

# The Relationship Between the School Social-Emotional Climate and Student Bullying Through the Mediating Variable of Alexithymia

Nahid. Sharifnia<sup>1</sup>, Marjan. Alizadeh<sup>1</sup>, Fayiq. Yousef<sup>2\*</sup>

<sup>1</sup> Department of Psychology, CT.C., Islamic Azad University, Tehran, Iran

<sup>2</sup> Department of Clinical Psychology, Faculty of Medicine, Kurdistan University of Medical Sciences, Sanandaj, Iran

\* Corresponding author email address: fayiq.yousefi@muk.ac.ir

### Article Info

#### Article type:

Original Research

#### How to cite this article:

Sharifnia, N., Alizadeh, M., & Yousefi, F. (2026). The Relationship Between the School Social-Emotional Climate and Student Bullying Through the Mediating Variable of Alexithymia. *Psychological Research in Individuals with Exceptional Needs*, 4(2), 1-11.

<https://doi.org/10.61838/kman.prien.5496>



© 2026 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

### ABSTRACT

The present study aimed to determine the relationship between the school social-emotional climate and student bullying through the mediating variable of alexithymia. In terms of purpose, this study was applied research, and in terms of nature and method, it was a descriptive-correlational study. The statistical population included all secondary school students in Educational Districts 1 and 3 of Tehran. The sample size was determined using the G\*Power software. The sampling method employed in this study was systematic random sampling. The participants completed the Illinois Bullying Questionnaire, the Toronto Alexithymia Scale developed by Graeme J. Taylor and colleagues (1994), and the School Social-Emotional Climate Questionnaire developed by Karami et al. (2009). The findings indicated that the path coefficient between the school social-emotional climate and students' alexithymia (-0.39) was negative, and 15% of the variance in students' alexithymia was explained by the school social-emotional climate. Furthermore, there was a positive and significant path coefficient between alexithymia (0.36) and student bullying, and overall, the indirect path was statistically significant.

**Keywords:** School social-emotional climate, bullying, alexithymia.

## 1. Introduction

Bullying is recognized as one of the most pervasive and harmful psychosocial problems among children and adolescents and has become a major concern in educational systems and mental health research worldwide. Contemporary perspectives define bullying as a repetitive form of aggressive behavior characterized by an imbalance of power between the perpetrator and the victim, occurring

in physical, verbal, relational, or cyber forms (Espelage & Swearer, 2003; Smith et al., 2019). During adolescence, bullying behaviors are associated with a broad range of negative outcomes, including emotional distress, academic decline, social maladjustment, depression, anxiety, low self-esteem, and long-term interpersonal difficulties (Gaffney et al., 2019; Liu et al., 2024). Recent evidence also suggests that bullying and victimization are increasingly influenced

by emotional vulnerabilities, maladaptive coping mechanisms, and deficiencies in socio-emotional competencies (Manzoor et al., 2026; Rodríguez-Hidalgo et al., 2025). Consequently, identifying the psychosocial and emotional determinants of bullying among adolescents has become a critical priority in developmental and educational psychology.

School represents one of the primary social environments in which adolescents develop interpersonal relationships, emotional competencies, and behavioral norms. The quality of the school environment, particularly the social-emotional climate of the school, plays a fundamental role in shaping students' psychological well-being and behavioral adjustment (Kalkan & Dagli, 2021; Maxwell et al., 2017). School social-emotional climate refers to students' perceptions of emotional support, interpersonal relationships, fairness, acceptance, autonomy, safety, and the overall quality of interactions within the educational environment (KarimZade & Mohseni, 2006). A positive school climate fosters emotional security, social connectedness, empathy, and adaptive coping strategies, whereas a negative climate contributes to emotional dysregulation, aggression, social withdrawal, and maladaptive behaviors such as bullying (Coelho & Sousa, 2021; Yun, 2020). Researchers have consistently emphasized that students who perceive their school environment as supportive and emotionally secure are less likely to engage in bullying behaviors and more likely to demonstrate prosocial conduct and social responsibility (Saeedi et al., 2021; Shirani et al., 2021).

The influence of school climate on aggressive and bullying behaviors can be explained through multiple psychological and social mechanisms. Social learning perspectives suggest that adolescents internalize behavioral norms and emotional patterns through interactions with peers, teachers, and school authorities. Therefore, schools characterized by supportive relationships and emotional responsiveness tend to reduce hostility and interpersonal aggression (Espelage & Holt, 2013). In contrast, emotionally cold or conflict-ridden school environments may normalize aggression, weaken emotional bonds, and increase the probability of bullying behaviors. Empirical studies have demonstrated that poor school climate is significantly associated with bullying perpetration, victimization, school burnout, emotional maladjustment, and reduced academic engagement (Kalkan & Dagli, 2021; Maxwell et al., 2017). Moreover, interventions targeting school climate have shown meaningful reductions in bullying prevalence and

improvements in students' emotional and social functioning (Gaffney et al., 2019).

Although environmental factors such as school climate play a significant role in bullying behaviors, contemporary research increasingly highlights the importance of emotional processing variables in understanding adolescents' aggressive conduct. One of the most important constructs in this domain is alexithymia. Alexithymia is conceptualized as a multidimensional personality construct involving difficulty identifying feelings, difficulty describing emotions, and an externally oriented cognitive style (O'Dowd, 2020). Individuals with alexithymia experience impairments in emotional awareness and emotional expression, leading to ineffective emotional regulation and maladaptive interpersonal functioning (Kim et al., 2020). Adolescents with high levels of alexithymia may struggle to understand both their own emotions and the emotions of others, thereby increasing emotional frustration, impulsive reactions, and aggressive tendencies.

