



Relationship between School Climate and Depressive Symptoms among Preadolescents: The Mediating Effect of Bullying

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Abstract

An effective school environment contributes to identifying students' specific needs and promoting a positive climate for learning. Bullying represents an important factor that can negatively affect students' motivation, emotional skills, attention, and overall attitude. This study aims to investigate the influence of the school climate on the negative emotional effects of bullying in preadolescence. For this purpose, a sample of 214 preadolescent students (5th to 8th grade, secondary schools) completed a questionnaire assessing school climate, bullying in terms of aggressiveness, victimization, positive behaviors, and depressive symptoms. The findings indicate that school climate is negatively associated with aggressive behaviors, victimization, and depression, and positively associated with positive behaviors. Additionally, depression has a significant positive correlation with aggression and victimization, as well as a significant negative correlation with the manifestation of positive behaviors. Mediation analysis indicated that bullying, through aggressiveness and positive behaviors, but not through victimization, mediates the relationship between the school climate and depressive symptoms. These results highlight the essential role of the school climate, be it positive or negative, in understanding the phenomenon of bullying and its emotional effects, such as depression. Integration in the class group, the feeling of safety, and the existence of authentic friendships contribute to reducing the risk of depressive states among students. Future research could analyze the influence of psychosocial factors such as social support, emotional regulation, or self-esteem in the relationship between school climate and depression.

Keywords: aggressiveness; bullying; depression; positive behaviors; school climate; victimization

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1. Introduction

Preadolescence (ages 10/11 to 14/15) is often seen as a time of optimism, fostering sincerity, balance, responsibility, and self-control in children. However, it is also marked by significant physical, emotional, and cognitive changes, along with impulsivity and non-conformity, which heighten emotional states and accelerate sexual drives (Zlate, 1972). These traits can make students particularly susceptible to bullying. Over time, students' personal development is shaped by their integration into the school environment and their interactions, stemming from their belonging and affiliation needs (Carcea, 1999). Bullying is a widespread issue in nearly all schools worldwide, garnering significant attention from researchers, educators, and the media, who have developed a deep, inherent, and enduring interest in school aggressiveness. Bullying is described as repetitive, aggressive, and offensive behavior directed against individuals in a position of vulnerability or inferiority to the aggressors (Hellström et al., 2021). The impact of bullying is profound, affecting the mental, physical, and emotional development of both victims and perpetrators. Given that studies have consistently highlighted both simultaneous and long-term links between engaging in acts of aggression and victimization (Walters, 2021), it is essential to understand that students can have different roles: they can be aggressors, victims, or they can experience both roles simultaneously, as aggressor-victims. The effects of bullying can leave lasting marks beyond preadolescence. A child who has been bullied may experience chronic fatigue, pessimism, major depression, and low self-confidence in adulthood, impairing their ability to act and socialize (Klomek et al., 2009).

1.1. School climate

A formal unit of students is called a school class or a class (Alm & Låftman, 2016; Coelho & Sousa, 2018; Låftman et al., 2020). Although students are part of several groups and contexts that influence their lives, the most relevant ones remain the school class and the family (Alm & Låftman, 2016). In general, students' social relationships and interactions within their own classes are more frequent and significant than those with peers in other classes.

Thus, the class constitutes a smaller and more significant setting compared to the entire school community (Thornberg et al., 2022). The term "climate" refers to the intellectual and moral atmosphere within a group, encompassing the collective perceptions and emotional experiences existing within an organization (Păun, 1999). School climate has been described as "the quality and nature of life in the educational environment", which includes the norms, values, and expectations that play a pivotal role in fostering a sense of emotional, social, and physical safety for all constituents within the school community (Cohen et al., 2009, p. 182). Some authors argue that the concept of school climate should be distinguished from classroom climate, but both have an impact on students and teaching staff (Fraser, 1986).

