



The Relationship Between School Climate, Traditional Bullying, Cyberbullying and Self-Esteem Among Secondary School Students in Albania

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DOI: 10.26417/sbx3677

Abstract

Bullying, including traditional and cyber forms, represent a persistent psychosocial challenge within school environments and is associated with adverse psychological outcomes among adolescents. School social climate and self-esteem are recognized as key contextual and individual factors influencing bullying involvement. However, empirical evidence from Southeast European countries remains limited. This paper aims to examine the relationships among school social climate, traditional bullying, cyberbullying and self-esteem among secondary school students in Albania, with particular emphasis on the protective role of school climate. A cross-sectional correlational design was employed using a nationally representative sample of 1,056 adolescents from 42 lower and upper secondary schools across Albania. Data were collected using validated measures of school social climate, traditional bullying, cyberbullying and self-esteem. School social climate was positively associated with adolescents' self-esteem and negatively associated with traditional bullying and cyberbullying. Bullying involvement was consistently associated with lower self-esteem. A positive school social climate functions as a protective factor against bullying involvement and diminished self-esteem. School-based interventions aimed at strengthening school climate and adolescents' self-esteem may contribute meaningfully to bullying prevention and psychological well-being.

Keywords: school social environment, peer victimization, cyber victimization, psychological well-being, secondary school students, Southeast Europe

1. Introduction

Bullying is one of the most prevalent psychosocial problems affecting adolescents worldwide and has been widely recognized as a major public health and educational concern. Traditional bullying includes physical, verbal and relational aggression occurring in face-to-face contexts, whereas cyberbullying refers to aggressive behaviours enacted through digital technologies such as social media, messaging applications and online platforms.

Both forms of bullying have been associated with a range of negative outcomes, including anxiety, depression, academic disengagement, social withdrawal and reduced self-esteem (Kowalski et al., 2019; Smith & Steffgen, 2020). Adolescence is a developmental stage characterized by heightened sensitivity to peer evaluation and the need for social belonging.

During this period, schools represent a central social context in which adolescents develop interpersonal relationships, internalize social norms and construct their self-concept. School social climate refers to students shared perceptions of safety, interpersonal relationships, fairness and institutional support within the school environment (Thapa et al., 2013). A positive school climate has been consistently linked to improved academic outcomes, enhanced psychological well-being and reduced involvement in bullying behaviours (Dorio et al., 2020).

Self-esteem plays a crucial role in the bullying dynamic. Adolescents with low self-esteem are more vulnerable to victimization and may also engage in bullying as a maladaptive coping strategy or as a means of gaining social status (Tsaousis, 2016). Conversely, supportive and inclusive school environments can foster positive self-evaluations and resilience (Arslan, 2021).

Despite extensive international research, empirical studies examining the interplay between school climate, bullying and self-esteem in Albania remain limited. The implementation of anti-bullying educational programs has been shown to improve adolescents' levels of self-esteem and reduce aggressive behaviours. Moreover, structural interventions within the school environment positively influence not only the reduction of bullying but also students' emotional well-being (Al Ali et al., 2025).

Given the ongoing educational reforms and increasing digital engagement among Albanian youth, understanding these relationships is essential. The present study addresses this gap by examining the associations among school social climate, traditional bullying, cyberbullying and self-esteem among secondary school students in Albania.

2. Literature Review

2.1. School Climate and Bullying

A substantial body of research has identified school climate as a critical contextual determinant of bullying behaviour. School climate refers to students' perceptions of safety, interpersonal relationships, teaching and learning practices and the broader institutional environment (Cohen et al., 2009).

Early empirical work demonstrated that schools characterized by clear behavioural expectations, mutual respect and consistent disciplinary practices report lower levels of disorder and aggression (Welsh, 1999). Subsequent research confirmed that supportive and well-structured school environments are associated with reduced bullying perpetration and victimization (Bradshaw et al., 2014; Wang et al., 2013).

