REVIEW OF PSYCHOPEDAGOGY
REVISTA DE PSIHOPEDAGOGIE

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

DOI: https://doi.org/10.56663/rop.v13i1.72

Bullying and Performance. The Role of School Climate

Alina Chiracu, PhD[1]; Smaranda Guțu, PhD[1]; Florinda Golu, PhD[1]; Cristian Buică-Belciu, PhD[1]

Abstract

This study aims to investigate the relationships among bullying, school climate, and academic performance in students. The first objective is to identify the differences in bullying according to students' gender. The second objective is to analyse the predictive role of bullying and school climate on academic performance, providing insights into the complex dynamics within educational environments. The participants were 395 students aged between nine and 19 years, M = 13.14, SD = 2.56, 196 boys (50%) and 199 girls (50%). Findings from this study have important implications for educators, policymakers, and school administrators. By understanding the relationship among bullying, school climate, and academic performance, schools can develop targeted interventions aimed at fostering a positive school climate that minimizes bullying and promotes academic success for all students.

Keywords: bullying, school climate, academic performance, gender differences, predictive role, educational environments, student outcomes, targeted interventions, positive school climate, academic success, adolescents, educational policy, school administrators.

Introduction

Gender differences in bullying among students

Bullying is a pervasive issue across educational stages, affecting the psychological, social, and academic well-being of students. Gender differences in bullying have been a significant focus of research, as boys and girls often experience and engage in bullying differently. While boys are typically associated with more overt, physical forms of bullying, girls are often involved in relational or emotional bullying. These differences can evolve with age, resulting in varied experiences across primary, secondary, and high school. Understanding the nuances of gender-specific bullying behaviors is essential for designing effective interventions across educational levels (Olweus, 1993; Swearer et al., 2010).

Research consistently shows that boys and girls display different types of bullying behaviors, often influenced by social and cultural expectations regarding gender roles. Boys are more likely to engage in direct forms of bullying, such as physical aggression, due to social norms that associate masculinity with dominance and physical strength (Espelage & Swearer, 2003). Conversely, girls are more inclined to use relational or indirect bullying, including gossip, exclusion, and rumor-spreading, aligning with social expectations for girls to maintain social hierarchies through non-physical means (Crick & Grotpeter, 1995).

These gender differences may also influence the way bullying is experienced. Girls are more likely to report emotional distress from relational bullying, which can impact their social networks and sense of belonging. Boys, however, may experience bullying that affects their sense

[1] University of Bucharest, Faculty of Psychology and Educational Science, Romania
Corresponding Author:
Email: alina.chiracu@fpse.unibuc.ro

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

of physical security and dominance, leading to different psychological outcomes, including aggression or retaliation (Pellegrini & Long, 2002).

In primary school, bullying behaviors often emerge and are influenced by children's developing social skills and the gendered expectations present even at early ages. Studies have found that boys in primary school are more likely to engage in physical bullying, such as hitting or pushing, which may be more visible and recognizable to teachers (Salmivalli & Peets, 2009). Girls at this age are more likely to engage in relational bullying, a trend that becomes more pronounced as they advance in age.

As students transition into secondary school, the prevalence and nature of bullying change, and gender differences in bullying become more pronounced. Physical bullying among boys remains prevalent, although it may decrease slightly due to increased disciplinary measures in schools (Nansel et al., 2001). At the same time, boys may engage in more verbal bullying to assert dominance. Girls, on the other hand, increase their use of relational aggression in secondary school, often as a means of controlling social networks and maintaining social status (Underwood, 2003).

In high school, bullying behaviors often become more complex, with both boys and girls using a mix of physical, verbal, and relational tactics, albeit in gendered ways. Physical bullying generally decreases, while verbal and cyberbullying have become more common among both genders (Smith et al., 2008). Boys in high school are more likely to engage in verbal taunts and public humiliation as forms of bullying, while girls often rely on relational and cyberbullying strategies that allow for anonymity and avoidance of direct confrontation (Wang et al., 2011).

Taking into account the above, we try to investigate if there are gender differences in bullying in our group of participants and formulate the following hypothesis:

H1. *Boys manifest more bullying behaviors than girls*.

Bullying and academic performance

Defined as repeated, intentional harm directed at a student who finds it difficult to defend themselves (Olweus, 1993), bullying can manifest in various forms: physical, verbal, social, and increasingly, cyberbullying. Research has established a link between bullying and a range of negative outcomes, with academic performance emerging as a particularly concerning area (Espelage et al., 2013).