The role of alexithymia in externalizing behaviors has received increasing empirical attention in recent years. Studies have shown that alexithymia is associated with emotional dysregulation, psychosomatic symptoms, interpersonal conflicts, aggression, and maladaptive coping strategies (Conti et al., 2019; Mazzone & Camodeca, 2018). In the context of bullying, adolescents who have difficulty processing emotions may use aggression as a compensatory mechanism for unresolved emotional tension or impaired emotional communication. Several studies have demonstrated a significant positive relationship between alexithymia and both traditional and cyberbullying behaviors (Wachs et al., 2017; Wachs & Wright, 2018). Similarly, research has indicated that difficulties in emotional awareness and emotional regulation significantly predict bullying perpetration among adolescents (Shabahang et al., 2019). These findings suggest that emotional deficits may function as a core psychological mechanism underlying aggressive peer interactions.

Another important aspect of alexithymia is its association with empathy deficits and impaired social cognition. Adolescents with alexithymic characteristics often exhibit lower levels of empathic understanding and reduced ability to interpret social-emotional cues, which may facilitate aggressive or bullying behaviors toward peers (Sen Demirdogen et al., 2022). Research examining emotional competencies in bullying contexts has shown that empathy, emotional regulation, and socio-emotional awareness are protective factors against aggression and victimization

(Asghari Sharbiyani & Basharpour, 2021; Shirani et al., 2021). Conversely, emotional disconnection and emotional suppression increase vulnerability to hostile interactions and antisocial behavior. These findings underscore the importance of examining emotional variables as mediators linking environmental experiences and behavioral outcomes.

Theoretical frameworks in developmental psychopathology also support the mediating role of emotional processes between contextual experiences and behavioral functioning. According to socio-emotional development theories, adolescents' emotional competencies are shaped through continuous interactions with family, school, and peer systems. Supportive environments facilitate emotional identification and emotional expression, whereas invalidating or emotionally unsupportive contexts contribute to emotional confusion and dysregulation. In school settings, students who experience acceptance, fairness, and emotional support may develop stronger emotional awareness and interpersonal sensitivity, thereby reducing the likelihood of engaging in bullying behaviors (Coelho & Sousa, 2021; Kalkan & Dagli, 2021). In contrast, negative school climates may intensify emotional suppression, social alienation, and maladaptive coping responses.

Previous empirical investigations have provided substantial evidence for the independent relationships among school climate, emotional competencies, alexithymia, and bullying behaviors. Studies have shown that positive school climate predicts lower rates of bullying and greater school belongingness (Kalkan & Dagli, 2021; Maxwell et al., 2017). Other studies have demonstrated that emotional competencies and emotional intelligence significantly reduce aggressive behaviors and improve adolescents' social adjustment (Nikooyeh E & Mohammadi Aria, 2025; Sarzosa & Urzua, 2021). Additionally, research on cyberbullying indicates that emotional vulnerabilities and ineffective coping styles increase adolescents' susceptibility to aggressive online behaviors (Manzoor et al., 2026; Rodríguez-Hidalgo et al., 2025). Research focusing specifically on alexithymia has consistently identified significant associations between emotional processing deficits and bullying perpetration (Shabahang et al., 2019; Wachs et al., 2017).

Despite these findings, several gaps remain in the existing literature. First, many previous studies have examined bullying primarily from behavioral or social perspectives while paying insufficient attention to emotional mediating mechanisms. Second, although school climate and

alexithymia have each been independently linked to bullying, fewer studies have investigated the mediating role of alexithymia in the relationship between school social-emotional climate and bullying behaviors. Third, much of the available literature has focused on cyberbullying or Western populations, limiting the generalizability of findings to adolescents in other sociocultural contexts (Manzoor et al., 2026; Rodríguez-Hidalgo et al., 2025). Moreover, bullying behaviors among adolescents in educational settings remain influenced by contextual, cultural, and interpersonal dynamics that necessitate further investigation in non-Western societies.

In recent years, researchers have increasingly emphasized the role of socio-emotional skills in preventing bullying and promoting healthy peer relationships. Emotional awareness, empathy, emotional regulation, and social connectedness are now considered essential protective factors against adolescent aggression (Coelho & Sousa, 2021; Yun, 2020). School-based interventions designed to improve emotional climate and strengthen social-emotional competencies have demonstrated effectiveness in reducing bullying behaviors and enhancing psychological well-being (Gaffney et al., 2019). These findings highlight the necessity of understanding not only direct relationships between environmental and behavioral variables but also the psychological pathways through which school experiences influence adolescent behavior.

Furthermore, the increasing prevalence of bullying in both traditional and digital contexts has intensified concerns regarding adolescents' emotional adjustment and interpersonal functioning. Cross-cultural research indicates that bullying patterns may vary according to gender, cultural norms, emotional competencies, and social structures (Smith et al., 2019). Adolescents who lack emotional awareness or experience difficulty interpreting interpersonal situations may become more vulnerable to aggressive interactions and maladaptive social behaviors. From this perspective, alexithymia may serve as a critical explanatory mechanism linking environmental stressors to bullying behaviors. Understanding these mechanisms may contribute to the development of more effective prevention and intervention programs targeting emotional functioning within school environments.