Păun (1999) highlights four categories of factors that shape the organization of school climate: structural, instrumental, socio-affective, and motivational. Structural factors refer to the size of the school and the homogeneity of the group, influencing the quality of relationships between members. Young teachers bring energy and closeness, and the school management and material resources (instrumental factors) provide a conducive learning environment. A democratic leadership style promotes a positive environment, unlike an authoritarian one, which can generate tension and dissatisfaction. Socio-affective and motivational factors relate to the socialization process of students and relationships based on acceptance, respect, and support, influencing emotions and social integration. Thus, students experience collaboration, competition, conflicts, and shared aspirations. Hofer & Peetsma (2005) showed that, during school, pre-adolescents' interest in the future is lower compared to their interest in creating social relationships or spending free time.

Previous studies have indicated that a supportive educational environment is correlated with a multitude of beneficial outcomes, including increased self-esteem, optimal physical and

psychological well-being, high levels of engagement, and superior academic achievement (Cohen et al., 2009; Thapa et al., 2013). School climate is another major determinant of students' emotional and behavioral expressions (Wang et al., 2010). Several elements, such as cultivating teacher-student interactions (Demaray & Malecki, 2003; Li et al., 2011; Olweus, 1994), mutual support among peers (Demaray & Malecki, 2003; Li et al., 2011; Turner et al., 2014) and a deep sense of belonging (Chan & Wong, 2019), connection and involvement in the school community (Li et al., 2011; Turner et al., 2014), establishing clear rules and consequences for inappropriate behaviors (Olweus, 1994), as well as shared beliefs about rejecting aggression (Gendron et al., 2011), are correlated with a reduction in the level of aggression among students.

1.2. Teacher-student relationships

The connection between teachers and students is a dynamic and reciprocal one. It plays a functional or dysfunctional role and can contribute to either maintaining or breaking down the classroom environment. Teachers have the responsibility of shaping the classroom climate to make it comfortable and conducive to improving students' ability to learn and communicate (Bucholz & Sheffler, 2009).

Teacher-student relationships are essential factors in school life, influencing both students' adaptation to the educational environment and behavioral and emotional manifestations. Research shows that a quality teacher-student relationship can contribute to reducing aggressive behaviors and the risk of victimization among students (Bae et al., 2019; Chen et al., 2021; Marengo et al., 2018). These effects are important for vulnerable or at-risk students, for whom creating positive relationships with teachers can have a significant protective role (Hamre & Pianta, 2005; Baker et al., 2008).

The link between a strong teacher-student relationship and involvement in bullying has been supported by several studies, which found that students who experience strained relationships with teachers are more likely to take on the roles of bullies or bully-victims. For instance, Wang et al. (2015) found that these students differ significantly from victims, bystanders, or uninvolved peers, as they generally report weaker bonds with their teachers. Favorable relationships with teachers, characterized by emotional support, trust, and open communication (Sulkowski & Simmons, 2018), support a positive educational climate, favoring student involvement in activities, a strong sense of inclusion, and motivation to learn (Allen et al., 2018; Scales et al., 2020). They have also been associated with better academic performance and a decrease in problem behaviors (Lei et al., 2016; Roorda et al., 2011).

The quality of the teacher-student relationship is not a statistic, but varies depending on the specifics of each interaction: some dyads may be marked by closeness and support, while others may be tense or conflictual (Pianta, 2006; Roorda et al., 2017). For this reason, developing positive classroom relationships remains a fundamental aspect in preventing undesirable behaviors and promoting school success.

1.3. Peer relationships

Zlate (1972) defines interpersonal relationships as direct, conscious, and psychological connections between individuals. Regarding the class of students, different types of relationships can be formed, such as affective-sympathetic, mutual knowledge, influencing, and intercommunication (Dumitriu, 1998). The need for emotional reciprocity determines affective-sympathetic relationships. The social environment has effects on the development of affective interaction skills, and the creation of a positive atmosphere provides students with a sense of security. According to Ullrich (1995), educational influence represents an organized and structured educational action, exercised on a person (student), to build, shape, or change certain behaviors and attitudes. Relationships between colleagues are generated by the psychological

need to understand oneself within the group and to discover information about others (Festinger, 1954).