Exposure to bullying can significantly disrupt cognitive functioning, which in turn affects academic performance. Victimized students often experience chronic stress, which can interfere with cognitive processes essential for learning, such as memory, attention, and problem-solving (Swearer & Hymel, 2015). For instance, McEwen (2012) found that sustained stress can lead to structural and functional changes in the brain, particularly in areas related to executive functioning and emotional regulation. For students subjected to bullying, this chronic stress response may impair concentration and retention, hindering their ability to focus on academic tasks.

In primary and secondary school students, where cognitive skills are still developing, the impact of bullying on memory and attention can be particularly detrimental. Studies indicate that younger students who experience bullying exhibit a reduced ability to perform on memory and concentration tasks, ultimately leading to lower academic achievement (Ladd et al., 2009). Secondary students, although generally more cognitively mature, may experience similar issues, with the additional challenge of managing the social complexities of adolescence, which can further amplify the cognitive strain caused by bullying.

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

Bullying also impacts school engagement, an essential factor in determining academic performance. School engagement includes the behavioral, emotional, and cognitive investment that students make in their education (Fredricks et al., 2004). Victimized students often demonstrate lower levels of school engagement, which is closely tied to academic success (Wang et al., 2014).

Several studies have shown that students who are bullied are more likely to develop negative attitudes toward school, attend less frequently, and participate less actively in classroom activities (Juvonen et al., 2011). This disengagement is particularly pronounced in secondary students, who may respond to bullying by withdrawing from the school community, resulting in decreased participation and ultimately lower academic performance (Beran et al., 2008). School avoidance behaviors, such as skipping classes or engaging minimally, further exacerbate the problem by depriving students of learning opportunities and reducing their overall academic achievement.

The cumulative effects of disrupted cognitive functioning and decreased school engagement due to bullying ultimately impact academic performance. Numerous studies have documented a negative correlation between bullying and academic outcomes, with bullied students frequently showing lower grades, poorer test performance, and decreased educational aspirations (Glew et al., 2005). In a longitudinal study, Rueger and Jenkins (2014) observed that students who reported frequent bullying showed significant declines in academic performance over time compared to non-bullied peers.

Furthermore, the negative impact of bullying on academic performance has been shown to be enduring, with effects that may persist long after the bullying ceases. For example, a study by Nakamoto and Schwartz (2010) found that the academic disadvantages associated with bullying could continue to affect students' performance even after they leave the bullying environment, impacting long-term academic success and reducing opportunities for higher education.

Taking into account the above, we aim to verify if bullying is linked to academic performance and formulate the following hypothesis:

H2. *Bullying is a significant negative predictor of academic performance*.

Bullying, school climate and academic performance

The relationship between bullying and academic performance is well-documented, with studies indicating that students who experience bullying often demonstrate lower academic outcomes (Beran & Lupart, 2009; Glew et al., 2005). However, recent research suggests that this relationship may be influenced by contextual factors such as school climate. School climate, encompassing aspects like teacher support, peer relationships, and the overall feeling of safety within a school, may moderate the negative impact of bullying on academic performance (Wang et al., 2014). Our study explores the cumulative role of bullying and school climate on academic performance, proposing that a positive school environment may buffer the detrimental effects of bullying on students' academic achievement.

Bullying is widely recognized as a significant predictor of negative academic outcomes. Students who experience bullying often face increased levels of stress, anxiety, and social isolation, which can lead to decreased concentration, motivation, and engagement with schoolwork (Juvonen et al., 2011). Victimized students frequently demonstrate lower grades, reduced participation in classroom activities, and a diminished sense of belonging within the school environment, all of which contribute to poorer academic performance (Swearer et al., 2010).

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

Notably, the impacts of bullying on academic performance are not confined to a single grade level, but can persist across both primary and secondary education, affecting students' long-term academic trajectories (Rueger & Jenkins, 2014).

School climate is an overarching term that describes the quality and character of school life, including students' perceptions of safety, relationships, and the supportiveness of teachers and administrators (Cohen et al., 2009). A positive school climate is marked by high levels of trust, mutual respect, and inclusivity, and has been associated with better academic performance, increased motivation, and a reduction in aggressive behaviors (Brand et al., 2003). On the contrary, a negative school climate, characterized by a lack of support and poor student-teacher relationships, has been linked to higher rates of bullying and negative academic outcomes (Espelage et al., 2013).

In a supportive school climate, students may feel safer and more valued, which can help buffer the adverse effects of bullying. Positive school climates may foster resilience, providing bullied students with social support and resources that help mitigate the negative academic impacts of victimization (Wang et al., 2014). Conversely, in schools with poor climate, the detrimental effects of bullying on academic performance may be exacerbated, as students feel isolated and unsupported, lacking resources to cope effectively with bullying experiences (Thapa et al., 2013).