Furthermore, the promotion of a balanced school social climate and a strong sense of belonging within the school community significantly contributes to the reduction of bullying behaviours (Huang et al., 2024). From a socio-ecological perspective, bullying is embedded within complex relational systems and school climate functions as a normative framework that either reinforces or discourages aggressive behaviour (Espelage & Swearer, 2010). Empirical evidence indicates that inadequate supervision, inconsistent rule enforcement and weak teacher–student relationships increase the likelihood of bullying involvement (Totura et al., 2009).

Similarly, unclear anti-bullying policies and limited institutional awareness contribute to elevated cyberbullying rates (Benders, 2012). The promotion of specific elements of school social climate—such as positive student–student and student–teacher relationships, peer support and constructive interactions among students has been found to be negatively associated with bullying and other problematic student behaviours, including engagement in antisocial conduct. These findings highlight the importance of fostering a positive and supportive school climate to reduce bullying and mitigate students' risk behaviours within the school environment (Wang et al., 2025).

Recent research further refines the understanding of how specific climate dimensions' influence bullying dynamics. A meta-analysis by Zhang et al. (2024) reported a significant negative association between positive school climate and cyberbullying victimization across cultural contexts, with stronger protective effects observed among younger adolescents. These findings reinforce the protective role of teacher support, peer connectedness and perceived fairness.

However, emerging evidence suggests that school climate is multidimensional and not uniformly protective. Li et al. (2024) found that competitive school climates characterized by heightened academic pressure and peer rivalry were indirectly associated with increased bullying through diminished school belonging. In contrast, Chen et al. (2024) demonstrated that higher levels of perceived teacher support and opportunities for autonomy were significantly associated with lower cyberbullying

involvement. Moreover, Garcia-Moya et al. (2025) showed that positive school climate perceptions were linked to better adolescent mental health outcomes, indicating that school climate functions as a broader developmental asset.

Collectively, classical and contemporary research positions school climate as a systemic and modifiable protective factor in bullying prevention, particularly when schools actively cultivate inclusivity, fairness and relational trust.

2.2. Bullying and Self-Esteem

Self-esteem is widely recognized as a central psychological correlate of bullying involvement. Adolescence represents a critical period for identity development and self-concept consolidation, rendering self-esteem particularly sensitive to peer evaluation and social comparison (Harter, 2012).

Adolescents involved in cyberbullying, whether as victims or perpetrators, report significantly lower self-esteem compared to uninvolved peers (Patchin & Hinduja, 2010). Low levels of self-esteem constitute a risk factor for student victimization both in the physical school environment and in digital contexts, underscoring the importance of developing interventions that strengthen self-esteem as a core component of traditional and cyberbullying prevention policies (Agustiniingsih et al., 2024). Victimization has been consistently associated with emotional distress, social withdrawal and diminished self-worth.

The relationship between self-esteem and bullying is complex and multidirectional. While low self-esteem is more strongly associated with victimization, perpetrators may exhibit fragile or unstable self-concepts rather than uniformly low self-esteem (Menesini et al., 2013; Salmivalli, 2010). A meta-analysis by Tsaoasis (2016) confirmed that self-esteem is significantly related to both bullying perpetration and victimization, although the association is stronger for victims. Students with low self-esteem report heightened sensitivity to victimization and greater difficulty coping with social pressure. Interventions aimed at developing social and emotional competencies and enhancing adolescents' self-esteem may serve as preventive mechanisms against bullying within the school environment (Skhail & Aldoori, 2025).

Recent experimental and longitudinal research further extends these findings. Martínez-Martínez et al. (2024) demonstrated that a self-esteem enhancement intervention significantly reduced bullying victimization, suggesting that strengthening self-concept may function as an effective preventive strategy. Abdel-Hameed et al. (2024) found that adolescents with communication disorders who experienced bullying reported markedly lower self-esteem, highlighting the amplified psychological risks for vulnerable populations. Longitudinal evidence from Liu et al. (2025) indicated that self-esteem mediated the relationship between bullying victimization and subsequent mental health problems. Similarly, Wang and Zhao (2025) reported that self-esteem, alongside parent-child relationship quality, mediated the psychological impact of victimization on adolescents.