Another important issue concerns the relational architecture of school interactions and the broader psychosocial context in which adolescent behaviors emerge. School climate influences not only students' academic outcomes but also their perceptions of justice, interpersonal

trust, emotional safety, and social belonging (Xing Tan, 2023). Positive relational structures within schools can strengthen emotional resilience and social adaptation, whereas negative relational dynamics may reinforce hostility and emotional detachment. Therefore, examining bullying behaviors through an integrated socio-emotional framework provides a more comprehensive understanding of adolescent psychosocial functioning.

Considering the significant prevalence of bullying among adolescents, the psychological consequences associated with aggressive peer interactions, and the growing evidence regarding the importance of emotional competencies and school climate, investigating the mediating role of alexithymia appears theoretically and practically important. Identifying emotional mechanisms that connect school social-emotional climate to bullying behaviors may provide valuable insights for educational psychologists, school counselors, and mental health professionals seeking to design effective prevention and intervention strategies. Therefore, the present study aimed to determine the relationship between school social-emotional climate and student bullying through the mediating role of alexithymia.

## 2. Methods and Materials

### 2.1. Study Design and Participants

Selecting an appropriate research method is considered the cornerstone of any scientific study, because disregarding the compatibility between the research method and the research question seriously undermines the achievement of the study objectives. In terms of purpose, the present study was applied research, and in terms of nature and method, it was a descriptive-correlational study. The descriptive-correlational method using Structural Equation Modeling (SEM) is a type of multivariate analysis that examines the relationships between observed variables and latent variables (theoretical constructs). The statistical population of the present study included all secondary school students in Educational Districts 1 and 3 of Tehran. The sample size was determined using G\*Power software. Based on the calculations performed, the sample size was estimated to be 220 participants. The sampling method was systematic random sampling. This method is a type of random sampling in which sample members are selected at fixed intervals from an ordered list. Accordingly, the population size was divided by the sample size, and the resulting number was considered the sampling interval. Then, a starting point was selected randomly, and the samples were selected according

to the calculated interval from that point onward. It should be noted that sampling was conducted proportionate to the gender distribution of the statistical population (girls' and boys' schools).

The participants completed the research questionnaires both in person and through an online link. In the present study, the data analysis process was conducted at two levels: descriptive statistics and inferential statistics. Prior to participation, all participants were informed both verbally and in writing about the objectives of the study, the implementation process, and the potential benefits and risks. Participation in the study was entirely voluntary, and participants were allowed to withdraw from the study at any stage. Participants' personal information (e.g., names and contact numbers) was recorded in coded form, and access to the data was restricted exclusively to the research team.

### 2.2. Measures

**Illinois Bullying Scale:** The Illinois Bullying Scale consists of 18 items and three subscales, including bullying, fighting, and victimization, which are scored based on a Likert scale ranging from 1 (never) to 5 (seven times or more), according to the severity of bullying behaviors. The bullying subscale includes items 1, 2, 8, 9, 14, 15, 16, 17, and 18; the fighting subscale includes items 3, 10, 11, 12, and 13; and the victimization subscale includes items 4, 5, 6, and 7. Dorothy L. Espelage and Melissa K. Holt (2013) reported Cronbach's alpha coefficients of .83, .87, .83, and .88 for the total scale and the bullying, fighting, and victimization subscales, respectively. The findings of these researchers also indicated satisfactory convergent and discriminant validity of the scale. According to the obtained results, the Illinois Bullying Scale demonstrated an appropriate correlation with the Achenbach Aggression Scale, and a significant difference was observed between the bullying and victimization dimensions of the scale (Espelage & Holt, 2001). In Iran, Chalmeh reported Cronbach's alpha coefficients of .89, .90, .71, and .83 for the total scale and the bullying, fighting, and victimization subscales, respectively; split-half reliability coefficients of .73, .83, .65, and .62; and test-retest reliability coefficients of .79, .77, .68, and .74. Regarding the validity of the scale, Chalmeh confirmed the concurrent validity of the Illinois Bullying Scale by examining its relationship with the Buss-Perry Aggression Questionnaire. The correlation coefficients between the subscales and the total scale also indicated

satisfactory validity of the Illinois Bullying Scale (Chalmeh, 2013).

Alexithymia Questionnaire: The Toronto Alexithymia Scale developed by R. Michael Bagby, Parker, and Graeme J. Taylor (1994) consists of 20 items and three subscales: difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking. The scale is scored on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A total score is also calculated from the sum of the three subscales for alexithymia (minimum and maximum scores range from 20 to 100). Individuals obtaining scores of 61 or above are identified as having high alexithymia. Initially, items 4, 5, 10, 18, and 19 are reverse scored. The response options are scored as follows: strongly disagree = 1, disagree = 2, neither disagree nor agree = 3, agree = 4, and strongly agree = 5. Subsequently, the score for each of the three subscales, including difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking, is calculated by summing the scores of the items corresponding to each subscale. The minimum and maximum scores for the difficulty identifying feelings subscale range from 7 to 35; for the difficulty describing feelings subscale from 5 to 25; and for the externally oriented thinking subscale from 8 to 40.

