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ORIGINAL ARTICLE

Bidirectional Associations Between Bullying Victimization and Likeability Among Indian Adolescents

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Abstract

Research suggests that well-liked adolescents are less likely to be victimized by peers whereas disliked adolescents are at an increased risk for bullying victimization. Yet, bidirectional relations between likeability and bullying victimization remain understudied, particularly in non-Western countries. The main objective of this study was to analyze the bidirectional associations between bullying victimization and likeability in a sample of Indian adolescents, using a multi-informant gender-based approach. The sample was composed of 1238 students, aged 11–16 (66.6% males), from nine schools in India. Two follow-ups were carried out, spaced three-months apart, resulting in a sample of 1006 students (72% males) in the third wave of study. Two cross-lagged panel models (CLPM) were computed separately for self- and peer-reported bullying victimization, and multiple group analyses were used to examine gender differences. The results showed a complex longitudinal interplay between victimization and likeability, which differed between boys and girls. In boys, likeability and victimization were bidirectionally related over time, with slight differences between self- and peer-reports. Among girls, only two significant relations emerged, suggesting that peer victimization could lead to rejection, and having more friends could put girls at risk for future victimization. These findings indicate that bullying victimization is a complex phenomenon in which peer acceptance and rejection play a different role for boys and girls in the Indian context.

Keywords Victimization · Likeability · Peer acceptance · Peer rejection · Adolescents · India

Introduction

Bullying victimization is strongly connected to social well-being and peer group likeability, especially during adolescence. Certain factors, such as peer affection or number of friends, may prevent the involvement in bullying victimization, while others, like peer rejection, may increase the risk of being victimized (Longobardi et al., 2022; Pouwels et al., 2018). Nonetheless, these patterns of associations are complex, and some studies have suggested that likeability and victimization might be related in a cyclical manner, that is, being less liked or more disliked by peers would predict victimization but being victimized would also predict lower levels of likeability, including less peer acceptance and more peer rejection (e.g., Sentse et al., 2015). Most of these studies have been conducted in Western countries. India, the country with the largest youth population in the world, has few scientific publications about bullying victimization. This is the more striking because findings from Western studies do not necessarily generalize to India. Thus, the goal of the current study is to analyze the bidirectional relations between bullying victimization and likeability in a longitudinal design among adolescents in India. We focus on three indicators of likeability, namely, the number of peer nominations of being liked (peer acceptance), the number of peer nominations of being disliked (peer rejection), and the number of peer nominations as a friend—which gives an indication of an adolescents' social integration in the school context (Scholte et al., 2007).

Adolescence is a period of changes in which peer relationships and social status play an important role in the life of individuals. In this developmental stage, the need for peer

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affection becomes key for adolescents' wellbeing (Veenstra & Laninga-Wijnen, 2022). Peer affection refers to horizontal relationships and includes being accepted, being liked, and the avoidance of being rejected (De Vries et al., 2021; McElhaney et al., 2008; Sijtsema et al., 2020). Apart from the promotion of social wellbeing, it has been suggested that peer acceptance may also discourage bullying victimization. Bullying is a subtype of aggression in which an individual or a group of individuals repeatedly attacks, humiliates, and/or excludes a weaker individual in a group, reflecting a power imbalance between the bully and the victim (Salmivalli, 2010). With up to 30 percent of adolescents reporting victimization at some point in their lives (Elgar et al., 2015) and relations with mental health problems (Moore et al., 2017), it is no surprise that bullying has been labeled a 'significant public health problem' (Hertz et al., 2013).

Past research suggests that students who are better liked among their peers are less likely to be chosen as victims by bullies because there is a larger risk of retaliation by classmates (e.g., Longobardi et al., 2022; Sentse et al., 2015). This idea has received support in several cross-sectional studies: being well liked by peers, referred to as peer acceptance, is negatively related to victimization (Casper et al., 2020; Longobardi et al., 2022; Pellegrini & Long, 2002; Pouwels et al., 2018). Similarly, bidirectional associations between bullying victimization with low peer acceptance were found in longitudinal studies, although this pattern of relationships was inconsistent across studies. Some studies supported reciprocal associations between low peer acceptance and victimization over time (Sentse et al., 2015), whereas others only found significant paths from peer victimization to low peer acceptance (Kochel et al., 2012). Some authors have even hypothesized that well liked individuals are also at risk of bullying victimization because bullies might see them as potential "rivals" to attain status (Faris & Felmlee, 2014).

On the other hand, children who are rejected by their peers may be convenient victims for bullies because attacks on them are less likely to be punished by the peer group, rather attacks against rejected children may even seem justified (Pellegrini & Long, 2002; Sentse et al., 2015). Moreover, victims tend to lose sympathy over time. This may prevent others from establishing relationships with them, because these others may fear that building or maintaining positive relationships with victims might lead to a decline in their own social status (de Vries et al., 2021; Neal & Veenstra, 2021). The results found in previous studies are in line with these hypotheses. Specifically, adolescents who were rejected by peers (i.e., those who received many disliked nominations) were at higher risk of bullying victimization (Casper et al., 2020; Longobardi et al., 2022; Pellegrini & Long, 2002; Pouwels et al., 2018). Furthermore, reciprocal associations between bullying victimization with high peer rejection were found in longitudinal studies, indicating that they reinforce each other over time (Sentse et al., 2015). However, in another study it was found that peer rejection no longer predicted victimization, and vice versa, when other individual variables were entered in the model (Krygsman & Vaillancourt, 2017).

The number of friends that adolescents have in their peer networks is a crucial aspect of their social development and represents a good indicator of social integration in the classroom (Scholte et al., 2007). Friends are important sources of peer affection and belonging and contribute to maintaining social status (Sentse et al., 2013). Having a larger number of friends has been associated with higher levels of social support and peer acceptance (Gazelle et al., 2022). Conversely, having few or no friends can lead to feelings of social isolation, rejection, and vulnerability to bullying victimization (Pedersen et al., 2007). It has been proposed that adolescents that have at least one good friend are less likely to be victimized, but these relationships depend on other characteristics such as likeability or reciprocity (de Vries et al., 2021; Scholte et al., 2009). Most studies have analyzed these effects separately, making it difficult to disentangle their effects over and above other indicators of likeability. Thus, studying the longitudinal interplay between peer acceptance, peer rejection, number of friends, and victimization while accounting for the effects of the other likability indicators is warranted.

Though longitudinal relations between likeability indicators and victimization have been reported, research has yielded mixed results, especially when gender was included in the model. De Bruyn et al. (2010) found that high levels of peer acceptance were related to lower chances of victimization in boys, whereas in girls both peer acceptance and peer rejection were associated with higher scores in victimization. Gender differences were also found in longitudinal studies. Using cross-lagged panel models (CLPM), Sentse et al. (2015) found that peer rejection consistently predicted victimization in both genders but the reverse, that is, victimization predicting peer rejection, was only significant in girls. A possible explanation is that social status has different connotations in boys and girls, causing them to employ distinct strategies to achieve social recognition. In boys, toughness and aggressiveness are considered important and pragmatic social values, which may lead them to use physical aggression to directly assert or establish their social status (Donoghue & Raia-Hawrylak, 2016; Espelage & Holt, 2001). In girls, appearance seems to be a more relevant factor and they are more likely to engage in relational aggression aimed at, more indirectly. damaging the victims' reputation in order to achieve social status (Donoghue & Raia-Hawrylak, 2016; Espelage & Holt, 2001; Volk et al., 2012). Peer rejection is a form of relational aggression which is implicit in bullying behaviors; therefore, this may explain why for girls, more clearly than for boys,

significant pathways have been found from victimization to peer rejection, because girls use more social aggression towards their peers than their counterparts (Donoghue & Raia-Hawrylak, 2016). Thus, the damaged reputation of victims may cause classmates to no longer associate with the victims (Pouwels et al., 2018; Sentse et al., 2013). However, a recent meta-analysis did not find significant gender differences in relational aggression or victimization (Casper et al., 2020). Given these inconsistencies, further research is needed to examine gender differences in the relationship between likability and victimization, an association that the present study aims to further investigate among Indian adolescents.