Taken together, contemporary evidence suggests that self-esteem functions simultaneously as a risk factor, mediator and potential intervention target within bullying dynamics. When considered alongside school climate, these findings support a socio-ecological framework in which contextual and individual factors interact to shape adolescents' experiences of bullying.

3. Methodology

3.1. Research Design and Participants

This study employed a cross-sectional and school-based survey design aimed at generating nationally representative estimates among adolescents. The design followed international methodological standards for population-based health and behavioral research.

3.1.1. Target Population

The target population comprised approximately 216,000 adolescents enrolled in lower and upper secondary education nationwide during the study period. Of these, approximately 126,000 students were enrolled in lower secondary education (grades 6–9; ages 12–15) and approximately 90,000 students were enrolled in upper secondary education (grades 10–12; ages 16–18).

The proportion of adolescents in lower secondary education was approximately 55%, while 45% were enrolled in upper secondary education. Based on this distribution, the study sample was proportionally allocated, resulting in a selected sample of 1,150 adolescents from Albanian secondary schools.

3.1.2. Sampling Strategy

A stratified multistage cluster sampling design was employed to ensure national representativeness while preserving operational and logistical feasibility.

3.1.3. Stratification

The sampling frame was stratified according to the following criteria:

1. Geographic region (administrative districts/counties)
2. Area of residence (urban vs. rural)
3. Educational level (lower vs. upper secondary)
4. Gender distribution

3.1.4. Primary Sampling Units (PSUs)

Schools were defined as primary sampling units (PSUs). Within each stratum, schools were selected using probability proportional to size (PPS) sampling to ensure that larger institutions had a proportionally higher likelihood of selection (Lohr, 2022).

3.1.5. Secondary Sampling Units

Within the selected schools, classes were randomly selected using simple random sampling procedures. All students within the selected classes were invited to participate. This approach is consistent with large-scale international adolescent surveys, such as those conducted by the World Health Organization (e.g., the *Health Behaviour in School-aged Children* study).

3.1.6. Sample Size Determination

The minimum required sample size was calculated using the standard formula for estimating proportions in large populations. The calculation assumed:

- a 95% confidence level ($Z = 1.96$)
- maximum variability ($p = 0.50$) and
- a margin of error of 5% ($e = 0.05$).

Based on these parameters, the estimated minimum sample size was 384 participants.

To account for clustering effects inherent in multistage sampling, the design effect was conservatively estimated at 1.5–2.0 (Kish, 1965), increasing the adjusted sample size to approximately 600–800 participants. An additional 10–15% was included to compensate for potential non-response, resulting in a final target sample of approximately 900–1,100 adolescents.

In total, 1,056 students completed the questionnaire and were included in the final analyses.

3.2. Instruments

3.2.1. Self-Esteem

Self-esteem was measured using the Rosenberg Self-Esteem Scale (Rosenberg, 1995), a widely used instrument with well-established reliability and validity. The scale consists of 10 items rated on a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree). Higher scores indicate higher levels of self-esteem.

3.2.2. School Social Climate

School social climate was assessed using a standardized self-report scale measuring students' perception of peer relationships, teacher support, fairness and the overall school environment. Items were adapted from Varela et al. (2019) and rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Higher scores indicated a more positive perception of school climate. Reliability analysis demonstrated high internal consistency (Cronbach's $\alpha = .90$).

3.2.3. Traditional Bullying

Traditional bullying involvement (victimization and perpetration) was measured using a validated questionnaire assessing behaviours such as physical aggression, verbal harassment and social exclusion (Olweus, 1996). Participants reported the frequency of each behaviour during the past six months using a 5-point scale (1 = never to 5 = several times a week).

3.2.4. Cyberbullying

Cyberbullying victimization and perpetration were assessed using a validated measure capturing online harassment, threats and social media exclusion (Olweus, 1996). Frequency was measured using a 5-point scale (1 = never to 5 = several times a week).

Exploratory factor analysis (EFA) supported a unidimensional factor structure for each scale, indicating that items loaded onto their respective latent constructs. Reliability analyses demonstrated acceptable internal consistency, with Cronbach's alpha (α) coefficients above 70.