School Social-Emotional Climate Questionnaire: This questionnaire was originally developed in India and translated into Persian in Iran by Karami and Badrakhani, and was standardized by Pasha Amiri in 2009. The questionnaire originally contained 65 items, six of which were removed by the Ministry of Education, leaving 59 items. Following standardization, the questionnaire was reduced to 44 items, and the 44-item version was used in the present study. Participants evaluated each item based on their own opinions and beliefs using yes/no responses. The questionnaire includes four components: acceptance, support, structure, and autonomy. The scoring method is binary (0 and 1), such that a response indicating student satisfaction with the school climate receives a score of 1, while the alternative response receives a score of 0. Test reliability was assessed using the test-retest method, yielding a coefficient of .68 for the total scale, which was statistically significant at the .01 level. Internal consistency was assessed using the Kuder-Richardson method, resulting in a coefficient of .81 (Karimzadeh & Mohseni, 2006). Regarding validity, face validity, content validity, convergent construct validity, discriminant validity, and factorial validity were examined. To establish convergent validity, the Coopersmith Self-Esteem Inventory was used,

yielding a correlation coefficient of  $r = .68$ . Using principal component analysis, the correlations of all items with the total score exceeded .35, indicating acceptable validity of the instrument. Discriminant construct validity of the questionnaire was examined with the 45-item version administered to students and evaluated using the independent samples t-test while considering equality of variances through Levene's test. The significance coefficient of this test was .002.

### 2.3. Data Analysis

This study was conducted in two stages: descriptive-correlational analysis and Structural Equation Modeling (SEM). In the first stage, linear relationships among variables were identified and described without manipulating the variables. In the second stage, causal-explanatory models were tested through the integration of Confirmatory Factor Analysis (CFA) and Path Analysis in order to evaluate the fit of the theoretical model with the empirical data. This method provides a statistical framework for testing complex hypotheses regarding relationships among variables and enables the examination of both direct and indirect effects among variables.

## 3. Findings and Results

In the section describing the demographic characteristics of the sample, the results indicated that among the total participants, 44 individuals (20%) were in the 11-year-old age group, 73 individuals (33.2%) were in the 12-year-old age group, and 103 individuals (46.8%) were in the 13-year-old age group, indicating the predominance of the 13-year-old age group in the research sample. Regarding economic status, 58 individuals (26.4%) were classified as having low economic status, 110 individuals (50%) as having moderate economic status, and 52 individuals (23.6%) as having good economic status, with the highest frequency belonging to the moderate economic status group. Furthermore, the distribution of the number of children in the families showed that 93 individuals (42.3%) were only children, 81 individuals (36.8%) had two children in the family, and 46 individuals (20.9%) belonged to families with three or more children. These findings indicate that the majority of the sample consisted of 13-year-old students with moderate economic status who were predominantly only children or had one sibling. Examination of the descriptive indices of the research variables demonstrated that the mean scores for alexithymia, school social-emotional climate, and bullying

were 53.54, 113.20, and 48.01, respectively. The results of the Kolmogorov–Smirnov test showed that all variables had significance levels above .05; therefore, the data distribution

was normal. The evaluation of model fit, convergent validity, and reliability of the research variables is reported in Table 1.

**Table 1**

*Convergent Validity and Reliability of the Research Variables*

Variable	Cronbach’s Alpha (Alpha > .70)	rho_A	Composite Reliability (CR > .70)	AVE (AVE > .50)	SRMR < .08
School Social-Emotional Climate	.995	.996	.996	.835	.039
Bullying	.991	.992	.992	.871	—
Alexithymia	.985	.985	.986	.775	—

Cronbach’s alpha, rho\_A coefficient, and composite reliability values for all variables were greater than .70; therefore, the reliability of all variables was confirmed. The Average Variance Extracted (AVE) values were consistently greater than .50, indicating that convergent validity was also confirmed. Furthermore, the relationship between CR and AVE was established, as CR values were greater than AVE values.

In the inferential section, the relationship between school social-emotional climate and student bullying based on the mediating role of alexithymia was examined using Partial Least Squares Structural Equation Modeling (PLS-SEM). The path coefficients are presented in Table 2 and Figures 1 and 2.

**Table 2**

*Direct and Indirect Effects of the Research Variables*

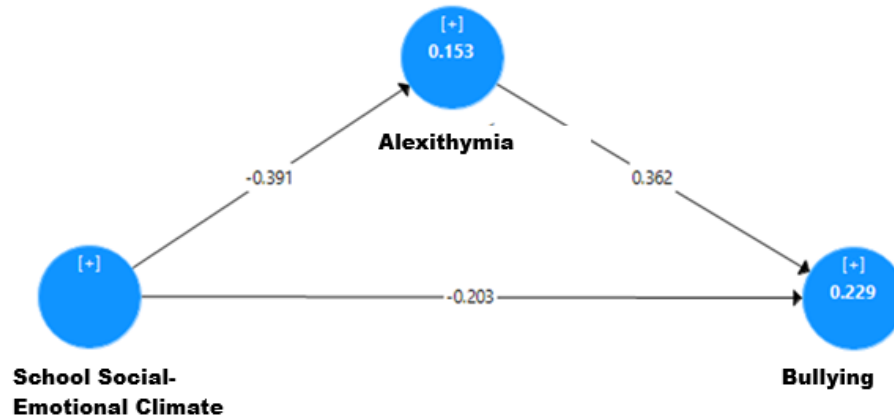
Path Effects	Direct Effect	Significance Level (t-value)	Indirect Effect	Total Effect	Significance Level
School Social-Emotional Climate → Bullying	-.203	3.119	-.141	-.334	p < .05
School Social-Emotional Climate → Alexithymia	-.391	6.409	—	-.391	p < .05
Alexithymia → Bullying	.362	5.989	—	.362	p < .05

According to Table 2, it can be stated that because the significance value (t-value) was greater than 1.96 and the significance level was less than .05, the path coefficients were significant at the .05 error level. Based on the results, school social-emotional climate had a significant relationship with bullying ( $\beta = -.203$ ,  $t = 3.119$ ) and alexithymia ( $\beta = -.391$ ,  $t = 6.409$ ) among students. Furthermore, a significant relationship was observed between alexithymia and student bullying ( $\beta = .362$ ,  $t = 5.989$ ). As can be observed, the indirect effect of school social-emotional climate on student bullying through the mediating role of alexithymia was equal to -.141.