Most of the studies about adolescents' likeability and bullying victimization have been conducted in Western countries (Thakkar et al., 2021; Wiertsema et al., 2023). More research in non-Western countries is needed to understand whether behavioral patterns observed in studies conducted in Western countries resemble those found in other cultural contexts (Veenstra & Laninga-Wijnen, 2022). India, a country with the largest youth population in the world, has few scientific publications about bullying (Thakkar et al., 2021), let alone investigations about bullying victimization and likeability. Moreover, given the unique socio-cultural context of India (Smith et al., 2018; Thakkar et al., 2021), findings from Western studies may not necessarily generalize to this context, thus warranting research in the Indian setting. The only relevant comparative study showed that cross-sectional associations between bullying participant roles and preference/affiliative status were cross-culturally similar between Indian and Western adolescents (Pronk et al., 2017). The study also found a cluster of negative associations between preference and being victimized in both, Indian and Western, cohorts.

The Current Study

Despite the relevance of likeability in the explanation of bullying and victimization, the role of peer acceptance, peer rejection, and number of friends has barely been examined in India. The only study that included a sample of Indian adolescents employed a cross-sectional design, which does not allow to disentangle the interplay of the constructs over time (Pronk et al., 2017). The main objective of the current study is to examine bidirectional longitudinal associations between victimization and likeability (i.e., peer acceptance, peer rejection, and number of friends) in a sample of school-going Indian adolescents. India, alongside a mammoth population, also harbors a gamut of socio-cultural diversity that has been found to be associated with bullying behaviors. To illustrate, the caste-system in India is historically rooted, where distinct social identities between different caste groups such as the General caste (upper caste), scheduled caste and scheduled tribes, or Other backward classes (lower castes) have contributed to cultural discrimination, even among adolescents in India (Jaishankar, 2009). For bullying behaviors, caste-based bullying between "upper" and "lower" castes have been reported, as also, religious bullying among adolescents between Hindus, Muslims, Sikhs, and other sub-religions have been noted in past studies from India (Thakkar et al., 2021). Furthermore, socio-economic status (SES) has also been found to contribute to distinguishing students who were involved in bullying behavior from those who were not. Thus, in the present study we examine associations controlling for the constructs of age, SES, religion, and caste to focus on long term bidirectionality between victimization and likeability, beyond these constructs. In addition, because of unclarity as to the role of gender in the relation between victimization and likeability, we examine gender differences in all models of the present study.

Previous studies have employed either self-reports (e.g., Longobardi et al., 2022; Sentse et al., 2015) or peer nominations (e.g., Pozzoli & Gini, 2021; Veenstra et al., 2010) to measure bullying victimization. Both measures have advantages and shortcomings and, in general, studies that have directly compared them report low to moderate correspondence (Branson & Cornell, 2009). Therefore, a combination of both might be valuable in investigating victimization (Guy et al., 2019) and further substantiates the validity of the construct being measured (Salmivalli et al., 1996). Thus, the current study aims at analyzing the longitudinal interplay between bullying victimization and likeability from a multi-informant perspective and considering gender differences, using both self-reports and peer nominations.

Based on previous research, we expect to find concurrent and bidirectional longitudinal relations between bullying victimization and likeability. Studies about gender differences in relations between bullying victimization and likeability have been inconclusive, but based on a study by De Bruyn et al. (2010), we expect to find higher scores in bullying victimization in boys as well as gender differences in the relations between likeability and victimization over time.

Method

Participants and Procedure

The Institutional Review Board of the Institute of Education and Child Studies at Leiden University approved of the study. Data were collected from nine schools located in and around the city of Indore in central India. The data were collected at three timepoints, spaced three months apart, during the 2015–2016 school year. A total of 1238 students (grades 7 to 9; aged 11–16 years, Mage = 13.01, SD = 1.15) were

included in the analyses (1120 at T1—296 girls, 824 boys; 1036 at T2—274 girls, 762 boys; and 1006 at T3—282 girls, 724 boys). Students completed the questionnaire in India's national language, Hindi (N = 497, 40%), or English (N = 741, 60%), depending on the formal language of instruction at the participating schools. Of the nine participating schools, three were public schools (i.e., funded and run by the government) whereas six were private schools (privately owned by non-government organizations). Eight schools were co-ed schools, which means mixed boys and girls' schools, whereas one school was an all-boys school.

The initial sample consisted of 1908 students from ten schools, between the ages of 11 and 16 years, from grades 7, 8, and 9. However, disruptions in classroom due to large class sizes with sometimes over 50 students sitting closely together, combined with laxed disciplinary structures in classrooms have long been identified to complicate data collection processes in India (Thakkar et al., 2021). The current study is also affected by this, and, therefore, some exclusions in data were made in order to maintain a sample that met global research standards. From the all-boys school 143 students at T2 were excluded from data collection, due to classroom disruptions and laxed discipline. From grade 7 of one school, 185 students had received two sets of questionnaires during data collection at T1, one in English and the second in Hindi the next day, because the students found the English questionnaires difficult to follow on Day 1 despite the medium of instruction for that school being English, thus excluding these students from final analyses. One of the ten participating schools chose to drop out in Wave 3 because of undisclosed reasons, and thus, all students (337) from that school were excluded from the analyses. Five students were excluded due to incomplete data on their grade. Consequently, the final sample consisted of 1238 students from nine schools. Beyond the abovementioned exclusions, students that opted out of the research or were absent during data collection (118 at T1, 202 at T2, and 232 at T3) were marked as missing in analyses. The analysis of differences between adolescents that dropped out of the study and those who remained showed that adolescents who dropped out were less accepted at T1 ($F = 3.42$, $p < .001$), T2 ($F = 55.20$, $p < .001$), and T3 ($F = 89.72$, $p < .001$); had lower number of friends at T1 ($F = 36.84$, $p < .001$), T2 ($F = 5.50$, $p < .001$), and T3 ($F = 9.43$, $p < .001$); and had higher scores in self-reported victimization at T1 ($F = 6.82$, $p < .01$). Additionally, adolescents who remained in the study scored higher in peer-reported victimization ($F = 5.62$, $p < .05$).

Instruments

Likeability: Peer Acceptance, Rejection, and Friendships

Peer acceptance and rejection in the present study were measured through the sociometric classification model that employs a binomial probability theory (Newcomb & Bukowski, 1983). The model suggests that peer acceptance and rejection are defined as the number of most liked and most disliked nominations that each student receives in a classroom. Furthermore, past meta-analytic data has established not only a clear and convincing explanation for popular children's receipt of peer nominations as most liked peers but also as nominations of best friend (Bukowski & Hoza, 1989). In line with this, the present study provided all students with a sheet asking each to list five peers in the classroom who they liked, who they disliked, and who they thought of as their friends. The raw scores for each metric were standardized for grade strength summing up the number of nominations received by each student and dividing it by the total number of students in the class, as validated through past studies (Newcomb et al., 1993; Veenstra et al., 2010).