The instruments were translated into Albanian by two independent researchers using a translation–review procedure to ensure linguistic accuracy. The questionnaire was subsequently reviewed by a group of adolescents to assess clarity and content validity. Prior to the main data collection, the instrument was piloted with a sample of 100 adolescents who were not included in the final study sample.

Internal consistency coefficients were as follows: self-esteem ($\alpha = .73$), school climate ($\alpha = .90$), traditional bullying ($\alpha = .70$) and cyberbullying ($\alpha = .78$).

3.3. Data collection

Data were collected using standardized, self-administered questionnaires during regular school hours. Field researchers received structured training to ensure procedural consistency. Anonymity and confidentiality were emphasized to minimize social desirability bias.

3.4. Ethical Considerations

The study protocol was reviewed and approved by the relevant institutional ethics committee. All procedures adhered to internationally recognized ethical principles, including those outlined in the Declaration of Helsinki of the World Medical Association. Participation was voluntary and data were processed in compliance with applicable data protection regulations.

3.5. Data Analysis

Data were analyzed using SPSS. Pearson correlation analyses were conducted to examine the associations among school social climate, bullying variables and self-esteem. The assumptions underlying Pearson correlation, including linearity and

approximate normality, were assessed using scatterplots and skewness/kurtosis statistics. Statistical significance was set at $p < .05$. Effect sizes were interpreted in accordance with Cohen’s (1988) benchmarks.

4. Results

4.1. School Climate and Self-Esteem

A significant positive association was found between school social climate and adolescents’ self-esteem ($r = .190, p < .05$). This positive relationship between the variables is presented in Table 1.

Table 1. Correlation Between School Social Climate and Adolescents’ Self-Esteem

No	Variables	1	2
1	School social climate	1	.190**
2	Self-esteem		1

*Note. $p < .05$.

The correlation analysis indicates a positive relationship between school social climate and adolescents’ self-esteem ($r = .190, p < .05$). The interpretation of this finding suggests that higher levels of perceived school social climate are associated with higher levels of self-esteem among adolescents in Albanian secondary schools.

4.2. School Climate and Traditional Bullying

School climate was negatively associated with traditional bullying victimization by peers ($r = -.232, p < .05$), victimization by teachers ($r = -.245, p < .05$) and perpetration ($r = -.203, p < .05$). The statistical data regarding the relationship between school social climate and traditional bullying are presented in Table 2.

Table 2. Correlations Between School Social Climate and traditional Bullying

No	Variables	1	2	3	4
1	School social climate	1	-.232**	-.245**	-.203**
2	Victim (peers)		1	.363**	.253**
3	Victim (teachers)			1	.316**
4	Perpetrator				1

Note. $p < .05$.

The results of the Pearson correlation test indicated a significant negative relationship ($r = -.23, p < .05$) between the level of school social climate and

adolescents' victimization from traditional bullying perpetrated by peers. A significant negative association ($r = -.24, p < .05$) was also observed between school social climate and victimization from traditional bullying perpetrated by teachers. Furthermore, a negative relationship was identified between school social climate and adolescents' involvement as perpetrators of traditional bullying.

4.3. School Climate and Cyberbullying

Negative associations were observed between school climate and cyberbullying victimization ($r = -.173, p < .05$) as well as cyberbullying perpetration ($r = -.168, p < .05$). The correlation analysis examining the relationship between school social climate and cyberbullying is presented in Table 3.

No	Variables	1	2	3
1	School Social Climate	1	-.173**	-.168**
2	Cyberbullying victim		1	.320**
3	Cyberbullying perpetrator			1

****Note.** Correlation is significant at the 0.01 level (2-tailed). $p < .05$.

The correlation analysis revealed a significant negative association ($r = -.173, p < .05$) between school social climate and adolescents' victimization from cyberbullying perpetrated by peers. A significant negative relationship ($r = -.168, p < .05$) was also found between school social climate and adolescents' involvement as perpetrators of cyberbullying.

These results indicate that higher levels of perceived school social climate are associated with lower levels of both cyberbullying victimization and perpetration among adolescents.

4.4. Bullying and Self-Esteem

All forms of bullying involvement were negatively associated with self-esteem. The results of the correlation analysis examining these relationships are presented in Table 4.