The social integration of students in the school environment is evidenced by the acceptance of peers and the existence of friendships. Therefore, it is a crucial factor in supporting their emotional, social, and academic development. Studies show that the sense of belonging to school and the motivation to actively participate in educational life increase considerably when students feel appreciated and included in positive social groups (Kingery et al., 2011; Véronneau et al., 2010). The data from the studies show that a large part of the variation in students' behavior cannot be explained only by individual traits, but also by the specific nature of interpersonal relationships. For example, Peets et al. (2007) demonstrated that children's tendency to perceive hostility in the behavior of peers changes significantly depending on the particular relationship, suggesting that these reactions are not stable traits, but rather context-dependent. Relationships between students, whether friendship, rivalry, or bully-victim, develop dynamically and profoundly influence the way students relate to school and their peers (Abecassis et al., 2002).

1.4. Bullying

The phenomenon of aggression in schools has become a topic of interest in the specialized literature, with the research of Olweus (1978), who first introduced the term “bullying”. It refers to repeated forms of violence and intimidation, intending to dominate and humiliate a victim, either directly or in front of others (Gavrilescu & Merloiu, 2021). Unlike aggression, which can include both isolated manifestations and forms of violence, bullying is distinguished by its systematic nature and the clear intention to consolidate the aggressor's control. At the same time, the group's values and social standards shape children's aggression, highlighting the key role of social context in triggering aggressive actions (Stormshak et al., 1999).

Several studies have highlighted the importance of the family environment in preventing or favoring acts of harassment. Permissive parenting styles, characterized by affection but a lack of control, can also contribute to difficulties in regulating impulses and avoiding bullying behaviors (Miller et al., 2002). In addition, Guetzloe (1997) identified five fundamental conditions that can fuel aggression among students: lack of affective relationships with teachers, exposure to violence in the media, previous experiences of victimization, membership in deviant groups, and lack of affective education. It is also worth noting the idea that some people can be “sociable but unsocial”, feel good in relationships with others, but can paradoxically generate social resistance from the group (Kant, 1784/1963).

1.5. Bullies, victims, and consequences of bullying

Transitional school periods, such as the transition from primary to lower secondary school, are often marked by an intensification of bullying behaviors. This phenomenon is explained by the fact that early adolescence is a stage of profound social reorganization, in which gaining status in a group becomes a priority (LaFontana & Cillessen, 2010). In this context, aggressive behaviors can appear as social adaptation strategies, and bullying reaches a peak in frequency, being correlated with the need for recognition and dominance (Espelage et al., 2001; Pellegrini & Long, 2002). Aggressors, according to Pellegrini et al. (1999), use violence not only as an expression of hostility, but as a means of consolidating their social position. These individuals often display traits such as impulsivity, lack of empathy, hostility, and difficulty recognizing the suffering of others. Furthermore, they present poor academic performance and a negative attitude towards school. Psychologically, they display higher levels of psychotic traits than peers who are not aggressive.

Aggressive actions can appear in different forms, from direct manifestations such as physical attacks or insults, to indirect, difficult-to-detect forms, such as social manipulation through gossip or subtle exclusion of peers (Crick & Grotpeter, 1995). These covert tactics affect

the reputation and social integration of victims, without the aggressor always being easily identified.

In the short term, the stability of a social hierarchy in the group can have a functional role, providing adolescents with a framework in which to define their position and learn to relate strategically (Juvonen & Galván, 2008). In this sense, dominance behaviors are not only individual expressions of the need for power, but also respond to a collective dynamic of adaptation in the school social environment (Cillessen & Borch, 2006).

Victims of aggression may experience adjustment problems such as depression, loneliness, anxiety, and low self-esteem (Hawker & Boulton, 2000), and may even become physically ill. Researchers have identified two types of school victims: the submissive or passive victim - an insecure, anxious, irritable, sensitive, physically weak person with low social skills and better relationships with adults than with peers; and the defiant victim - a choleric, hyperactive, tactless person who exhibits both anxiety and aggression due to frustrations. Abused children may develop reactive attachment disorder, which is a condition related to early childhood trauma, stress caused by social neglect and maltreatment (American Psychiatric Association, 2013; DSM-V). Consequently, they may have difficulty attaching to others, experiencing positive emotions, and rejecting physical or emotional closeness. The trauma of bullying is also experienced by observers, as the tensions in the school environment create insecurity.