Self-Reported Victimization

The victimization subscale of the Illinois Bully–Fight–Victim Scale (Espelage & Holt, 2001) was used at T1, T2, and T3, to assess self-reported victimization. The scale has been found valid and reliable (Espelage et al., 2003). The victimization scale consists of four items that measure the experience of victimization from peers. The four questions of the scale are "Other students made fun of me," "Other students called me names," "I got hit and pushed by other students," and "Other students teased me." Response options for the scales are never (1), 1 or 2 times (2), 3 or 4 times (3), 5 or 6 times (4), and 7 or more times (5) in the past 30 days. In the present study, Cronbach's alpha for this scale was found to be .81 at T1, .84 at T2, and .85 at T3 for the English questionnaires and .88 at T1, .90 at T2, and .92 at T3 for the Hindi questionnaires.

Peer-Reported Victimization

All students in the classroom were given a sheet of paper that described bullying behavior in a few words (teasing, fighting, excluding, name-calling, etc.). At each of the timepoints T1, T2, and T3, students received a list of their classmates and were asked to nominate (circle names of) classmates who had been victims of bullying. There was no limit on the number of victims that could be nominated. Past research has shown that dyadic nominations of bully and victim status by peers within a classroom are a reliable and valid way to measure bullying, and this has been demonstrated in both international studies (Malamut et al., 2020; Veenstra et al., 2007) as well as in the Indian setting (Thakkar et al., 2020). A total score was calculated based on the number of times an individual was marked as a victim by their classmates. This total score was converted into proportions by dividing it by the number of students in the class, as suggested and done in previous studies (Veenstra et al., 2007).

Data Analysis

Descriptive statistics, gender differences, and zero-order correlations among all the study variables were first examined in SPSS v28. Gender differences between study variables were explored using independent t-test. To investigate the longitudinal associations between likeability (i.e., peer acceptance, peer rejection, and number of friends) and victimization, two CLPMs were conducted separately for self- and peer-reported victimization, controlling for age, religion, caste, and SES. The CLPMs were used to investigate whether (1) peer acceptance, peer rejection, and number of friends predict bullying victimization; (2) victimization predicts peer acceptance, peer rejection, and number of friends; and (3) likeability and victimization predict each other over time. A conceptual model is displayed in Fig. 1. CLPM was used because it allows testing for the prospective effects of one or more predictors at a specific time point on one or more outcomes at a subsequent time point (i.e., cross-lagged effects) controlling for the stability of the constructs (i.e., autoregressive effects) (Orth et al., 2021).

Multiple group models were computed to analyze potential gender differences in associations between likeability and victimization over time. In both cases (i.e., CLPM including self-report victimization and CLPM including peer-reported victimization), two models were computed: 1) an unconstrained model in which all path coefficients were freely estimated and 2) a model in which all path coefficients were constrained to be equal across genders. A significant $\chi 2$ test would indicate superior model fit in the unconstrained model indicating differences between boys and girls. CLPMs were computed in Mplus 7.4 (Muthén & Muthén, 2011) using full information maximum likelihood (FIML) as estimator to handle missing data. Several fit indices were used to evaluate model fit in addition to Chi-square statistic: the root mean-square error of approximation (RMSEA), standardized root mean residual (SRMR), the comparative fit index (CFI), and the Tucker–Lewis index (TLI). According to Hu and Bentler (1999), RMSEA and SRMR values lower or equal to .06, and TLI and CFI values of .95 or higher are indicative of good model fit.

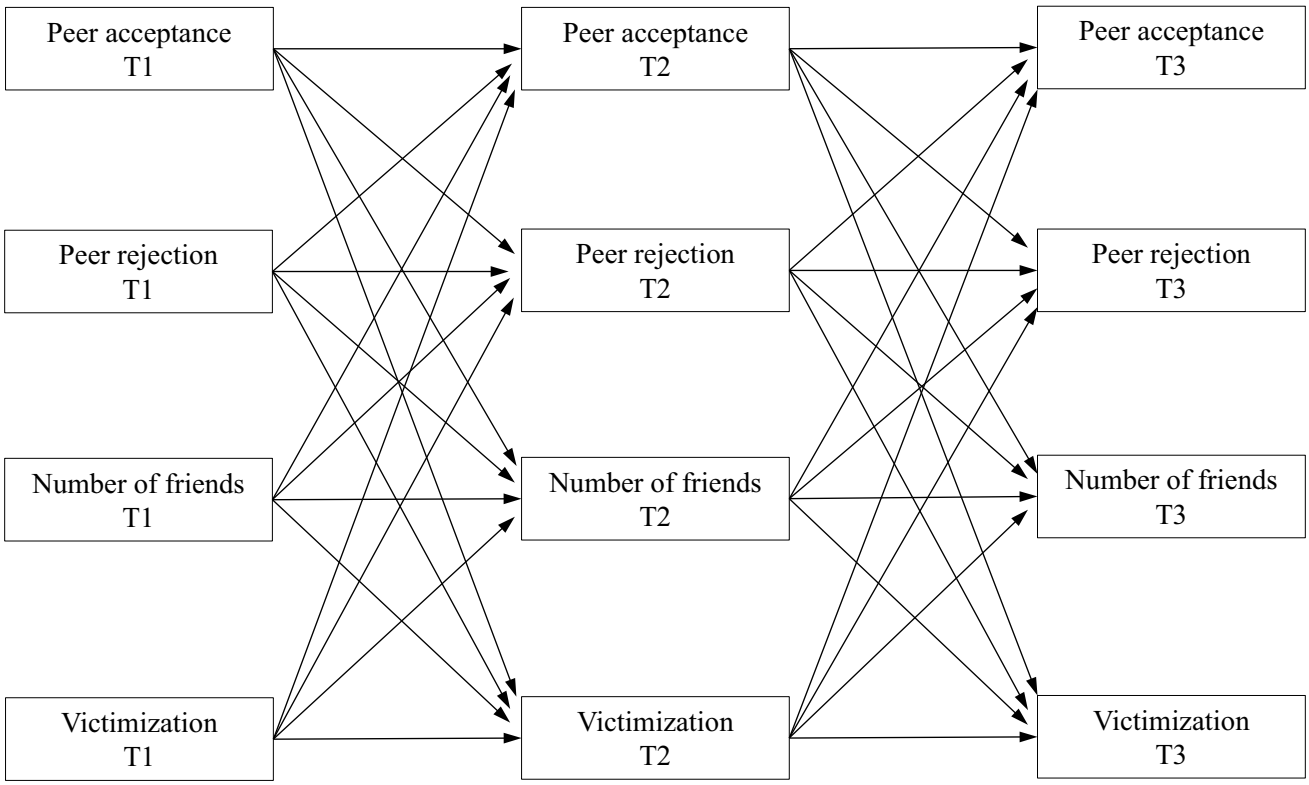

Fig. 1 Conceptual cross-lagged panel model for the longitudinal associations between likeability and victimization. The model also included cross-sectional correlations between all the measures at each time point of measurement. For clarity, cross-sectional correlations are not displayed in the figure

Results

Descriptive Statistics and Gender Differences

Descriptive statistics and gender differences are presented in Table 1. Overall, boys obtained higher scores than girls in most of the variables, except for peer acceptance at T2 and T3 and number of friends at T3. Regarding victimization, significant gender differences were found in self-reported victimization at the three time points and in peer-reported victimization at T2. In all cases, boys scored significantly higher than girls. A similar pattern of results was found for peer rejection, with boys scoring significantly higher than girls across time. The results of peer acceptance and number of friends were much more inconsistent. Boys scored higher than girls in peer acceptance at T1, whereas girls scored higher than boys at T2 and T3, although differences were significant only at T3. When looking at the results of number of friends, significant gender differences were observed at T1 and T3. At T1, a larger number of friends were found in boys whilst girls declared having more friends than did boys at T3.