Based on Figure 1, in the presence of the mediator variable alexithymia, the effect size was 22%. Furthermore, it should be noted that the path coefficient between school social-emotional climate and students’ alexithymia (-.39) was negative, and 15% of the variance in students’ alexithymia was explained by school social-emotional climate. In addition, the path coefficient between alexithymia (.36) and student bullying was positive and statistically significant. The bootstrap output used to confirm the mediating role of alexithymia is presented in Table 3.

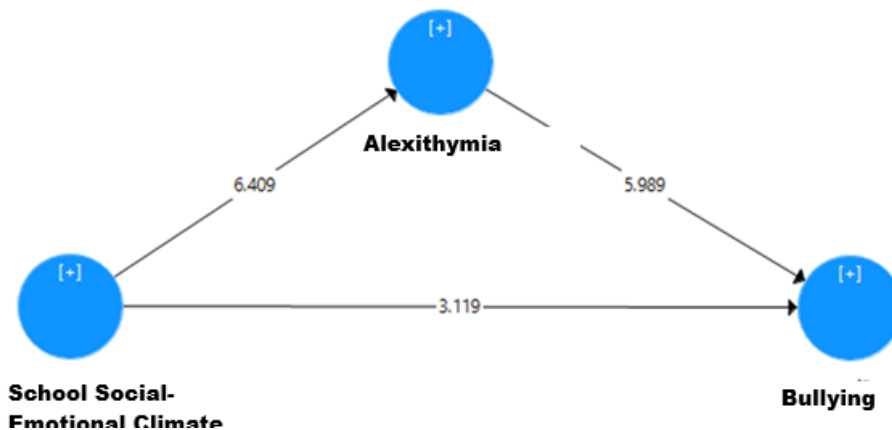
**Figure 1**

Path coefficients for the relationship between school social-emotional climate and student bullying based on the mediating role of alexithymia.



**Figure 2**

t-test values for the relationship between school social-emotional climate and student bullying based on the mediating role of alexithymia.



**Table 3**

Testing the Mediating Role of Alexithymia in the Relationship Between School Social-Emotional Climate and Bullying Using the Bootstrap

Method

Path Effects	Original Sample	Bootstrap Sample	Bias	Standard Error	Lower Bound	Upper Bound	Significance Level
School Social-Emotional Climate → Alexithymia → Bullying	-.141	-.144	-	.032	-.207	-.083	.0001

As shown in Table 3, the upper and lower confidence intervals for the indirect relationship between school social-emotional climate and student bullying through the mediating variable of alexithymia did not include zero, indicating that this indirect path was significant in the overall sample. Overall, the results of the mediation analysis

confirmed the indirect relationships through the bootstrap method.

#### 4. Discussion

The present study aimed to investigate the relationship between school social-emotional climate and student bullying through the mediating role of alexithymia among

secondary school students. The findings demonstrated that school social-emotional climate had a significant negative relationship with both bullying and alexithymia among students. Furthermore, alexithymia showed a significant positive relationship with bullying behaviors. The results of the structural equation model also confirmed the mediating role of alexithymia in the relationship between school social-emotional climate and bullying. In other words, a favorable school social-emotional climate was associated with lower levels of alexithymia, which in turn reduced the likelihood of bullying behaviors among adolescents. These findings indicate that both environmental and emotional factors contribute simultaneously to the emergence or prevention of bullying behaviors in educational settings.

One of the major findings of the present study was the significant negative relationship between school social-emotional climate and bullying. This finding is consistent with the results of previous studies demonstrating that positive school climate functions as a protective factor against aggressive and antisocial behaviors among students (Kalkan & Dagli, 2021; Saeedi et al., 2021; Shirani et al., 2021). Similarly, studies have shown that schools characterized by emotional support, positive interpersonal relationships, fairness, acceptance, and student engagement report lower levels of bullying and victimization (Espelage & Holt, 2013; Maxwell et al., 2017). School social-emotional climate creates a psychological environment in which students experience emotional safety, belongingness, and social acceptance. Such environments strengthen students' emotional adjustment and reduce tendencies toward hostility, impulsivity, and aggressive interactions. Conversely, emotionally unsupportive school climates may intensify interpersonal conflicts, emotional frustration, and social alienation, thereby increasing the likelihood of bullying behaviors.

The findings of the present study may also be interpreted within the framework of social learning and ecological theories. According to these perspectives, adolescents acquire behavioral norms and emotional responses through continuous interaction with their social environments, particularly schools and peer groups (Espelage & Swearer, 2003). A positive school climate provides opportunities for cooperative learning, emotional communication, empathy development, and constructive conflict resolution. These experiences reinforce prosocial behaviors and reduce aggressive tendencies. In contrast, negative school climates characterized by emotional neglect, unfair treatment, or weak social cohesion may normalize aggression and reduce

emotional accountability among students. The findings of Gaffney et al. indicated that school-based interventions targeting emotional and relational aspects of school climate significantly reduce bullying prevalence (Gaffney et al., 2019). Therefore, the current findings further support the argument that school climate is not merely an environmental variable but an influential psychosocial factor affecting adolescents' emotional and behavioral functioning.