Exposure to bullying in cross-sectional studies has been associated with psychosomatic complaints, low self-esteem, symptoms of depression and anxiety, suicidal ideation, and suicide attempts (Kaltiala-Heino et al., 1999). Depression symptoms can significantly impair emotional, physical, behavioral, cognitive, and interpersonal functioning (Callahan et al., 1996). Depressed children tend to show lower levels of prosocial behavior, frequently provoke negative reactions and rejection in peer interactions (Rudolph et al., 1994), and maintain poor-quality friendships (Goodyer et al., 1990). In addition to the negative psychological impact, studies show that bullying is a risk factor for developing certain somatic conditions. A study of over 1,600 American children aged 6 to 9 found that bullying was associated with a higher frequency of symptoms such as sore throats, colds, and loss of appetite (Wolke et al., 2001).

1.6. The present study

Considering that bullying is a major risk factor for the mental health and socio-emotional development of preadolescents (Espelage & Hong, 2019), the analysis of this phenomenon becomes essential in the contemporary educational context. Preadolescence, characterized by intense emotional and social transitions, is a vulnerable period in which negative experiences such as systematic bullying can profoundly influence identity formation and interpersonal relationships (Smith, 2016).

Thus, the purpose of this present study is to investigate the impact of school climate on the negative emotional effects of bullying among preadolescents. The hypotheses of this study are:

H1. Perceived school climate significantly correlates with aggression, victimization, positive behaviors, and depression.

H2. Depression significantly correlates with aggression, victimization, and positive behaviors.

H3. Bullying behaviors and depressive symptoms differ by gender.

H4. Bullying mediates the relationship between school climate and preadolescent depression.

2. Method

2.1. Sample and procedure

The research was conducted in the 2021-2022 school year on a sample of 214 participants, 137 students from rural secondary schools (36%) and 77 students from urban secondary schools (64%), belonging to the northeastern area of Romania. Of these, 98 participants are female and 116 male, aged between 10 and 15 years ($M = 13.2617$, $SD = 1.40312$): 7 participants aged 10 (3%), 20 participants aged 11 (9%), 39 participants aged 12 (18%), 40 participants aged 13 (19%), 60 participants aged 14 (28%), 48 participants aged 15 (23%). Students were informed that participation in the study is voluntary, their responses being anonymous and confidential. They were also told that they can withdraw at any time without consequences, and the collected data will be used exclusively for research purposes. The questionnaire took about 15 minutes to complete and was conducted both online and in physical format.

2.2. Measures

School Climate. We used 11 items selected from the safety (physical and socio-emotional) and community (connectedness and respect for diversity) dimensions of the *School Climate Scale Based on School Members' Shared Experiences* (Sudla et al., 2020) to measure students' perceptions of the school climate (e.g., "My school colleagues work collaboratively, generously and sincerely with each other."; "I feel accepted and a sense of belonging in the school community."). Responses were recorded on a five-point Likert scale, where the first point represents strong disagreement and the last point indicates strong agreement. The total score was calculated by getting the average score on the 11 items. In the present study, Cronbach's alpha coefficient was .86.

Bullying. The phenomenon of bullying was assessed through the *Students' Self-Report Questionnaire* (Stevens et al., 2000), which includes three scales: bullying (7 items), victimization (8 items), and positive behaviors (6 items). The items assessing the frequency of bullying-related behaviors and victimization experiences, such as: "How often have you been bullied in school?", "How often have you taken part in bullying other students in school?" and social isolation: "How often does it happen that other students don't want to spend recess with you and you end up being alone?" come from the *Self-Report Bullying Inventory* (Olweus, 1989). In addition, the positive behaviors and the categories of aggression and victimization (direct: physical, verbal; indirect) are taken from the *Life in School checklist* (Arora, 1994). Response options ranged from "never happened" (1), through "sometimes" (3), to "a few times a week" (5). The questionnaire was validated on the Romanian school population by Beldean-Galea et al. (2010). The internal consistency of the three scales was 0.81 for the bullying scale, 0.63 for the victimization scale, and 0.72 for the positive behaviors scale, indicating satisfactory psychometric properties for the Romanian version of the instrument. In the present study, the total scores on each dimension are obtained as an average of the individual item scores. The Cronbach's alpha for the 3 dimensions was .90.