Zero-Order Correlations Among All Variables of the Study

The results of the zero-order correlations among all the variables of the study are displayed separately for boys and girls in Table 2. As expected, victimization showed high stability over time in both genders, with significant correlations both concurrently and longitudinally. This result held for measures of self-reported victimization and peer-reported victimization independently. However, when looking at the inter-correlations between self- and peer-reported victimization, the pattern of associations was not so clear, and some gender differences emerged. Cross-sectional correlations indicated that self-reported and peer-reported victimization were associated with each other across all assessment points in boys, but only at T1 and T2 in girls. Longitudinal zero-order correlations suggested that only self-reported victimization at T1 was associated with peer-reported victimization across time in both genders. In girls, peer-reported victimization at T2 was also related to self-reported victimization at T3. In boys, peer-reported victimization at T1 correlated with self-reported victimization at T2, which correlated with peer-reported victimization at T3.

The pattern of correlations found between victimization and likeability also differed in girls and boys. In girls, significant positive cross-sectional correlations were found between peer-reported victimization and peer acceptance at T2 and between both self-reported and peer-reported victimization and peer rejection at T3. Only one longitudinal significant association was found for girls between peer rejection at T1 and peer-reported victimization at T3. In boys, a few significant correlations were found at the cross-sectional level. At T1, peer-reported victimization was positively related to peer acceptance, peer rejection, and number of friends; at T2, self-reported victimization was negatively associated with number of friends; and at T3, self-reported victimization was negatively correlated with peer acceptance

Table 1 Descriptive statistics and gender differences in all the study variables

	Range	Total sample *M* (SD)	Girls *M* (SD)	Boys *M* (SD)	*t*
Self-reported vict. T1	1–5	2.13 (1.10)	1.73 (.84)	2.28 (1.15)	−8.57***
Self-reported vict. T2	1–5	2.16 (1.13)	1.74 (.88)	2.34 (1.19)	−8.46***
Self-reported vict. T3	1–5	2.18 (1.13)	1.81 (1.00)	2.33 (1.15)	−6.79***
Peer-reported vict. T1	0–94	16.49 (13.97)	16.21 (14.14)	17.08 (14.13)	−.91
Peer-reported vict. T2	0–80	28.89 (19.11)	24.31 (18.15)	31.04 (18.95)	−5.42***
Peer-reported vict. T3	0–89	26.72 (15.93)	26.01 (17.76)	27.62 (15.24)	−1.14
Peer acceptance T1	0–20	4.03 (2.71)	4.02 (2.24)	4.20 (2.85)	−1.13
Peer acceptance T2	0–24	3.80 (2.66)	3.89 (2.12)	3.79 (2.82)	.65
Peer acceptance T3	0–15	3.68 (2.66)	4.03 (2.44)	3.56 (2.73)	2.76**
Peer rejection T1	0–29	3.17 (3.74)	2.08 (2.39)	3.65 (4.05)	−7.97***
Peer rejection T2	0–28	3.01 (3.46)	1.98 (2.13)	3.35 (3.75)	−7.61***
Peer rejection T3	0–22	2.92 (3.37)	2.11 (2.47)	3.20 (3.58)	−5.70***
Number of friends T1	0–18	3.91 (2.66)	3.71 (2.23)	4.16 (2.76)	−2.80**
Number of friends T2	0–20	3.78 (2.48)	3.76 (2.04)	3.79 (2.59)	−.18
Number of friends T3	0–15	3.56 (2.46)	3.77 (2.22)	3.49 (2.54)	1.75*

Self-reported vict. self-reported victimization, *Peer-reported vict.* peer-reported victimization

*$p < .05$; **$p < .01$; ***$p < .001$

Table 2 Zero-order correlations among all study variables separately for girls and boys

	1	2	3	4	5	6	7	8	9	1	11	12	13	14	15
1. Self-rep. vict. T1	-	.48***	.37***	.10**	.20***	.13***	−.04	−.09*	−.13***	.06	.02	.00	.01	−.05	−.09*
2. Self-rep. vict. T2	.54***	-	.47***	.09*	.16***	.15***	−.02	−.04	−.13***	.08*	.06	.04	−.03	−.08*	−.07
3. Self-rep. vict. T3	.48***	.46***	-	.06	.07	.08*	−.08	−.11**	−.12**	.11**	.11**	.08*	−.11**	−.11**	−.06
4. Peer-rep. vict. T1	.18**	.06	.09	-	.45***	.40***	.11**	.01	.03	.12***	.05	.04	.08*	−.00	.01
5. Peer-rep. vict. T2	.20***	.20***	.17**	.58***	-	.39***	.05	.01	−.04	.11**	.06	−.06	.08*	.06	−.04
6. Peer-rep. vict. T3	.14*	.07	.09	.42***	.28***	-	.05	−.06	.02	.05	−.01	.03	.04	−.04	.03
7. Peer acceptance T1	.02	.09	.05	.02	.04	.02	-	.65***	.54***	−.21***	−.23***	−.23***	.71***	.52***	.47***
8. Peer acceptance T2	.01	.02	.05	.02	.12**	−.01	.60***	-	.60***	−.19***	−.23***	−.22***	.59***	.71***	.54***
9. Peer acceptance T3	−.04	−.02	−.03	.00	.06	−.08	.49***	.55***	-	−.20***	−.22***	−.19***	.47***	.53***	.74***
1. Peer rejection T1	.08	−.02	.05	.06	−.02	.13*	−.29***	−.26***	−.25***	-	.74***	.59***	−.19***	−.17***	−.15***
11. Peer rejection T2	.02	.03	−.01	.05	.11	.10	−.23***	−.26***	−.24***	.62***	−	.72***	−.22***	−.22***	−.18***
12. Peer rejection T3	.07	.05	.20***	.07	.20***	.19***	−.17**	−.21***	−.28***	.46***	.61***	−	−.18***	−.18***	−.14***
13. Friends T1	−.04	.05	−.04	.06	.11	−.02	.58***	.48***	.39***	−.22***	−.15*	−.11	-	.54***	.42***
14. Friends T2	−.07	.04	−.00	−.05	.05	−.03	.50***	.63***	.39***	−.22***	−.23***	−.11*	.48***	-	.51***
15. Friends T3	−.01	.03	−.03	−.01	.07	−.06	.40***	.44***	.65***	−.24***	−.21***	−.21***	.39***	.39***	-

Self-rep. vict. self-reported victimization, *Peer-rep. vict.* peer-reported victimization, *Friends* number of friends. Correlations for girls are displayed below the diagonal and correlations for boys are displayed above the diagonal

*$p < .05$; **$p < .01$; ***$p < .001$

and positively correlated with peer rejection. Longitudinal correlations in boys showed negative relationships between self-reported victimization at T1 and peer acceptance at T2 and T3, as well as with number of friends at T3. In line with this, self-reported victimization at T2 was negatively associated with peer acceptance at T3 and vice versa. Moreover, peer rejection at T1 was positively related to both self-reported and peer-reported victimization at T2.

