional competence

The results of this study indicated a significant cross-sectional mediating effect of social anxiety between bullying victimization and passive bystanding. This result partially supports Hypothesis 2. This result is consistent with some previous research that has shown that higher levels of social anxiety in adolescents are associated with a greater likelihood of avoidance behaviors (Erath et al., 2007). Additionally, the results of this study suggest that social-emotional competence plays a cross-sectional mediating role between bullying victimization and bystander behavior in bullying. This result partially supports Hypothesis 3. This can be explained from the perspective of the *Cognitive Appraisal Theory of Stress* (Lazarus & Folkman, 1984). On the one hand, in terms of the evaluation process of stress coping, it raises the threshold of perceived stress in response to negative life events (e.g., bullying victimization) and alleviates initial anxiety when assessing such events. During secondary assessment, this ability can serve as a positive coping resource (Nickerson et al., 2019), enabling individuals to effectively manage stress and break the negative cycle associated with bullying. On the other hand, social-emotional competence directly empowers the bullied individual with the resources and abilities to address bullying (Yang et al., 2020), thus stopping the victimization from bringing further harm.

In addition, the findings suggest that social anxiety and social-emotional competence do not have a serial mediating role between bullying victimization and bystander behavior in bullying. This does not support Hypothesis 4. The reason may be that social anxiety may be associated with some aspects of social-emotional competence, but not absolutely. It is also possible that the relationship between the two variables is influenced by other factors, such as social support (Kang et al., 2022; Scanlon et al., 2020).

Gender difference

The results indicated that the overall hypothesized model did not differ by gender. One possible reason for this is that although bullying victimization may cause different harm to boys and girls, it has a consistent effect on their social anxiety. On the one hand, more experiences of peer victimization cause boys to experience more emotional problems (Carbone-Lopez et al., 2010; Félix et al., 2011). On the other hand, girls are more sensitive to interpersonal risk factors (Paquette & Underwood, 1999) and may also experience higher levels of emotional problems. Thus, boys and girls who are victimized by their peers will report similar levels of social anxiety. In addition, there are differences in the effects of bullying victimization on bystander behaviors for boys and girls, such that boys are more likely to use negative bystander behaviors (i.e., passive bystanding and pro-bullying), whereas girls are more likely to use positive bystander behaviors (i.e., defending). These differences may be related to the fact that male adolescents are more aggressive (Smith et al., 2019).

The specific predictive paths between some of the study variables differed between boys and girls. Only in the boys' model did bullying have a significant negative predictive effect on social-emotional competence. This may be because boys are less likely to seek help from outside sources when they are bullied compared to girls (Hunter et al., 2004; Unnever & Cornell, 2004). Boys receive less social support compared to girls and are more likely to affect social-emotional competence. In addition, boys' bullying victimization would only positively predict outsider and assisting behaviors, whereas girls' bullying victimization would only negatively predict defensive behaviors. This may be because boys are associated with more moral disengagement than girls (e.g., Pouwels et al., 2016;

Thornberg & Jungert, 2013). Boys prioritize competition over relational harmony in social interactions (Rose & Rudolph, 2006). As a result, boys may develop negative bystander behaviors after being bullied. Girls' less aggression compared to males (Björkqvist, 2018) may result in only a decrease in positive bystander behaviors and not an increase in negative bystander behaviors after being bullied. These cognitive and behavioral differences between male and female adolescents may explain the pathway differences between the boy and girl models in this study.

Implications

To reduce bullying among adolescents, it's essential to not only prevent its occurrence but also to stop its spread. Educators should acknowledge the roles of social anxiety and social-emotional competence. Incorporating Social and Emotional Learning (SEL) programs into daily instruction can enhance students' social-emotional skills, effectively addressing bullying in schools (Domitrovich et al., 2017; Smith & Low, 2013). Additionally, improving social-emotional competence can reduce social anxiety. For example, the Positive Attitude Upper Middle School SEL program aims to promote healthy behaviors in children and adolescents by developing students' social and emotional competence (Sousa et al., 2023). Implemented by trained psychologists in the classroom during the first semester, it consists of 13 weekly sessions (Marchante & Coelho, 2021). This program has proven effective in improving social-emotional competence and reducing social anxiety (Coelho et al., 2017; Sousa et al., 2023). Future efforts may focus on localizing and implementing foreign programs to enhance children's social-emotional competence and reduce social anxiety, thereby reducing the negative effects of bullying victimization.