Depression. We used the *Adolescent Well-Being Scale*, an instrument derived from the *Depression Self-Rating Scale for Children* (Birleson, 1981), and aimed to assess depressive symptoms and well-being among children and adolescents. Items were rated on a 3-point Likert scale (0 = "most of the time", 1 = "sometimes", 2 = "never"), and the total score was obtained by averaging the individual scores. Example items included: "I sleep very well"; "I am good at things I do". Because the alpha Cronbach coefficient for the 17-item scale was low (i.e., .62), we eliminated items 8 and 9, and the final Cronbach's alpha coefficient was .75.

2.3. Data analyses

The data analyses were conducted using IBM SPSS 24.0 and the macro PROCESS 4.0 (Hayes, 2022) for mediation analysis. First, we calculated descriptive statistics, Cronbach's alpha, and correlations between measures. For mediation analyses, we used bootstrapping with 5000 bootstrap resamples to examine indirect effects in mediation models. Confidence intervals that do not contain zero indicate a significant indirect effect (mediation).

3. Results

3.1. Preliminary analysis

Descriptive statistics and correlations between measures are reported in Table 1. Results show that school climate was significantly negatively correlated with aggression ($r = -.53$, $p < .001$), victimization ($r = -.48$, $p < .001$), and depression ($r = -.37$, $p < .001$), and significantly positively correlated with positive behavior ($r = .38$, $p < .001$). Depression was also found to be significantly positively correlated with aggression ($r = .43$, $p < .001$) and victimization ($r = .38$, $p < .001$), and significantly negatively correlated with positive behavior ($r = -.49$, $p < .001$).

There were also gender differences regarding school climate ($t = 3.82$, $p < .001$), aggression ($t = 9.56$, $p < .001$), victimization ($t = 6.66$, $p < .001$), positive behavior ($t = 2.95$, $p < .01$), and depression ($t = 2.54$, $p < .05$), with female students scoring significantly higher on school climate and positive behavior, and male students scoring significantly higher on aggression, victimization and depression.

Table 1. Scale means, standard deviations, and correlations between study variables

Variables	M	SD	1	2	3	4	5
1. School climate	3.64	.71					
2. Aggression	1.34	1.25	-.53*				
3. Victimization	1.55	1.04	-.48*	.77*			
4. Positive behavior	2.12	.81	.38*	-.36*	-.32*		
5. Depression	1.70	.26	-.37*	.43*	.38*	-.49*	

Note: $N = 214$; * $p < .001$.

3.2. Mediation analyses

Gender was introduced as a covariate in the model, due to its significant relationship with the dependent variable.

The results show that there is a full mediation effect of aggression and positive behaviors on the relationship between school climate and depression (Figure 1). Thus, a high school climate leads to a depression reduced only indirectly, by: (1) decreasing the aggression that leads to a decrease in depression and (2) increasing the positive behaviors that lead to a decrease in depression (Table 2).

Table 2. Direct and indirect effects of school climate on depression
Standardized indirect effects with bootstrapped 95% confidence intervals for the hypothesized model

Predictor	Mediator	Dependent variable	Total effect	Direct effect	Indirect effect [95% CI]
School climate	Aggression	Depression	-.29*	-.05	-.092 [-.183, -.007]
	Victimization				-.030 [-.100, .037]
	Positive behavior				-.116 [-.181, -.062]

Note: * $p < .001$; results based on 5000 bootstrap samples; CI – bias-corrected 95% confidence interval for the indirect effects