Variable		1	2	3	4	5	6
1	Victim (Traditional Peers)	1					
2	Victim (Traditional teachers)	.363**	1				
3	Perpretrator (traditional)	.253**	.316**	1			
4	Victim (Cyberbullying)	.328**	.387**	.178**	1		
5	Perpretrator (Cyberbullying)	.213**	.298**	.455**	.320**	1	
6	Self – Esteem	-.204**	-.221**	-.117**	-.213**	-.168**	1

*Note. $p < .05$.

The results of the Pearson correlation analysis indicated a significant negative relationship between adolescents' victimization from traditional bullying perpetrated by peers and their level of self-esteem ($r = -.204, p < .05$). A relatively stronger negative association was observed between self-esteem and victimization from traditional bullying perpetrated by teachers ($r = -.221, p < .05$). Additionally, a significant negative relationship was found between self-esteem and cyberbullying victimization ($r = -.213, p < .05$).

These findings suggest that higher levels of bullying victimization, whether perpetrated by peers or teachers, or occurring in digital contexts, are associated with lower levels of self-esteem among adolescents.

5. Discussions and conclusions

The present study advances the international literature by examining the associations among school climate, traditional bullying, cyberbullying and self-esteem within a nationally representative sample of adolescents in Albania, i.e., a socio-educational context that remains underrepresented in bullying research.

Consistent with social-ecological theory (Espelage & Swearer, 2010), the findings indicate that school climate operates as a contextual factor associated with both interpersonal aggression and psychological adjustment. Although effect sizes were generally small to moderate, the overall pattern of relationships was theoretically coherent and cross-culturally consistent.

5.1. School climate as a contextual regulatory mechanism

The negative associations observed between school climate and traditional bullying reinforce a substantial body of research conducted in North American and Western European contexts (Bradshaw et al., 2014; Wang et al., 2013). A supportive and fair school environment appears to function as a normative regulatory system, shaping students' behavioral expectations and standards of peer interaction. From a social-ecological perspective, school climate may influence bullying through multiple pathways, including perceived safety, relational trust and institutional legitimacy.

However, the magnitude of associations in the present study was somewhat smaller than those typically reported in highly institutionalized anti-bullying systems, particularly in Nordic countries. This difference warrants theoretical consideration. In educational systems where anti-bullying policies are systematically implemented, continuously monitored and embedded within teacher training frameworks, school climate likely operates as both a perceptual and structural construct. In contrast, in transitional contexts such as Albania, school climate may be experienced primarily at the relational level rather than as a formally institutionalized governance mechanism. Consequently, its regulatory impact may be present but comparatively attenuated.

Importantly, the cross-cultural consistency in the direction of associations, despite contextual variation in magnitude, suggests that the relationship between school climate and bullying reflects a robust psychosocial process rather than a culturally bounded phenomenon.

5.2. Differential patterns in traditional and cyberbullying

The weaker association between school climate and cyberbullying compared to traditional bullying is theoretically aligned with the structural differences between offline and online aggression. Traditional bullying unfolds within physically bounded school settings where adult supervision, institutional rules and peer visibility are salient. Cyberbullying, by contrast, extends beyond spatial and temporal school boundaries and is shaped by anonymity, digital disinhibiting and audience amplification processes (Hinduja & Patchin, 2015).

The findings suggest that while school climate may indirectly influence online norms, its regulatory capacity diminishes when aggression occurs within decentralized digital environments. In contexts where digital citizenship education is systematically integrated into school curricula, the spillover effect of school climate into online behavior may be stronger.

The comparatively modest association observed in the Albanian context may therefore reflect the rapid expansion of adolescent digital engagement without parallel institutional digital governance structures. Conceptually, these results support the framing of cyberbullying as a hybrid phenomenon embedded at the intersection of school ecology and digital ecosystems, requiring integrated preventive strategies.

5.3. School climate and self-esteem: An ecological interpretation

The positive association between school climate and self-esteem is consistent with developmental models emphasizing adolescents' heightened sensitivity to social evaluation and belonging (Harter, 2012). A positive school climate may enhance self-esteem by fostering inclusion, fairness and recognition, which are critical components of adolescent identity formation.