Another important finding of this study was the significant negative relationship between school social-emotional climate and alexithymia. Students who perceived their school climate as more supportive and emotionally positive demonstrated lower levels of difficulty in identifying and expressing emotions. This finding aligns with previous studies emphasizing the role of emotionally supportive environments in fostering emotional awareness and emotional regulation skills (Coelho & Sousa, 2021; Kalkan & Dagli, 2021). Adolescence represents a critical developmental period during which emotional competencies are shaped through social experiences and interpersonal interactions. In supportive school contexts, students receive emotional validation, empathy, and opportunities for healthy emotional expression, which facilitate emotional literacy and self-awareness. Conversely, emotionally cold or conflictual environments may suppress emotional communication and contribute to emotional confusion and detachment.

The association between school climate and alexithymia can also be explained through attachment and emotional development frameworks. Adolescents require emotionally secure environments to develop adaptive emotional processing capacities. Positive relationships with teachers and peers may help students identify, label, and regulate emotions more effectively. Emotional support and acceptance within school settings may reduce internal emotional tension and enhance emotional communication skills. Research has demonstrated that emotional competencies are significantly associated with social adjustment, interpersonal functioning, and psychological well-being (Nikooyeh E & Mohammadi Aria, 2025; Sarzosa & Urzua, 2021). Therefore, students who experience emotionally responsive school environments may be less likely to develop alexithymic characteristics such as emotional suppression or externally oriented thinking.

The present findings also revealed that alexithymia had a significant positive relationship with bullying behaviors. This finding is highly consistent with previous studies indicating that emotional processing deficits contribute to

aggressive and bullying behaviors among adolescents (Shabahang et al., 2019; Wachs et al., 2017; Wachs & Wright, 2018). Adolescents with alexithymic characteristics often experience difficulty recognizing and verbalizing emotional experiences, which may increase emotional frustration and maladaptive coping behaviors. Because these individuals struggle to regulate emotional distress effectively, they may externalize their emotions through aggression, hostility, or bullying behaviors toward peers. Emotional unawareness may also impair empathic responsiveness, making it more difficult for adolescents to understand the emotional consequences of their aggressive actions.

The relationship between alexithymia and bullying may additionally be interpreted through the lens of emotional dysregulation theories. Emotional regulation requires accurate identification, interpretation, and expression of emotional states. Individuals with alexithymia lack these competencies and may therefore rely on impulsive or maladaptive behavioral responses in emotionally stressful situations. Research has shown that adolescents with deficits in emotional awareness and empathy exhibit higher levels of bullying perpetration and interpersonal aggression (Sen Demirdogen et al., 2022). Similarly, studies on cyberbullying have emphasized that emotional vulnerabilities and maladaptive coping styles significantly increase the likelihood of aggressive online behaviors (Manzoor et al., 2026; Rodríguez-Hidalgo et al., 2025). These findings suggest that alexithymia may function as an important emotional risk factor underlying both traditional and cyber forms of bullying.

The mediating role of alexithymia in the relationship between school social-emotional climate and bullying constitutes one of the most important findings of the present study. The bootstrap analysis confirmed that the indirect effect of school social-emotional climate on bullying through alexithymia was statistically significant. This finding suggests that school climate influences bullying not only directly but also indirectly through its effects on adolescents' emotional functioning. In supportive and emotionally secure school environments, students may develop healthier emotional awareness and communication skills, which reduce emotional suppression and alexithymic tendencies. As a result, they become less likely to engage in aggressive or bullying behaviors.

This mediating mechanism can be explained through socio-emotional development models emphasizing the interaction between environmental and emotional factors in

shaping adolescent behavior. School climate influences students' emotional experiences by providing social feedback, emotional validation, and opportunities for emotional learning. Positive school environments strengthen emotional competencies and empathy, thereby reducing emotional dysregulation and aggression (Coelho & Sousa, 2021; Yun, 2020). In contrast, emotionally unsupportive school contexts may contribute to emotional disconnection and interpersonal hostility. Therefore, alexithymia may represent an emotional pathway through which environmental stressors translate into aggressive behaviors. The findings of the present study expand previous literature by demonstrating that emotional deficits partially explain the association between school social-emotional climate and bullying behaviors among adolescents.

The present findings are also consistent with studies highlighting the importance of empathy and emotional regulation in preventing bullying behaviors (Asghari Sharbiyani & Basharpour, 2021; Shirani et al., 2021). Adolescents who possess greater emotional awareness and empathic sensitivity are more capable of understanding the emotional impact of their actions on others and are less likely to engage in harmful peer interactions. Emotional competencies function as protective mechanisms that facilitate adaptive social functioning and conflict resolution. Consequently, educational environments that promote emotional literacy, social connectedness, and emotional support may significantly reduce bullying prevalence among students.