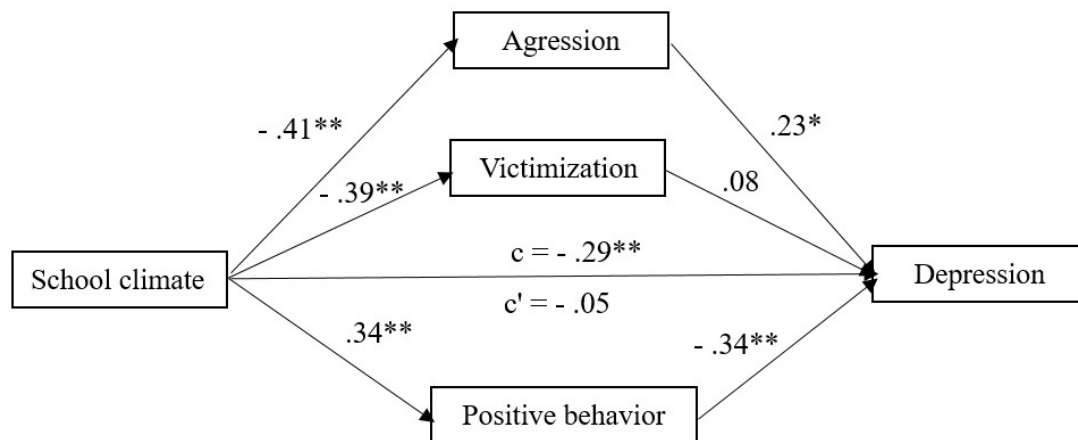


Figure 1. Aggression and positive behaviors mediate the relationship between school climate and depression

4. Discussion

The present study examined the relationship between school climate, bullying, and depressive symptoms among preadolescents. Based on previous research, the following hypotheses were formulated:

H1. Perceived school climate significantly correlates with aggression, victimization, positive behaviors, and depression.

H2. Depression significantly correlates with aggression, victimization, and positive behaviors.

H3. Bullying behaviors and depressive symptoms differ by gender.

H4. Bullying mediates the relationship between school climate and preadolescent depression.

In relation to the first hypothesis, the results reveal that students' positive perceptions of school climate are significantly associated with a higher frequency of prosocial behaviors and, conversely, with lower levels of victimization, bullying, and depressive symptoms. These results are consistent with previous research. According to Wang and Degol (2016), students who perceive their school environment as safe and supportive tend to demonstrate more empathetic and cooperative behaviors, while showing less aggression. A favorable school climate is linked to numerous benefits, including a more stable self-concept, improved self-esteem, better mental and physical health, enhanced educational outcomes, and stronger school engagement (Cohen et al., 2009; Thapa et al., 2013). Moreover, positive teacher-student relationships are associated with reduced depressive symptoms among students (LaRusso et al., 2008). At the broader school level, when students perceive their environment as supportive, caring, and respectful, they are more likely to turn to teachers for assistance in cases of aggression or threats of violence (Eliot et al., 2010).

The second hypothesis shows that depression is significantly negatively correlated with positive behaviors. Integration into the class group, a sense of safety, and the existence of friendly relationships reduce the risk of experiencing depressive symptoms. By comparison, bullying and victimization demonstrate a significant positive relationship with depression, indicating that both bullies and victims of this phenomenon experience emotional distress, difficulty in detaching, nightmares, sleep disturbances, and a strong sense of loneliness. Much research has demonstrated a strong link between experiences of bullying and increased depressive symptoms. Victims of bullying frequently report higher levels of anxiety, depression, and emotional difficulties (Hawker

& Boulton, 2000; Arseneault et al., 2010). For example, the meta-analysis by Hawker & Boulton (2000) found that victimization is a consistent predictor of depressive symptoms and decreased self-esteem.

An important aspect is highlighted by the results of the third hypothesis, which shows that female students score significantly higher on school climate and positive behavior, and male students score significantly higher on aggression, victimization, and depression. Klein et al. (2012) highlighted that boys are more inclined toward aggressive behavior and direct bullying, whereas girls demonstrate a higher tendency to request support when confronted with aggression or threats. Girls also perceived the school climate as more supportive, especially in terms of relationships with teachers and emotional safety in school. These outcomes show notable gender differences in how school climate is perceived and how bullying behaviors manifest, emphasizing the need for tailored approaches for boys and girls. While boys might benefit from strategies focused on reducing aggression and managing anger, girls might be supported more effectively by promoting emotional support and strengthening a sense of belonging to the school group.