Cross-Lagged Panel Models (CLPM) Including Likeability and Victimization

In order to disentangle the bidirectional associations between likeability and victimization over time, two CLPM were computed separately for self-reported and peer-reported victimization, controlling for age, religion, caste, and SES. The results of the CLPMs are displayed in Table 3. The initial CLPM which included self-reported victimization showed a poor model fit ($\chi 2$ (16) = 141.87, RMSEA = .08 (CI .07, .09), SRMR = .02, CFI = .98; TLI = .86). The modification indices indicated that the specification of three parameters in the model would improve the model fit (i.e., peer acceptance at T2 ON peer acceptance at T3, correlations of residuals of victimization at T1 and T3, and peer rejection at T2 ON peer rejection at T3), so they were included leading to a good model fit ($\chi 2$ (13) = 14.63, RMSEA = .01 (CI .00, .03), SRMR = .00, CFI = 1.00; TLI = 1.00). All autoregressive paths were significant, except for number of friends from T2 to T3. Regarding longitudinal associations, self-reported victimization predicted lower levels of peer acceptance over time and higher levels of peer rejection predicted victimization, both from T1 to T2 and from T2 to T3.

The CLPM which included peer-reported victimization showed a poor model fit ($\chi 2$ (16) = 211.82, RMSEA = .10 (CI .09, .11), SRMR = .03, CFI = .97; TLI = .79). The modification indices suggested that the model fit would improve after the inclusion of three new parameters in the model (i.e., victimization at T2 ON victimization at T3, peer acceptance at T2 ON peer acceptance at T3, and peer rejection at T2 ON peer rejection at T3). The inclusion of these parameters led to an increase in all fit indices, reaching an adequate model fit ($\chi 2$ (13) = 17.85, RMSEA = .02 (CI .00, .04), SRMR = .01, CFI = 1.00; TLI = .99). As in the self-reported CLPM, all autoregressive paths were significant, except for number of friends in T2 and T3. Regarding the cross-lagged effects, only three paths were significant. Specifically, victimization at T1 predicted lower number of friends at T2 and the latter predicted victimization at T3. Moreover, peer rejection at T1 predicted higher levels of victimization at T2.

Multiple Group Models Analyzing Gender Differences Between Likeability and Victimization

To examine whether the associations between likeability and victimization differed between boys and girls, multiple group analyses were conducted. For the CLPM including self-reported victimization, the unconstrained model fit the data better than the constrained model (Chi-square difference = 162.87, df = 121, $p < .001$), suggesting that the associations between likeability and self-reported victimization were significantly different in boys and girls. The results of the freely estimated model are presented in Table 3. All autoregressive paths, with the exception of number of friends from T2 to T3, were significant for boys and girls. In girls, only one cross-lagged effect was significant, showing a positive association between number of friends at T1 and victimization at T2. In boys, victimization predicted lower levels of peer acceptance from T1 to T2 and from T2 to T3. Moreover, peer rejection at T2 predicted higher levels of victimization at T3.

For the CLPM including peer-reported victimization, the unconstrained model also fit the data better that the constrained model (Chi-square difference = 218.36, df = 121, $p < .001$), indicating that the pattern of relationships when victimization was reported by peers differed between boys and girls. Similar to previous models, all autoregressive paths were significant for both genders, except for the path from number of friends at T2 to number of friends at T3. In the sample of girls, only a significant cross-lagged effect from victimization at T2 to peer rejection at T3 was found. In the sample of boys, victimization at T1 predicted a higher number of friends at T2, victimization at T2 predicted lower levels of peer rejection at T3, and number of friends at T2 was negatively associated with victimization at T3.

Discussion

The current study analyzes bidirectional relations between bullying victimization and likeability in a sample of Indian adolescents. We used both peer-reports and self-reports and analyzed boys and girls separately. As expected, both victimization and likeability, especially peer acceptance and peer rejection, showed high stability over time. Furthermore, and similar to Sentse et al. (2015), our results show that the longitudinal interplay between bullying victimization and likeability is complex. It differs over time, per aspect of likeability, and is different for boys and girls.

Table 3 Standardized results of the freely estimated cross-lagged panel models between likeability and victimization for boys and girls

	Total sample						Girls						Boys					
	CLPM self-reported victimization			CLPM peer-reported victimization			CLPM self-reported victimization			CLPM peer-reported victimization			CLPM self-reported victimization			CLPM peer-reported victimization		
	β	SE	*p*	*β*	SE	*p*	*β*	SE	*p*	*β*	SE	*p*	*β*	SE	*p*	*β*	SE	*p*
Lagged (autoregressive) effects																		
Vict. T1 → vict. T2	.51	.02	< .001	.80	.07	< .001	.53	.04	< .001	.77	.09	< .001	.49	.03	< .001	.82	.10	< .001
Vict. T2 → vict. T3	.37	.03	< .001	.89	.06	< .001	.28	.09	< .01	.71	.10	< .001	.37	.04	< .001	.94	.07	< .001
Peer accept. T1 → peer accept. T2	.61	.05	< .001	.61	.05	< .001	.68	.11	< .001	.68	.11	< .001	.60	.06	< .001	.61	.05	< .001
Peer accept. T2 → peer accept. T3	.93	.07	< .001	.90	.07	< .001	1.02	.16	< .001	1.05	.17	< .001	.89	.08	< .001	.87	.08	< .001
Peer rejec. T1 → peer rejec. T2	.83	.03	< .001	.83	.03	< .001	.69	.07	< .001	.72	.07	< .001	.83	.04	< .001	.83	.04	< .001
Peer rejec. T2 → peer rejec. T3	.79	.02	< .001	.79	.02	< .001	.69	.07	< .001	.71	.07	< .001	.79	.03	< .001	.80	.03	< .001
Friends T1 → friends T2	.32	.03	< .001	.32	.03	< .001	.28	.06	< .001	.29	.06	< .001	.34	.04	< .001	.34	.04	< .001
Friends T2 → friends T3	.05	.04	.278	.06	.04	.170	.00	.09	.961	−.01	.09	.915	.04	.05	.414	.06	.05	.298
Cross-lagged effects																		
Vict. T1 → peer accep. T2	−.12	.03	< .001	−.05	.03	.066	−.01	.06	.835	−.01	.06	.897	−.12	.03	< .001	−.06	.03	.052
Vict. T2 → peer accep. T3	−.08	.03	< .01	−.01	.03	.739	−.05	.06	.434	−.08	.06	.185	−.07	.03	< .05	.01	.03	.800
Vict. T1 → peer rejec. T2	−.01	.02	.616	−.02	.02	.353	−.00	.05	.935	.01	.05	.852	−.02	.03	.368	−.02	.03	.378
Vict. T2 → peer rejec. T3	.01	.02	.623	−.01	.02	.664	.05	.05	.328	.17	.05	< .001	−.01	.03	.666	−.06	.03	< .05
Vict. T1 → friends T2	−.05	.03	.065	−.06	.02	< .05	−.07	.05	.158	−.07	.05	.134	−.04	.03	.147	−.06	.03	< .05
Vict. T2 → friends T3	−.02	.03	.491	−.03	.03	.384	−.00	.06	.980	−.02	.06	.701	−.02	.03	.494	−.01	.03	.881
Peer accept. T1 → vict. T2	.01	.04	.706	−.02	.05	.634	−.05	.06	.455	−.03	.07	.656	.04	.05	.439	−.06	.06	.315
Peer accept. T2 → vict. T3	−.03	.04	.471	−.00	.05	.972	−.00	.08	.974	−.14	.09	.128	−.03	.05	.531	.05	.06	.403
Peer rejec. T1 → vict. T2	.06	.03	< .05	.11	.04	< .01	−.05	.05	.335	−.02	.06	.709	.05	.03	.174	.08	.05	.083
Peer rejec. T2 → vict. T3	.09	.03	< .01	−.05	.03	.107	.03	.06	.645	.03	.06	.692	.08	.04	< .05	−.05	.04	.180
Friends T1 → vict. T2	.02	.04	.684	.09	.05	.067	.15	.06	< .05	.05	.07	.466	−.05	.05	.310	.10	.06	.097
Friends T2 → vict. T3	−.02	.04	.673	−.10	.04	< .05	−.01	.07	.942	.04	.08	.649	−.03	.05	.520	−.14	.06	< .05