Another noteworthy aspect of the findings concerns the broader psychosocial implications of school social-emotional climate. Previous studies have demonstrated that positive school climate enhances academic achievement, school identification, psychological adjustment, and social belongingness (Kalkan & Dagli, 2021; Maxwell et al., 2017). These outcomes may indirectly reduce aggression and bullying by strengthening students' sense of connection and emotional investment in the school environment. In contrast, adolescents who feel emotionally disconnected from school may experience alienation, frustration, and reduced commitment to social norms, thereby increasing vulnerability to antisocial behaviors. The findings of the present study therefore support multidimensional approaches to bullying prevention that integrate emotional, relational, and environmental interventions.

Furthermore, the findings may be interpreted in light of contemporary perspectives emphasizing relational justice and interpersonal architecture within educational settings.

Positive relational structures within schools foster trust, cooperation, and emotional reciprocity among students (Xing Tan, 2023). Such environments reduce social exclusion and interpersonal hostility while promoting emotional resilience and adaptive peer relationships. In contrast, schools lacking emotional cohesion may facilitate emotional disengagement and social fragmentation. Consequently, interventions aimed at improving school climate may not only reduce bullying but also strengthen adolescents' overall emotional and social development.

## 5. Conclusion

The consistency of the present findings with both national and international studies strengthens the generalizability of the observed relationships. Research conducted across diverse cultural contexts has consistently demonstrated that bullying behaviors are associated with emotional vulnerabilities, social-emotional deficits, and environmental stressors (Liu et al., 2024; Smith et al., 2019). Moreover, the increasing prevalence of cyberbullying and emotionally driven aggressive behaviors highlights the growing importance of emotional competencies in adolescent mental health and social adjustment (Manzoor et al., 2026; Rodríguez-Hidalgo et al., 2025). Therefore, the current study contributes to the existing body of knowledge by integrating environmental and emotional variables within a single explanatory framework.

One limitation of the present study was the reliance on self-report questionnaires, which may have increased the likelihood of response bias and socially desirable responding among participants. In addition, the cross-sectional nature of the study limited the ability to establish definitive causal relationships among the variables. The study sample was also restricted to secondary school students in specific educational districts of Tehran, which may limit the generalizability of the findings to other populations and cultural contexts. Furthermore, other potentially influential variables such as parenting styles, peer attachment, family emotional climate, and socioeconomic stressors were not examined in the present study.

Future research is recommended to employ longitudinal and experimental designs in order to examine causal relationships between school climate, alexithymia, and bullying over time. Researchers may also investigate the role of additional mediating and moderating variables such as emotional intelligence, resilience, attachment styles, empathy, coping strategies, and family functioning.

Comparative studies across different cultural contexts, educational levels, and gender groups may provide deeper insight into the developmental and sociocultural dimensions of bullying behaviors. It is also recommended that future studies examine cyberbullying alongside traditional bullying in integrated theoretical models.

From a practical perspective, the findings of the present study highlight the importance of promoting positive social-emotional climates within schools to reduce bullying behaviors among adolescents. Educational policymakers, school counselors, and psychologists should prioritize the development of school-based emotional learning programs aimed at improving emotional awareness, empathy, emotional regulation, and interpersonal communication skills. Schools may also benefit from implementing preventive interventions that strengthen supportive teacher-student relationships, peer connectedness, and students' sense of belonging. In addition, training programs for parents and teachers focusing on emotional literacy and constructive emotional communication may help reduce alexithymic tendencies and aggressive behaviors among adolescents.

## Authors' Contributions

Authors equally contributed to this article.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

## Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

## Declaration of Interest

The authors report no conflict of interest.

## Funding

According to the authors, this article has no financial support.

## Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

## References

- Asghari Sharbiyani, A., & Basharpour, S. (2021). The Mediating Role of Empathy in the Relationship between Family Functions and Bullying in Students. *Family Psychology*, 5(2), 15-26. <https://doi.org/10.22034/ijfp.2021.245542>
- Coelho, V. A., & Sousa, V. (2021). A Multilevel Analysis of the Relation between Bullying Roles and Social and Emotional Competencies. *Journal of interpersonal violence*, 36(11-12), 5122-5144. <https://doi.org/10.1177/0886260518801943>
- Conti, C., Di Francesco, G., Lanzara, R., Severo, M., Fumagalli, L., Guagnano, M. T., & Porcelli, P. (2019). Alexithymia and Binge Eating in Obese Outpatients Who Are Starting a Weight-Loss Program: A Structural Equation Analysis. *European Eating Disorders Review*, 27(6), 628-640. <https://doi.org/10.1002/erv.2696>
- Espelage, D. L., & Holt, M. K. (2013). Bullying and Victimization during Early Adolescence: Peer Influences and Psychosocial Correlates. In *Bullying Behavior* (pp. 123-142). Routledge.
- Espelage, D. L., & Swearer, S. M. (2003). Research on School Bullying and Victimization: What Have We Learned and Where Do We Go from Here? *School Psychology Review*, 32(3), 365-383. <https://doi.org/10.1080/02796015.2003.12086206>
- Gaffney, H., Ttofi, M. M., & Farrington, D. P. (2019). Evaluating the Effectiveness of School-Bullying Prevention Programs: An Updated Meta-Analytical Review. *Aggression and Violent Behavior*, 45, 111-133. <https://doi.org/10.1016/j.avb.2018.07.001>
- Kalkan, F., & Dagli, E. (2021). The Relationships between School Climate, School Belonging and School Burnout in Secondary School Students. *International Journal of Contemporary Educational Research*, 8(4), 59-79. <https://doi.org/10.33200/ijcer.878682>
- KarimZade, M., & Mohseni, N. (2006). Female Academic Self-Efficacy and Academic Achievement. *Women's Studies Sociological and Psychological*, 4(2), 29-45.
- Kim, N., Park, I., Lee, Y. J., Jeon, S., Kim, S., Lee, K. H., & Kim, S. J. (2020). Alexithymia and Frontal-Amygdala Functional Connectivity in North Korean Refugees. *Psychological medicine*, 50(2), 334-341. <https://doi.org/10.1017/S0033291719000175>
- Liu, Y., Chen, Z., Wang, P., & Xu, L. (2024). Relationship between Bullying Behaviors and Physical Activity in Children and Adolescents: A Systematic Review and Meta-Analysis. *Aggression and Violent Behavior*, 101976. <https://doi.org/10.1016/j.avb.2024.101976>
- Manzoor, Z., Sadiq, U., & Baig, K. B. (2026). Cyberbullying and emotional vulnerabilities: role of coping styles. *BMC psychology*. <https://doi.org/10.1186/s40359-026-04021-7>
- Maxwell, S., Reynolds, K. J., Lee, E., Subasic, E., & Bromhead, D. (2017). The Impact of School Climate and School Identification on Academic Achievement: Multilevel Modeling with Student and Teacher Data. *Frontiers in psychology*, 8, 2069. <https://doi.org/10.3389/fpsyg.2017.02069>
- Mazzone, A., & Camodeca, M. (2018). Emotion Awareness and Somatic Complaints in Preadolescence: The Mediating Role of Coping Strategies. *Infant and Child Development*, 27(3), e2075. <https://doi.org/10.1002/icd.2075>
- Nikooyeh E, S. S. A., & Mohammadi Aria, A. (2025). The Mediating Role of Cyberbullying, Self-Efficacy, and Parenting Styles in the Relationship Between Trait Emotional Intelligence and School Adjustment in Adolescents. *Journal of Cognition, Behavior, Learning*, 2(2), 11. <https://journalcbl.com/index.php/jcbl/article/view/192>
- O'Dowd, M. A. (2020). Alexithymia: Advances in Research, Theory, and Clinical Practice, Oliver Luminet, R. Michael Bagby, Graeme J. Taylor, Cambridge University Press, Cambridge, United Kingdom, ISBN-13: 978-1108416641, ISBN-10: 1108416640, 372 pages, \$84.99.
- Rodríguez-Hidalgo, A. J., Camargo, V. S., & Hurtado-Mellado, A. (2025). Cyberbullying Based on Social Stigmas and Social, Emotional and Moral Competencies. *Behavioral Sciences*, 15(5), 646. <https://doi.org/10.3390/bs15050646>
- Saeedi, M. A., Shabiri, S. M., & Ardashirpei, J. (2021). Investigating the Relationship between School Emotional Climate and Family Emotional Climate in Predicting Bullying among Female Middle School Students in Shiraz. Third International Conference on Educational Sciences, Psychology, Counseling, Education, and Research,
- Sarzosa, M., & Urzua, S. (2021). Bullying among Adolescents: The Role of Skills. *Quantitative Economics*, 12(3), 945-980. <https://doi.org/10.3982/QE1215>
- Sen Demirdogen, E., Aluc, N., Akdeniz, B., Basar, D., Warikoo, N., & Yavuz, M. (2022). The Associations between Reading Mind in the Eyes Abilities, Alexithymia, Empathy, and Bullying Behavior in Turkish Adolescents. *Journal of Child and Adolescent Psychiatric Nursing*, 35(3), 230-239. <https://doi.org/10.1111/jcap.12366>
- Shabahang, R., Sedighian, S. F., Rahiminejad, A., & Soltani Shal, R. (2019). The Role of Emotion Regulation Difficulties and Alexithymia in Predicting Bullying. *Child Mental Health*, 6(3), 40-50. <http://childmentalhealth.ir/article-1-483-fa.html>
- Shirani, Z., Baramakeh, Z., & Bahramipour, M. (2021). The Role of Empathy, Emotion Regulation, and School Climate against Cyberbullying. Eighth Congress of the Iranian Psychological Association,
- Smith, P. K., Lopez-Castro, L., Robinson, S., & Gorzig, A. (2019). Consistency of Gender Differences in Bullying in Cross-Cultural Surveys. *Aggression and Violent Behavior*, 45, 33-40. <https://doi.org/10.1016/j.avb.2018.04.006>
- Wachs, S., Bilz, L., Fischer, S. M., & Wright, M. F. (2017). Do Emotional Components of Alexithymia Mediate the Interplay between Cyberbullying Victimization and Perpetration? *International journal of environmental research and public health*, 14(12), 1530. <https://doi.org/10.3390/ijerph14121530>
- Wachs, S., & Wright, M. F. (2018). Bullying and Alexithymia: Are There Differences between Traditional, Cyber, Combined Bullies, and Nonbullies in Reading Their Own Emotions? *Criminal Behaviour and Mental Health*, 28(5), 409-413. <https://doi.org/10.1002/cbm.2083>
- Xing Tan, Z. (2023). Rethinking Relational Architecture: Interpersonal Justice beyond Private Law. *University of Toronto Law Journal*, 73(3), 293-347. <https://doi.org/10.3138/utlj-2021-0087>
- Yun, H. Y. (2020). New Approaches to Defender and Outsider Roles in School Bullying. *Child development*, 91(4), e814-e832. <https://doi.org/10.1111/cdev.13312>