Finally, the fourth hypothesis demonstrates that there is a full mediation effect of aggression and positive behaviors on the relationship between school climate and depression. When students view the school climate positively, they display fewer aggressive tendencies and experience lower levels of depression. In addition, this supportive environment encourages prosocial behaviors, leading to a further decline in depression. A negative perception of the school climate, defined by limited support from teachers, frequent conflicts, and a reduced sense of safety, is often associated with a higher incidence of bullying behaviors (Espelage & Swearer, 2010). In turn, repeated exposure to bullying, either as a victim or as an aggressor, is strongly linked to increased risk of emotional disorders, especially depressive symptoms (Arseneault et al., 2010). Victimization, although important as an outcome of a negative climate, does not act as a universal mechanism through which climate influences emotional health. The association between school climate and victimization could be influenced by mediators such as attachment to the school environment, interpersonal relationship dynamics, and the role of teachers in conflict management. Eugene et al. (2021) suggest a possible explanation, showing that school connectedness mediates the relationship between school climate and victimization, while parental involvement moderates this process.

4.1. Limitations

The current research highlights important limitations that influence how the results on school climate, bullying, and depression can be interpreted, given the hypotheses previously formulated. First, the sample was relatively small and was collected only from a specific area of the country, which limits the representativeness and generalizability of the conclusions to the entire school population. Thus, future research should use larger and more geographically diverse samples to better capture the variability of educational contexts. Second, the study has a cross-sectional design, analyzing the relationships between variables at a single point in time, which restricts the ability to capture the temporal dynamics of the relationship between school climate, bullying, and depression. Conducting a longitudinal study could reveal how these connections evolve. Additionally, the finding that victimization did not mediate the relationship between school climate and depression suggests that there may be other mediating or moderating factors, such as social support, emotion regulation, or self-esteem, that were not considered in this study. Future research could investigate these factors to better understand the complex mechanisms through which school climate affects mental health and bullying.

5. Conclusions and implications

The results of this study highlight the importance of the school climate for the mental health of students. A school climate that promotes physical and emotional safety, good cooperation with teachers and peers, leads to greater student involvement in prosocial behaviors and to a decrease in victimization, aggression, and depressive symptoms. The results could have several practical applications within the educational setting.

First, the results show that viewing the school climate as positive is vital for preventing depressive symptoms in preadolescents. Schools in which students feel respected and safe are less likely to foster environments that enable aggression and victimization. Therefore, educational strategies should prioritize reinforcing positive student-teacher relationships and cultivating a school culture grounded in empathy, inclusion, and support.

On the other hand, the results reveal that bullying functions as a mediator in the relationship between school climate and students' depressive symptoms. This highlights the need for teachers to be trained not only in managing curricular content but also in early identification and intervention in bullying situations. In this regard, continuous training of teachers in the field of school violence prevention and the development of socio-emotional skills is important. For example, teachers could implement prevention programs that include activities to develop empathy, nonviolent communication, or conflict management, thus contributing to the creation of a safer school environment.

Significant gender differences also indicated that girls tend to exhibit prosocial behaviors more frequently and perceive a more positive school climate, while boys have higher scores on bullying, victimization, and depressive symptoms. The results emphasize the importance of implementing interventions tailored to gender, taking into account the distinct emotional and behavioral characteristics of boys and girls.

This research shows that a positive perception of school climate not only encourages prosocial behaviors but also has a protective role in the mental health of students. Therefore, educational policies and pedagogical practices should explicitly include systemic measures to prevent bullying, provide emotional support, and the development of a school culture based on mutual respect and inclusion.

Authors' contribution

All authors contributed equally to this research.

Conflict of interest statement

The authors have not reported any potential conflict of interest in relation to this study.

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