Nevertheless, the modest magnitude of this association suggests that self-esteem is shaped by multiple ecological systems beyond the school environment. In collectivist or family-centered cultural contexts, family dynamics and community norms may exert comparatively stronger influences on adolescents' global self-evaluations. Thus, while school climate contributes meaningfully to psychological adjustment, its role should be conceptualized within a multilayered ecological framework rather than as a dominant determinant.

5.4. Theoretical and cross-cultural contributions

This study contributes to the field in several important ways.

First, it addresses a significant geographic gap in bullying research by providing nationally representative evidence from Southeast Europe. The concentration of prior empirical work in Western and Nordic countries has limited the cross-cultural generalizability of theoretical models. The present findings demonstrate that the structural relationships linking school climate, bullying involvement and self-esteem are replicable within a transitional socio-educational system, thereby strengthening theoretical external validity.

Secondly, by integrating traditional bullying, cyberbullying and self-esteem within a unified analytical framework, the study bridges relational and psychological domains that are often examined separately. This integrative perspective enables comparative evaluation of contextual influences across both behavioral and intrapersonal outcomes.

Thirdly, the findings underscore the public health relevance of small effect sizes. As noted in methodological scholarship (Cohen, 1988; Ferguson, 2009), small but consistent associations may produce meaningful cumulative benefits when translated into school-wide prevention and policy interventions.

5.5. Limitations and Directions for Advanced Research

Several limitations should be acknowledged.

First, the cross-sectional design precludes causal inference and reciprocal relationships among school climate, bullying involvement and self-esteem remain plausible. Longitudinal designs are required to clarify developmental sequencing and potential bidirectional pathways.

Secondly, reliance on self-report measures introduces the possibility of common method variance and social desirability bias. Employing multi-informant approaches, such as teacher reports, peer nominations or administrative records, would strengthen measurement validity and reduce shared method effects.

Thirdly, although the sample was nationally representative, the nested structure of students within schools was not modeled analytically. Future research utilizing multilevel modeling techniques would enable differentiation between individual-level perceptions of school climate and school-level contextual effects, thereby enhancing ecological interpretation.

Finally, cultural variability in the conceptualization and reporting of bullying behaviors may influence observed effect sizes. Cross-national measurement invariance testing would further strengthen comparative scholarship and improve the generalizability of findings.

5.6. Implications for Policy and Intervention in Albania

The findings have important implications for educational policy in Albania. Even modest associations suggest that enhancing school climate may contribute to reductions in bullying involvement and improvements in adolescents' psychological well-being. However, climate enhancement should be conceptualized as a systemic intervention encompassing teacher training, consistent rule enforcement and meaningful student participation in norm-setting processes.

Given the comparatively weaker association with cyberbullying, policy initiatives should integrate digital citizenship education and explicit online conduct frameworks into broader school climate strategies. Coordinated efforts across school, family and digital environments are likely to produce stronger and more sustainable preventive effects.

The present study provides empirical evidence that school social climate and self-esteem are key correlates of both traditional and cyberbullying among Albanian adolescents. School climate emerged as a significant contextual factor associated with adolescents' involvement in bullying, both offline and online, as well as with their self-esteem. These findings offer cross-cultural evidence that school climate functions as a meaningful contextual correlate of both bullying involvement and adolescent psychological adjustment within a transitional Southeast European educational system.

Although the magnitude of associations was modest, their consistency across relational and psychological outcomes underscores the ecological relevance of school climate as a systemic lever for intervention. Strengthening school climate and supporting adolescents' self-esteem should therefore be central components of school-based bullying prevention efforts.

More broadly, this study contributes to the diversification of the global bullying literature by demonstrating that core theoretical associations replicate beyond Western and Nordic contexts. At the same time, contextual variations in effect sizes highlight the importance of institutional maturity, cultural norms and digital governance structures in shaping the strength of these relationships.

Advancing bullying prevention efforts in Albania will require integrative, multilevel strategies that combine school climate enhancement with structured digital citizenship policies and longitudinal evaluation frameworks.

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