Vict. victimization, *Peer accep.* peer acceptance, *Peer rejec.* peer rejection, *Friends* number of friends

The first hypothesis stating that concurrent and bidirectional longitudinal relations between bullying victimization and likeability were expected was partially confirmed. Most of the significant associations were in the expected direction, that is, bullying victimization was negatively associated with peer acceptance and number of friends and positively associated with peer rejection. However, the pattern was inconsistent and differed between boys and girls. Regarding peer acceptance, the results showed that girls were, generally, more accepted by peers. At a cross-sectional level, only one significant correlation was found in girls, showing that peer acceptance was positively related to peer-reported victimization at T2. This result was unexpected because negative associations between peer acceptance and victimization were hypothesized. Research suggests that well-liked individuals are at a lower risk of being targeted as victims because there is a higher risk of retaliation by peers (e.g., Longobardi et al., 2022; Sentse et al., 2015). However, the positive association found between peer acceptance and bullying victimization for girls is in line with the hypothesis of Faris and Felmlee (2014), who proposed that better liked individuals can be seen as potential "rivals" to bullies, increasing the risk of victimization. This positive association was also found in the sample of boys at T1. Regardless of this unexpected result, most of the correlations between peer acceptance and victimization were negative in boys, as we hypothesized. At a longitudinal level, we only found significant associations in the sample of boys. Specifically, self-reported victimization consistently predicted lower levels of peer acceptance, but not the reverse. This could be because toughness and aggression are important values for boys; victimization could threaten their ability to achieve these social values and prevent others from forming close relationships with those who are not perceived as "tough" or "aggressive" (Donoghue & Raia-Hawrylak, 2016; Espelage & Holt, 2001).

Regarding peer rejection, the results partially supported our hypothesis. A few significant and positive correlations with victimization were found at a cross-sectional level, for both boys and girls. Our findings evidenced distinct patterns of longitudinal associations between peer rejection and victimization among boys and girls. Specifically, we found that peer-reported bullying victimization predicted higher peer rejection in girls. This result is in line with the study of Sentse et al. (2015), who also found prospective associations from victimization to peer rejection only among girls, whereas likeability and bullying victimization were bidirectionally related among boys. With the self-reports of boys, we found that higher peer rejection was related to higher future bullying victimization, but with the peer-reports we found that bullying victimization was related to *lower* peer rejection. This discrepancy could be due to several factors such as informant bias or changes in social status over time. Self-reports may provide inaccurate information about victimization because some adolescents may feel embarrassment or fear when reporting these behaviors, or they may be unaware of such behaviors, and, therefore, they could underestimate the phenomenon, whereas others might attribute hostile intentions to classmates and overreport victimization. Peer-reports are valuable, but they also have limitations, such as the dependence on the saliency of behaviors, that is, only severe behaviors are visible to other students (Card & Hodges, 2008). However, it may also be that being bullied may initially lead to lower peer status, but over time the victim may become more accepted by their peers.

We only found relations between friendship and bullying victimization with the peer reports. At T1, bullying victimization predicted fewer friends at T2, and fewer friends at T2 predicted higher bullying victimization at T3. These results most resemble a cyclical relation between bullying and likeability (Pozzoli & Gini, 2021; Sentse et al., 2015). Among girls, we found fewer significant relations than among boys. In the self-reported data, we found a positive relation between the number of friends and future bullying victimization; however, *more* friends predicted *higher* victimization in the future. This result seems in line with the suggestion by Faris and Felmlee (2014) that bullies can see popular children as rivals. This notion is also mentioned in the evolutionary theory of bullying, where it is suggested that bullying may be directed towards girls with whom the bullies are competing—a form of intrasexual competition (Volk et al., 2012).

Thus, overall, it seems that likeability has a stronger effect in boys, as it was found in a previous study (De Bruyn et al., 2010). Contextualizing this finding to the Indian setting, it could be that gender–role expectations of masculinity and femininity in India partially explain the present findings. For boys, overt aggressive behavior is accepted to be consistent with traditional gender-role expectations of masculinity in India (Khatri & Kupersmidt, 2003). Though speculative at this point, it could be that if among Indian boys aggression is normative, they might be more prone to reject other boys who cannot protect themselves, and be more willing to use aggression as a tool than girls, potentially explaining why there were more significant pathways for boys.

In the present study, we found more non-significant pathways than significant pathways, and results were not consistent between self- and peer-reports, nor across timepoints. Furthermore, though we found significant relations using both peer-reports and self-reports, it is important to note that effect sizes tended to be small. Therefore, among Indian adolescents, we emphasize caution against overgeneralizations. Though it could be true that girls with more friends become victims, or that victimized boys enter a downward spiral between bullying victimization and likeability, this seems

not to happen *by definition*. What explains the inconsistencies? We would argue that the inconsistent results concerning likeability and bullying victimization in our study, but also in other studies (Sentse et al., 2015) closely match a description of bullying as a complex dynamic system (Van Geert, 2011): a system of many interacting components, where the interacting components also change each other's properties. Complex dynamic systems are characterized by both orderliness and randomness (Van Geert, 2011), which is seemingly reflected in our analyses because for some timepoints; our theory and research inspired notions (transactional model and competition) are supported, and for other timepoints, they are not. Nevertheless, our results indicate that gender plays an important role in the explanation of likeability and victimization. Prior studies using social network analysis suggested that likeability and victimization normally occur in same-gender individuals, for instance, boys are more accepted but also more rejected by boys and tend to bully same-gender classmates (Veenstra et al., 2010); but other participant bullying roles, such as followers or defenders are more popular among other-gender peers (Pouwels, van Noorden et al., 2018). Likewise, adolescents tend to prefer to be together with others with similar status in the group (Sentse et al., 2014). All these factors and interactions increase the complexity of the group processes and should be considered in future studies to understand the longitudinal interplay between likeability and bullying victimization.

Even though we used a strong design with multiple measurements and both peer and self-reports of bullying victimization, some limitations should be kept in mind when interpreting the results of our study. First, our longitudinal design was limited to one year and three waves. Though technically enough to fit a cross-lagged model, it is possible that certain processes between bullying victimization and likeability only become visible when more waves are included, or when adolescents are followed for a longer period of time. Second, we already referred to complex dynamic systems, and then it is likely that we missed factors that may explain why relations between bullying and likeability appear at some timepoints, but not at others. A possible important but overlooked factor could be teacher behavior (see for example Burger et al., 2022). Lastly, a limitation related particularly to research in India is sometimes large and rowdy classrooms, high absenteeism, and relatively high dropout rates. We believe that these factors cannot be avoided when doing field research in India, especially when also including children with a lower SES in the sample (see also Thakkar et al., 2020) and thus maintain maximum transparency in the data collection process and analysis of the present study to clarify attrition and exclusion choices. In conclusion, among adolescents in India, we found some indication that bullying victimization and likeability could be related in a transactional model and that a high number of friends may put girls at a higher risk of bullying. However, these relations were neither very strong nor consistent across timepoints and likeability variables. This further emphasizes that in India, like in Western countries, bullying is a complex phenomenon, and we should be wary of overgeneralizing or oversimplifying the underlying processes.