A positive school climate promotes strong peer and teacher relationships, which can provide bullied students with critical social support. Social support acts as a protective factor, reducing feelings of isolation and increasing resilience, thereby helping bullied students maintain engagement with their studies (Cohen et al., 2009). Supportive relationships in the school environment foster a sense of belonging, encouraging students to attend classes and participate actively despite bullying experiences (Glew et al., 2005).

In a positive school climate, students are more likely to perceive the school as a safe and emotionally supportive space, which can reduce the psychological distress associated with bullying. Reduced stress levels allow students to focus better on academic tasks and perform at their full potential, even in the face of bullying (Thapa et al., 2013). Conversely, a negative school climate may worsen the anxiety and stress associated with bullying, leading to greater disengagement from academic activities.

Schools with a positive climate often implement conflict resolution programs and provide access to counseling services that can help students deal with bullying constructively (Espelage & Swearer, 2004). Such resources can empower students to address bullying and adopt coping strategies that prevent bullying from disrupting their academic pursuits. The availability of these resources in a supportive school climate equips students to handle bullying without it negatively affecting their academic performance.

Considering the above, we try to examine if school climate is also a predictor of academic performance, above and beyond bullying and formulate the following hypothesis:

H3. *School climate is a significant predictor of academic performance, above and beyond students' gender, age and bullying behavior.*

Method

Participants and procedure

The participants were 395 students aged between nine and 19 years, M = 13.14, SD = 2.56, 196 boys (50%) and 199 girls (50%). Regarding education level, 31 are in third grade (8%), 39 are

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

in fourth grade (10%), 39 are in the fifth grade (10%), 56 are in the sixth grade (14%), 96 are in the seventh grade (24%), 46 are in the nineth grade (12%), 31 are in the tenth grade (8%), 22 are in the eleventh grade (6%), and 35 are in the twelfth grade (8%).

The sample was a convenience one. The participants are enrolled in three schools in Ilfov county. First, permission was obtained from the schools and teachers to allow access to the students during class hours. The students were informed about the study through their teachers and were invited, along with their parents, to a meeting where the research details were explained. For those who agreed to participate, parental consent was obtained by signing a document prepared for this purpose. Additionally, parents read and signed the informed consent and GDPR agreement. Student participation was voluntary, and they were not rewarded in any way. One of the study's authors administered the pencil-and-paper tests in the students' classrooms, ensuring that all students had the same testing conditions. Completing the questionnaires took approximately 30 minutes. Primary school students received support from teachers if they found some items difficult to interpret. A study author, a teacher, and the school counselor attended the testing sessions. Research ethics standards, data confidentiality, and participant anonymity were maintained. Out of a total of 500 informed students, only 395 participated by completing all the questionnaires (79%). The data was collected between January and March 2024.

The data collected was organized in Excel tables and statistically processed using IBM SPSS 24 (IBM Corp, 2016) and the medmod GLM module in Jamovi (The jamovi project, 2022).

Instruments

Demographics were collected through a list of questions regarding age, gender and grade.

Bullying was measured with Bullying Participant Behaviors Questionnaire (BPBQ) (Demaray et al., 2016). The instrument comprises 50 items and measures five bullying roles: aggressor, assistant, victim, defender, and outsider. The bully subscale measures the frequency of participation in behaviors that are considered to be bullying, the assistant subscale assesses the willingness to encourage, join in, or aid a bully in bullying others, the victim subscale assesses the frequency of behaviors that one experiences being bullied, the defender subscale assesses the frequency of participation in behaviors related to defending a victim, and the outsider subscale contains items about the frequency with which a student acknowledges bullying occurs but decides to actively ignore it. The responses are offered on a 5-points Likert scale, 0 - never, 1 - 1 to 2 times, 2 - 3 to 4 times, 3 - 5 to 6 times, 4 - 7 or more times, thinking at the last 30 days. Item examples: "I defended someone who was being pushed, punched, or slapped", "I have made fun of another student", "When someone was verbally threatening another student,
I joined in".

School climate was measured with Perceived School Climate Script (PSCS; Felner, 1997). The scale was developed by the Center for Prevention Research and Development (CPRD) (see Felner et al., 1997). The questionnaire is based on the Classroom Environment Scale (Trickett & Moos, 1973), a widely used and well-validated measure. Changes to the Classroom Environment Scale involved rewording items to eliminate double negatives and providing more familiar language for colloquial terms. The instrument consists in 31 items and measures a series of school climate dimensions: teacher support, peer support (conflict), affiliation, opportunity for autonomy, school structure and norms, school harshness. The answers are given on a 5-points Likert scale, where 1 - not at all and 5 - very often. Item examples: "Students in this school are mean to each other", "Students in this school get to know each other really well", "Teachers are very strict here".