Limitations

Future studies should address several limitations. First, the reliance on self-report data may have introduced social desirability bias, as participants might provide socially accepted answers rather than their true feelings. Employing diverse data collection methods, such as experimental approaches, could enhance accuracy. Second, the study's samples were limited to two specific geographic areas, necessitating caution in generalizing results to other populations. Broader data collection is essential for a better understanding of the relationship between bullying victimization and bystander behavior. Finally, some of the subjects in Huainan experienced a change in class when they moved from their first to second year of high school. Although this study organized the subjects according to their names and numbers to avoid confusing data, the change in the environment in which they were placed may have had additional effects. Specifically, without information on individual-level shift changes, it is difficult to assess whether observed differences in behavior or performance are attributable to shift changes themselves or to other unmeasured factors. This constraint may result in residual confounding and limit the ability to draw firm conclusions about the relationships examined in the study. This needs to be avoided in future studies to exclude such effects.

Conclusion

This study found that the vicious effects of bullying victimization on bystander behavior in bullying can be prevented by intervening in social-emotional competence as well as social anxiety. Increasing social-emotional competence and decreasing social anxiety can reduce the vicious effects of bullying victimization on negative bystander behaviors and thus promote positive victim development.

CRediT authorship contribution statement

Ruoxin Gao: Conceptualization, Data curation, Formal analysis, Methodology, Writing - original draft, Writing - review & editing. *Xiaowei Chu:* Conceptualization, Project administration, Methodology, Writing - review & editing.

References

Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology*, *30*, 47–87. https://doi.org/10.1111/j.1745-9125.1992.tb01093.x

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, *4*, 359–373.

Batanova, M., Espelage, D. L., & Rao, M. A. (2014). Early adolescents' willingness to intervene: What roles do attributions, affect, coping, and self-reported victimization play? *Journal of School Psychology*, *52*, 279–293. https://doi.org/10.1016/j.jsp.2014.02.001

Björkqvist, K. (2018). Gender differences in aggression. *Current Opinion in Psychology*, *19*, 39–42. https://doi.org/10.1016/j.copsyc.2017.03.030

Carbone-Lopez, K., Esbensen, F.-A., & Brick, B. T. (2010). Correlates and consequences of peer victimization: Gender differences in direct and indirect forms of bullying. *Youth Violence and Juvenile Justice*, *8*(4), 332–350. https://doi.org/10.1177/1541204010362954

Collaborative for Academic Social, and Emotional Learning [CASEL]. (2018). *What is SEL*. (Accessed 3 July 2018). Available at:. https://casel.org/

Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, *14*(3), 464–504. https://doi.org/10.1080/10705510701301834

Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 69–93). The Guilford Press.

Coelho, V. A., & Marchante, M. (2021). A multilevel analysis of the influence of bullying participant roles upon the trajectories of adolescents' social and emotional competencies. *School Psychology International*, *42*(3), 306–323. https://doi.org/10.1177/0143034321988972

Coelho, V. A., & Romão, A. M. (2018). The relation between social anxiety, social withdrawal and (cyber) bullying roles: A multilevel analysis. *Computers in Human Behavior*, *86*, 218–226. https://doi.org/10.1016/j.chb.2018.04.048

Coelho, V. A., & Sousa, V. (2021). A multilevel analysis of the relation between bullying roles and social and emotional competencies. *Journal of Interpersonal Violence*, *36*(11–12), 5122–5144. https://doi.org/10.1177/0886260518801943

Coelho, V., Sousa, V., Raimundo, R., & Figueira, A. (2017). The impact of a Portuguese middle school social–emotional learning program. *Health Promotion International*, *32*, 292–300. https://doi.org/10.1093/heapro/dav064

Collie, R. J. (2022). Instructional support, perceived social-emotional competence, and students' behavioral and emotional well-being outcomes. *Educational Psychology*, *42*(1), 4–22. https://doi.org/10.1080/01443410.2021.1994127

Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development*, *17*(1), 57–89. https://doi.org/10.1207/s15566935eed1701_4

Domitrovich, C. E., Durlak, J., Staley, K. C., & Weissberg, R. P. (2017). Social-emotional competence: An essential factor for promoting positive adjustment and reducing risk and school children. *Child Development*, *88*, 408–416. https://doi.org/10.1111/cdev.12739