Implications for Research and Practice

Most research on bullying has been conducted in Western countries; however, peer interaction processes might not necessarily resemble those in non-Western countries (Thakkar et al., 2021). Indeed, social behaviors involved in peer group interactions, such as social preference or likeability, seem to be highly susceptible to cultural variability (Veenstra & Laninga-Wijnen, 2022). To our knowledge, only one study has analyzed the role of peer status in Indian adolescents, but the cross-sectional design prevented the analysis of the longitudinal interplay among constructs over time (Pronk et al., 2017). Thus, the current study contributes to understand how likeability and victimization evolve and reinforce each other over time in a collectivistic culture such as India. Specifically, we found that victimization, peer acceptance, and peer rejection are relatively stable over time, which highlights the need of school interventions to target the problem as early as possible. Even though we did not find a consistent longitudinal pattern of bidirectional associations, it seems that victimization and likeability are related to some extent, which warrants more attention in future studies. Despite using longitudinal data to disentangle the bidirectional associations between likeability and victimization, several factors and interactions were not considered in the current study. Future studies should assess the complexity of bullying processes, including the impact of social status and gender on different participant bullying roles, as well as other factors related to teacher–student relationships or the school environment that might influence social behaviors.

Our findings have theoretical and practical implications. Regarding theoretical implications, the results shed light not only on the mechanisms underlying bullying victimization but also how they differentially impact social behaviors in boys and girls. This leads to relevant practical implications. Many researchers concur that antibullying programs do not produce large reductions in bullying in adolescents because bullying rewards individuals with more peer social status (Garandeau & Lansu, 2019; Volk et al., 2012). Understanding the impact of peer acceptance and rejection on bullying processes and how they may differ between girls and boys will contribute to identify individuals at risk of victimization and may make teachers more aware of the relevance of implementing activities that encourage peer support. Previous studies suggest that positive peer interactions might

reduce the risk of bullying victimization and increase psychological wellbeing (Halliday et al., 2022). Thus, future research must focus on designing school interventions that tackle peer status-related factors using a gender-based approach in order to increase the effectivity of intervention packages.

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Data Availability The data that support the findings of this study are available from the corresponding author upon reasonable request.

Declarations

Conflict of Interest The authors declare no conflict of interests.

References

Branson, C. E., & Cornell, D. G. (2009). A comparison of self and peer reports in the assessment of middle school bullying. *Journal of Applied School Psychology, 25*, 5–27. https://doi.org/10.1080/15377900802484133

Bukowski, W. M., & Hoza, B. (1989). Popularity and friendship: Issues in theory, measurement, and outcome. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development*. 15–45. John Wiley & Sons.

Burger, C., Strohmeier, D., & Kollerová, L. (2022). Teachers can make a difference in bullying: Effects of teacher interventions on students' adoption of bully, victim, bully-victim or defender roles across time. *Journal of Youth and Adolescence, 51*, 2312–2327. https://doi.org/10.1007/s10964-022-01674-6

Card, N. A., & Hodges, E. V. (2008). Peer victimization among schoolchildren: Correlations, causes, consequences, and considerations in assessment and intervention. *School Psychology Quarterly, 23*, 451–461. https://doi.org/10.1037/a0012769

Casper, D. M., Card, N. A., & Barlow, C. (2020). Relational aggression and victimization during adolescence: A meta-analytic review of unique associations with popularity, peer acceptance, rejection, and friendship characteristics. *Journal of Adolescence, 80*, 41–52. https://doi.org/10.1016/j.adolescence.2019.12.012

De Bruyn, E. H., Cillessen, A. H., & Wissink, I. B. (2010). Associations of peer acceptance and perceived popularity with bullying and victimization in early adolescence. *The Journal of Early Adolescence, 30*, 543–566. https://doi.org/10.1177/0272431609340517

De Vries, E., Kaufman, T. M., Veenstra, R., Laninga-Wijnen, L., & Huitsing, G. (2021). Bullying and victimization trajectories in the first years of secondary education: Implications for status and affection. *Journal of Youth and Adolescence, 50*, 1995–2006. https://doi.org/10.1007/s10964-020-01385-w

Donoghue, C., & Raia-Hawrylak, A. (2016). Moving beyond the emphasis on bullying: A generalized approach to peer aggression in high school. *Children & Schools, 38*, 30–39. https://doi.org/10.1093/cs/cdv042

Elgar, F. J., McKinnon, B., Walsh, S. D., Freeman, J., Donnelly, P. D., de Matos, M. G., Gariepy, G., Aleman-Díaz, A. Y., Pickett, W., Molcho, M., & Currie, C. (2015). Structural determinants of youth bullying and fighting in 79 countries. *Journal of Adolescent Health, 57*, 643–65. https://doi.org/10.1016/j.jadohealth.2015.08.007

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

Espelage, D. L., Holt, M. K., & Henkel, R. R. (2003). Examination of peer–group contextual effects on aggression during early adolescence. *Child Development, 74*, 205–22. https://doi.org/10.1111/1467-8624.00531

Faris, R., & Felmlee, D. (2014). Casualties of social combat: School networks of peer victimization and their consequences. *American Sociological Review, 79*, 228–257. https://doi.org/10.1177/0003122414524573

Garandeau, C. F., & Lansu, T. A. (2019). Why does decreased likeability not deter adolescent bullying perpetrators? *Aggressive Behavior, 45*, 348–359. https://doi.org/10.1002/ab.21824

Gazelle, H., Lundin, J. K. S., & Bosacki, S. L. (2022). Theory of mind, gender, gains in friendships versus peer acceptance and anxious solitude from middle childhood through early adolescence. *Social Development*. Advance online publication. https://doi.org/10.1111/sode.12654

Guy, A., Lee, K., & Wolke, D. (2019). Comparisons between adolescent bullies, victims, and bully-victims on perceived popularity, social impact, and social preference. *Frontiers in Psychiatry, 1*. https://doi.org/10.3389/fpsyt.2019.00868

Halliday, S., Taylor, A., Turnbull, D., & Gregory, T. (2022). The relationship between traditional and cyber bullying victimization in early adolescence and emotional wellbeing: A cross-sectional, population-based study. *International Journal of Bullying Prevention, 1–14*. https://doi.org/10.1007/s42380-022-00144-8

Hertz, M. F., Donato, I., & Wright, J. (2013). Bullying and suicide: A public health approach. *Journal of Adolescent Health, 53*, S1–S3.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: A Multidisciplinary Journal, 6*, 1–55. https://doi.org/10.1080/10705519909540118

Jaishankar, K. (2009). International perspectives on crime and justice. Cambridge Scholars Publishing.

Khatri, P., & Kupersmidt, J. B. (2003). Aggression, peer victimisation, and social relationships among Indian youth. *International Journal of Behavioral Development, 27*, 87–95. https://doi.org/10.1080/01650250244000056

Kochel, K. P., Ladd, G. W., & Rudolph, K. D. (2012). Longitudinal associations among youth depressive symptoms, peer victimization, and low peer acceptance: An interpersonal process perspective. *Child Development, 83*, 637–65. https://doi.org/10.1111/j.1467-8624.2011.01722.x

Krygsman, A., & Vaillancourt, T. (2017). Longitudinal associations between depression symptoms and peer experiences: Evidence of symptoms-driven pathways. *Journal of Applied Developmental Psychology, 51*, 20–34. https://doi.org/10.1016/j.appdev.2017.05.003

Longobardi, C., Ferrigno, S., Gullotta, G., Jungert, T., Thornberg, R., & Marengo, D. (2022). The links between students' relationships

with teachers, likeability among peers, and bullying victimization: the intervening role of teacher responsiveness. *European Journal of Psychology of Education, 37*, 489–506. https://doi.org/10.1007/s10212-021-00535-3

Malamut, S. T., van den Berg, Y. H., Lansu, T. A., & Cillessen, A. H. (2020). Dyadic nominations of bullying: Comparing types of bullies and their victims. *Aggressive Behavior, 46*, 232–243. https://doi.org/10.1002/ab.21884

McElhaney, K. B., Antonishak, J., & Allen, J. P. (2008). "They like me, they like me not": Popularity and adolescents' perceptions of acceptance predicting social functioning over time. *Child Development, 79*, 720–731. https://doi.org/10.1111/j.1467-8624.2008.01153.x

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*, 60–76.