Erath, S. A., Flanagan, K. S., & Bierman, K. L. (2007). Social anxiety and peer relations in early adolescence: Behavioral and cognitive factors. *Journal of Abnormal Child Psychology*, *35*, 405–416. https://doi.org/10.1007/s10802-007-9099-2

Ernst, J., Rückert, F., Ollmann, T. M., Voss, C., Kische, H., Knappe, S., et al. (2024). Social interactions in everyday life of socially anxious adolescents: Effects on mental state, anxiety, and depression. *Research on Child and Adolescent Psychopathology*, *52*(2), 207–222. https://doi.org/10.1007/s10802-023-01121-5

Ettekal, I., Kochenderfer-Ladd, B., & Ladd, G. W. (2015). A synthesis of person- and relational-level factors that influence bullying and bystanding behaviors: Toward an integrative framework. *Aggression and Violent Behavior*, *23*, 75–86. https://doi.org/10.1016/j.avb.2015.05.011

Félix, E. M. R., Del Rey Alamillo, R., & Ruiz, R. O. (2011). Prevalence and differentiating aspects related to gender with regard to the bullying phenomenon in poor countries. *Psicothema*, *23*(4), 624–629.

Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, *43*(4), 522–527. https://doi.org/10.1037/h0076760

Huang, Z., Liu, Z., Liu, X., Lv, L., Zhang, Y., Ou, L., & Li, L. (2016). Risk factors associated with peer victimization and bystander behaviors among adolescent students. *International Journal of Environmental Research and Public Health*, *13*(8), 759–770. https://doi.org/10.3390/ijerph13080759

Huitsing, G., Snijders, T. A., Van Duijn, M. A., & Veenstra, R. (2014). Victims, bullies, and their defenders: A longitudinal study of the coevolution of positive and negative networks. *Development and Psychopathology*, *26*, 645–659. https://doi.org/10.1017/S0954579414000297

Hunter, S. C., Boyle, J. M., & Warden, D. (2004). Help seeking amongst child and adolescent victims of peer-aggression and bullying: The influence of school-stage, gender, victimization, appraisal, and emotion. *The British Journal of Educational Psychology*, *74*(3), 375–390. https://doi.org/10.1348/0007099041552378

Idsoe, T., Vaillancourt, T., Dyregrov, A., Hagen, K. A., Ogden, T., & Nærde, A. (2021). Bullying victimization and trauma. *Frontiers in Psychiatry*, *11*, Article 480353. https://doi.org/10.3389/fpsyt.2020.480353

Jiang, C., & Shi, J. (2024). The relationship between bullying victimization and problematic behaviors: A focus on the intrapersonal emotional competence and interpersonal social competence. *Child Abuse & Neglect*, *152*, Article 106800. https://doi.org/10.1016/j.chiabu.2024.106800

Jiang, S., Liu, R. D., Ding, Y., Jiang, R., Fu, X., & Hong, W. (2022). Why the victims of bullying are more likely to avoid involvement when witnessing bullying situations: The role of bullying sensitivity and moral disengagement. *Journal of Interpersonal Violence*, *37*(5-6), 3062–3083. https://doi.org/10.1177/0886260520948142

Jungert, T., Holm, K., Iotti, N. O., & Longobardi, C. (2021). Profiles of bystanders' motivation to defend school bully victims from a self-determination perspective. *Aggressive Behavior*, *47*(1), 78–88. https://doi.org/10.1002/ab.21929

Jungert, T., Piroddi, B., & Thornberg, R. (2016). Early adolescents' motivations to defend victims in school bullying and their perceptions of student-teacher relationships: A self-determination theory approach. *Journal of Adolescence*, *53*, 75–90. https://doi.org/10.1016/j.adolescence.2016.09.001

Kaeppler, A. K., & Erath, S. A. (2017). Linking social anxiety with social competence in early adolescence: Physiological and coping moderators. *Journal of Abnormal Child Psychology*, *45*, 371–384. https://doi.org/10.1007/s10802-016-0173-5

Kang, Y., Ha, J. S., Ham, G., Lee, E., & Jo, H. (2022). A structural equation model of the relationships between social-emotional competence, social support, depression, and aggression in early adolescents in South Korea. *Children and Youth Services Review*, *138*, Article 106498. https://doi.org/10.1016/j.childyouth.2022.106498

Kelly, E. V., Newton, N. C., Stapinski, L. A., Slade, T., Barrett, E. L., Conrod, P. J., et al. (2015). Suicidality, internalizing problems and externalizing problems among adolescent bullies, victims and bully-victims. *Preventative Medicine*, *73*, 100–105. https://doi.org/10.1016/j.ypmed.2015.01.020

Kenny, D. A. (1994). *Interpersonal perception: A social relations analysis*. Guilford Press.

Kokkinos, C. M., & Kipritsi, E. (2012). The relationship between bullying, victimization, trait emotional intelligence, self-efficacy, and empathy among preadolescents. *Social Psychology of Education*, *15*, 41–58. https://doi.org/10.1007/s11218-011-9168-9

Krauss, A., Jouriles, E. N., Yule, K., Grych, J. H., Sargent, K. S., & Banyard, V. L. (2021). Adverse consequences to assisting victims of campus violence: Initial investigations among college students. *Journal of Interpersonal Violence*, *36*(3-4), 1607–1624. https://doi.org/10.1177/0886260517746944

Lacombe, C., Simoneau, K., Elalouf, K., & Collin, C. (2023). The impact of social anxiety disorder on emotional expression recognition: A meta-analysis. *Cognitive Therapy and Research*, *47*, 732–751. https://doi.org/10.1007/s10608-023-10376-7

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Li, T., Chen, B., Li, Q., Wu, X., Li, Y., & Zhen, R. (2023). Association between bullying victimization and post-traumatic stress disorders among Chinese adolescents: A multiple mediation model. *BMC Psychiatry*, *23*(1), Article 758. https://doi.org/10.1186/s12888-023-05212-x

Lian, Y., Liu, L., Lu, Z. A., & Wang, W. (2022). Longitudinal relationships between bullying and prosocial behavior: The mediating roles of trauma-related guilt and shame. *PsyCh Journal*, *11*(4), 492–499. https://doi.org/10.1002/pchj.540

Lucas-Molina, B., Pérez-Albéniz, A., Fonseca-Pedrero, E., & Giménez-Dasí, M. (2018). Bullying, defending, and outsider behaviors: The moderating role of social status and gender in their relationship with empathy. *Scandinavian Journal of Psychology*, *59*(4), 473–482. https://doi.org/10.1111/sjop.12453

Ma, J., Khan, A. R., Zhang, H. J., Jun, Z., Abonazel, M. R., Ahmad, M. S., et al. (2023). Exploring the potential impact of group identity on post-traumatic growth in the aftermath of corona outbreak: Function of social-emotional competence as a mediator. *Frontiers in Public Health*, *11*, Article 1282462. https://doi.org/10.3389/fpubh.2023.1282462

Ma, T. L., Meter, D. J., Chen, W. T., & Lee, Y. (2019). Defending behavior of peer victimization in school and cyber context during childhood and adolescence: A meta-analytic review of individual and peer-relational characteristics. *Psychological Bulletin*, *145*(9), 891–928. https://doi.org/10.1037/bul0000205

Mantz, L. S., Bear, G. G., Yang, C., & Harris, A. (2018). The Delaware Social-Emotional Competency Scale (DSECS-S): Evidence of validity and reliability. *Child Indicators Research*, *11*, 137–157. https://doi.org/10.1007/s12187-016-9427-6

Marchante, M., & Coelho, V. A. (2021). O programa de aprendizagem socioemocional - atitude positiva 3^{a} ciclo nas academias gulbenkian do conhecimento. *International Journal of Developmental and Educational Psychology*, *2*(1), 461–470. https://doi.org/10.17060/ijodaep.2021.n1.v2.2097

Marlow, C., Gönültaş, S., & Mulvey, K. L. (2023). Adolescents' expectations for types of victim retaliation following direct bullying. *Journal of Youth and Adolescence*, *52*(3), 533–546. https://doi.org/10.1007/s10964-022-01710-5

Mathews, B. L., Koehn, A. J., Abtahi, M. M., & Kerns, K. A. (2016). Emotional competence and anxiety in childhood and adolescence: A meta-analytic review. *Clinical Child and Family Psychology Review*, *19*(2), 162–184. https://doi.org/10.1007/s10567-016-0204-3

McDonald, K. L. (2019). Revenge goals. In M. H. Jones (Ed.), *Social goals in the classroom* (1st Ed., pp. 111–130). Routledge. https://doi.org/10.4324/9780429468452