Muthén, L. K., & Muthén, B. O. (2011). *Mplus user's guide* (7th ed.). Muthén & Muthén.

Neal, J. W., & Veenstra, R. (2021). Network selection and influence effects on children's and adolescents' internalizing behaviors and peer victimization: A systematic review. *Developmental Review, 59*, 100944. https://doi.org/10.1016/j.dr.2020..100944

Newcomb, A. F., & Bukowski, W. M. (1983). Social impact and social preference as determinants of children's peer group status. *Developmental Psychology, 19*, 856–867. https://doi.org/10.1037/0012-1649.19.6.856

Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: A meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. *Psychological Bulletin, 113*, 99–128. https://doi.org/10.1037/0033-2909.113.1.99

Orth, U., Clark, D. A., Donnellan, M. B., & Robins, R. W. (2021). Testing prospective effects in longitudinal research: Comparing seven competing cross-lagged models. *Journal of Personality and Social Psychology, 120*, 1013–1034. https://doi.org/10.1037/pspp0000358

Pedersen, S., Vitaro, F., Barker, E. D., & Borge, A. I. (2007). The timing of Middle-Childhood peer rejection and friendship: Linking early behavior to early-adolescent adjustment. *Child Development, 78*, 1037–1051. https://doi.org/10.1111/j.1467-8624.2007.01051.x

Pellegrini, A. D., & Long, J. D. (2002). A longitudinal study of bullying, dominance, and victimization during the transition from primary school through secondary school. *British Journal of Developmental Psychology, 20*, 259–328.

Pouwels, J. L., Salmivalli, C., Saarento, S., van den Berg, Y. H., Lansu, T. A., & Cillessen, A. H. (2018). Predicting adolescents' bullying participation from developmental trajectories of social status and behavior. *Child Development, 89*, 1157–1176. https://doi.org/10.1111/cdev.12794

Pouwels, J. L., van Noorden, T. H., Lansu, T. A., & Cillessen, A. H. (2018). The participant roles of bullying in different grades: Prevalence and social status profiles. *Social Development, 27*, 732–747. https://doi.org/10.1111/sode.12294

Pozzoli, T., & Gini, G. (2021). Longitudinal relations between students' social status and their roles in bullying: The mediating role of self-perceived social status. *Journal of School Violence, 20*, 76–88. https://doi.org/10.1080/1538822.202.1850462

Pronk, J., Lee, N. C., Sandhu, D., Kaur, K., Kaur, S., Olthof, T., & Goossens, F. A. (2017). Associations between Dutch and Indian adolescents' bullying role behavior and peer-group status: Cross-culturally testing an evolutionary hypothesis. *International Journal of Behavioral Development, 41*, 735–742. https://doi.org/10.1177/0165025416679743

Salmivalli, C. (2010). Bullying and the peer group: A review. *Aggression and Violent Behavior, 15*, 112–12. https://doi.org/10.1016/j.avb.2009.08.007

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

Scholte, R. H., Engels, R. C., Overbeek, G., De Kemp, R. A., & Haselager, G. J. (2007). Stability in bullying and victimization and its association with social adjustment in childhood and adolescence. *Journal of Abnormal Child Psychology, 35*, 217–228.

Scholte, R. H., Overbeek, G., Ten Brink, G., Rommes, E., De Kemp, R. A., Goossens, L., & Engels, R. C. (2009). The significance of reciprocal and unilateral friendships for peer victimization in adolescence. *Journal of Youth and Adolescence, 38*, 89–10. https://doi.org/10.1007/s10964-008-9287-6

Sentse, M., Dijkstra, J. K., Salmivalli, C., & Cillessen, A. H. (2013). The dynamics of friendships and victimization in adolescence: A longitudinal social network perspective. *Aggressive Behavior, 39*, 229–238. https://doi.org/10.1002/ab.21469

Sentse, M., Kiuru, N., Veenstra, R., & Salmivalli, C. (2014). A social network approach to the interplay between adolescents' bullying and likeability over time. *Journal of Youth and Adolescence, 43*, 1409–142. https://doi.org/10.1007/s10964-014-0129-4

Sentse, M., Kretschmer, T., & Salmivalli, C. (2015). The longitudinal interplay between bullying, victimization, and social status: Age-related and gender differences. *Social Development, 24*, 659–677. https://doi.org/10.1111/sode.12115

Sijtsema, J. J., Lindenberg, S. M., Ojanen, T. J., & Salmivalli, C. (2020). Direct aggression and the balance between status and affection goals in adolescence. *Journal of Youth and Adolescence, 49*, 1481–1491. https://doi.org/10.1007/s10964-019-01166-0

Smith, P. K., Sundaram, S., Spears, B. A., Blaya, C., Schäfer, M., & Sandhu, D. (2018). *Bullying, cyberbullying and student well-being in schools: Comparing European*. Cambridge University Press.

Thakkar, N., van Geel, M., & Vedder, P. (2021). A systematic review of bullying and victimization among adolescents in India. *International Journal of Bullying Prevention, 3*, 253–269. https://doi.org/10.1007/s42380-020-00081-4

Thakkar, N., van Geel, M., Malda, M., Rippe, R. C. A., & Vedder, P. (2020). Bullying and psychopathic traits: A longitudinal study with adolescents in India. *Psychology of Violence, 10*, 223–231. https://doi.org/10.1037/vio0000277

Van Geert, P. (2011). The contribution of complex dynamic systems to development. *Child Development Perspectives, 5*, 273–278. https://doi.org/10.1111/j.1750-8606.2011.00197.x

Veenstra, R., & Laninga-Wijnen, L. (2022). The prominence of peer interactions, relationships, and networks in adolescence and early adulthood. In L. J. Crockett, G. Carlo, & J. E. Schulenberg (Eds.), *Handbook of adolescent and young adult development*. American Psychological Association.

Veenstra, R., Lindenberg, S., Munniksma, A., & Dijkstra, J. K. (2010). The complex relation between bullying, victimization, acceptance, and rejection: Giving special attention to status, affection, and sex differences. *Child Development, 81*, 480–486. https://doi.org/10.1111/j.1467-8624.2009.01411.x

Veenstra, R., Lindenberg, S., Zijlstra, B. J., De Winter, A. F., Verhulst, F. C., & Ormel, J. (2007). The dyadic nature of bullying and victimization: Testing a dual-perspective theory. *Child Development, 78*, 1843–1854. https://doi.org/10.1111/j.1467-8624.2007.01102.x

Volk, A., Camilleri, J., Dane, A., & Marini, Z. (2012). Is adolescent bullying an evolutionary adaptation? *Aggressive Behavior, 38*, 222–238. https://doi.org/10.1002/ab.21418

Wiertsema, M., Vrijen, C., Ploeg, R., Sentse, M., & Kretschmer, T. (2023). Bullying perpetration and social status in the peer group: A meta-analysis. *Journal of Adolescence, 95*, 34–55. https://doi.org/10.1002/jad.12109