Meter, D. J., & Card, N. A. (2015). Defenders of victims of peer aggression: Interdependence theory and an exploration of individual, interpersonal, and contextual effects on the defender participant role. *Developmental Review*, *38*, 222–240. https://doi.org/10.1016/j.dr.2015.08.001

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

Nickerson, A. B., Breese, A., & Alberti, J. M. (2023). Bullying as a form of abuse: Conceptualization and prevention. In T. W. Miller (Ed.), *School violence and primary prevention*. Springer. https://doi.org/10.1007/978-3-031-13134-9_21

Nickerson, A. B., Fredrick, S. S., Allen, K. P., & Jenkins, L. N. (2019). Social emotional learning (SEL) practices in schools: Effects on perceptions of bullying victimization. *Journal of School Psychology*, *73*, 74–88. https://doi.org/10.1016/j.jsp.2019.03.002

Nordahl, H., Nordahl, H. M., Vogel, P. A., & Wells, A. (2018). Explaining depression symptoms in patients with social anxiety disorder: Do maladaptive metacognitive beliefs play a role? *Clinical Psychology & Psychotherapy*, *25*(3), 457–464. https://doi.org/10.1002/cpp.2181

Oberle, E., Ji, X. R., & Molyneux, T. M. (2023). Pathways from prosocial behaviour to emotional health and academic achievement in early adolescence. *The Journal of Early Adolescence*, *43*(5), 632–653. https://doi.org/10.1177/02724316221113349

Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Blackwell Publishing.

Paquette, J. A., & Underwood, M. K. (1999). Gender differences in young adolescents' experiences of peer victimization: Social and physical aggression. *Merrill-Palmer Quarterly*, *45*(2), 242–266.

Pontillo, M., Tata, M. C., Averna, R., Demaria, F., Gargiullo, P., Guerrera, S., et al. (2019). Peer victimization and onset of social anxiety disorder in children and adolescents. *Brain Sciences*, *9*(6), 132–148. https://doi.org/10.3390/brainsci9060132

Pouwels, J. L., Lansu, T. A., & Cillessen, A. H. (2016). Participant roles of bullying in adolescence: Status characteristics, social behavior, and assignment criteria. *Aggressive Behavior*, *42*, 239–253. https://doi.org/10.1002/ab.21614

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy*, *35*(8), 741–756. https://doi.org/10.1016/S0005-7967(97)00022-3

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

Rodkin, P. C., & Hodges, E. V. E. (2003). Bullies and victims in the peer ecology: Four questions for psychologists and school professionals. *School Psychology Review*, *32*, 384–400. https://doi.org/10.1080/02796015.2003.12086207

Rosander, M., & Nielsen, M. (2023). Witnessing bullying at work: Inactivity and the risk of becoming the next target. *Psychology of Violence*, *13*, 34–42. https://doi.org/10.1037/vio0000406

Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin*, *132*, 98–131. https://doi.org/10.1037/0033-2909.132.1.98

Scanlon, C. L., Del Toro, J., & Wang, M. T. (2020). Socially anxious science achievers: The roles of peer social support and social engagement in the relation between adolescents' social anxiety and science achievement. *Journal of Youth and Adolescence*, *49*, 1005–1016. https://doi.org/10.1007/s10964-020-01224-y

Scheier, M. F., & Carver, C. S. (1985). The Self-Consciousness Scale: A revised version for use with general populations. *Journal of Applied Social Psychology*, *15*(8), 687–699. https://doi.org/10.1111/j.1559-1816.1985.tb02268.x

Smith, B. H., & Low, S. (2013). The role of social-emotional learning in bullying prevention efforts. *Theory Into Practice*, *52*(4), 280–287. https://doi.org/10.1080/00405841.2013.829731

Smith, P. K., López-Castro, L., Robinson, S., & Görzig, A. (2019). Consistency of gender differences in bullying in cross-cultural surveys. *Aggression and Violent Behavior*, *45*, 33–40. https://doi.org/10.1016/j.avb.2018.04.006

Sousa, V., Silva, P. R., Romão, A. M., & Coelho, V. A. (2023). Can an universal school-based social emotional learning program reduce adolescents' social withdrawal and social anxiety? *Journal of Youth and Adolescence*, *52*, 2404–2416. https://doi.org/10.1007/s10964-023-01840-4

Takami, K., & Haruno, M. (2019). Behavioral and functional connectivity basis for peer-influenced bystander participation in bullying. *Social Cognitive and Affective Neuroscience*, *14*(1), 23–33. https://doi.org/10.1093/scan/nsy109

Thornberg, R., & Jungert, T. (2013). Bystander behavior in bullying situations: Basic moral sensitivity, moral disengagement and defender self-efficacy. *Journal of Adolescence*, *36*, 476–483. https://doi.org/10.1016/j.adolescence.2013.02.003f

Thornberg, R., Tenenbaum, L., Varjas, K., Meyers, J., Jungert, T., & Vanegas, G. (2012). Bystander motivation in bullying incidents: To intervene or not to intervene? *Western Journal of Emergency Medicine*, *13*(3), 247–252. https://doi.org/10.5811/westjem.2012.3.11792

Troop-Gordon, W., Frosch, C. A., Wienke Totura, C. M., Bailey, A. N., Jackson, J. D., & Dvorak, R. D. (2019). Predicting the development of pro-bullying bystander behavior: A short-term longitudinal analysis. *Journal of School Psychology*, *77*, 77–89. https://doi.org/10.1016/j.jsp.2019.10.004

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2019). *Behind the numbers: Ending school violence and bullying*. United Nations Educational, Scientific and Cultural Organization. https://doi.org/10.54675/TRVR4270

Unnever, J. D., & Cornell, D. G. (2004). Middle school victims of bullying: Who reports being bullied? *Aggressive Behavior*, *30*(5), 373–388. https://doi.org/10.1002/ab.20030

van Noorden, T. H. J., Cillessen, A. H. N., Haselager, G. J. T., Lansu, T. A. M., & Bukowski, W. M. (2017). Bullying involvement and empathy: Child and target characteristics. *Social Development*, *26*(2), 248–262. https://doi.org/10.1111/sode.12197

Vollhardt, J. R. (2009). Altruism born of suffering and prosocial behaviors following adverse life events: A review and conceptualization. *Social Justice Research*, *22*(1), 53–97. https://doi.org/10.1007/s11211-009-0088-1

Walters, G. D. (2020). Unraveling the bidirectional relationship between bullying victimization and perpetration: A test of mechanisms from opportunity and general strain theories. *Youth Violence and Juvenile Justice*, *18*(4), 395–411. https://doi.org/10.1177/1541204020922874

Wang, X. D., Wang, X. L., & Ma, H. (1999). Handbook of rating scales for mental health (Revised Edition). *Chinese Mental Health Journal Press*.

Wang, J., Iannotti, R. J., & Nansel, T. R. (2009). School bullying among adolescents in the United States: Physical, verbal, relational and cyber. *Journal of Adolescent Health*, *45*, 368–375. https://doi.org/10.1016/j.jadohealth.2009.03.021

Widom, C. S. (1989). The cycle of violence. *Science*, *244*, 160–166. https://doi.org/10.1126/science.2704995

Wu, X., Qi, J., & Zhen, R. (2021). Bullying victimization and adolescents' social anxiety: Roles of shame and self-esteem. *Child Indicators Research*, *14*, 769–781. https://doi.org/10.1007/s12187-020-09777-x

Yang, C., Chan, M. K., & Ma, T. L. (2020). School-wide social emotional learning (SEL) and bullying victimization: Moderating role of school climate in elementary, middle, and high schools. *Journal of School Psychology*, *82*, 49–69. https://doi.org/10.1016/j.jsp.2020.08.002

Ye, Z., Harrison, S. E., & Lin, D. (2022). A latent transition analysis of longitudinal stability of peer victimization experiences among Chinese adolescents. *Child Abuse & Neglect*, *126*, Article 105522. https://doi.org/10.1016/j.chiabu.2022.105522

Zhang, W. X., Wu, J. F., & Kevin, J. (1999). Revision of the Chinese version of the Olweus Child Bullying Questionnaire. *Psychological Development and Education*, *15*(2), 8–12+38. https://doi.org/10.16187/j.cnki.issn1001-4918.1999.02.002

Zhao, Y. J., Chu, X. W., & Rong, K. X. (2023). Cyberbullying experience and bystander behavior in cyberbullying incidents: The serial mediating roles of perceived incident severity and empathy. *Computers in Human Behavior*, *138*, Article 107484. https://doi.org/10.1016/j.chb.2022.107484

Zhu, X. X. (2016). *Study on the reliability and validity of the Chinese version of Delaware Social and Emotional Competency Scale (Master's thesis)*. Hunan Normal University.