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

Academic performance was measured with Perception of School Performance, an instrument developed by the authors of this study to assess the extent to which students perceived themselves as proficient in learning. The instrument consists in eight items, and the answers are given on a 5-points Likert scale, where 1 – not at all and 5 – very often. Item examples: ”I spend enough time doing my homework”, ”I usually understand what I try to learn”, ”I have good grades”.

Design

This study has a cross-sectional correlational and differential design.

Results

Descriptive statistics

Means, standard deviations, Cronbach Alpha coefficients and correlations between variables are presented in Table 1.

Table 1.

Means, standard deviations, Cronbach Alpha coefficients and correlations between variables

	M	SD	α	1. BUAG	2. BUAS	3. BUVI	4. BUSA	5. BUOU	6. TESU	7. PECO	8. AFIL	9. OPAU	10. SCST	11. SCHA	12. PERF
1	20.27	8.07	.83	1											
2	18.32	8.71	.89	.75**	1										
3	21.77	9.64	.89	.46**	.40**	1									
4	27.57	10.04	.88	.20**	.16**	.30**	1								
5	21.06	8.90	.87	.54**	.60**	.32**	.19**	1							
6	3.08	.90	.77	-.14**	-.04	-.08	.15**	-.07	1						
7	2.92	.94	.79	.12*	.13*	.28**	.21**	.07	.11*	1					
8	3.35	.97	.70	-.06	-.00	-.08	.16**	-.03	.48**	.01	1				
9	2.78	.87	.68	.10*	.17**	.05	.15**	.13**	.41**	.10*	.39**	1			
10	3.48	.97	.81	-.20**	-.15**	-.12*	.09	-.10*	.48**	.15**	.56**	.29**	1		
11	2.83	.87	.70	.15**	.15**	.29**	.25**	.14**	.12*	.32**	.10*	.25**	.18**	1	.
12	28.72	6.88	.86	-.10*	-.11*	-.06	.20**	-.10*	.47**	.11*	.40**	.21**	.49**	.09	1

*Note: **. $p < .01$, *. $p < .05$.*

1. BUAG – bully aggressor, 2. BUAS – bully assistant, 3. BUVI – bully victim, 4. BUSA – bully defender, 5. BUOU – bully outsider, 6. TESU – teacher support, 7. PECO – peer conflict, 8. AFIL affiliation, 9. OPAU – opportunities for autonomy, 10. school standards and rules, 11. SCHA – school harshness, PERF – perceived performance

Hypotheses testing

H1. *Boys manifest more bullying behaviors than girls*.

In order to test H1 hypothesis, we conducted an Independent Samples t test.

Table 2.

Means and standard deviations for bullying according to students' gender

	Gender	N	M	SD	SE
BUAG	Boys	196	22.34	8.38	0.60
	Girls	199	18.24	7.21	0.51
BUAS	Boys	196	20.59	9.16	0.65
	Girls	199	16.10	7.63	0.54
BUVI	Boys	196	23.38	9.98	0.71
	Girls	199	20.20	9.04	0.64

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

BUSA	Boys	196	27.76	9.97	0.71
	Girls	199	27.39	10.13	0.72
BUOU	Boys	196	22.62	9.27	0.66
	Girls	199	19.53	8.27	0.59

Note: BUAG – bully aggressor, BUAS – bully assistant, BUVI – bully victim, BUSA – bully defender, BUOU – bully outsider

Table 3.
Independent samples t test for bullying according to students' gender

						95% CI		
	t	**df**	**p**	**MD**	**SED**	**Lower**	**Upper**	**d**
BUAG	5.21 [a]	393.00	< .001	4.10	.79	2.55	5.64	.52
BUAS	5.30 [a]	393.00	< .001	4.49	.85	2.82	6.16	.53
BUVI	3.32	393.00	< .001	3.18	.96	1.30	5.07	.33
BUSA	.36	393.00	.72	.36	1.01	-1.63	2.35	.04
BUOU	3.49	393.00	< .001	3.08	.88	1.35	4.82	.35

Note: [a] Levene's test is significant (p < .05), equal variances not assumed; MD – mean difference

H2. *Bullying is a significant negative predictor of academic performance*.

H3. *School climate is a significant predictor of academic performance, above and beyond students' gender, age and bullying behavior.*

In order to test these hypotheses, we conducted a multiple hierarchical regression. In step 1 we have introduced gender and age, in step 2 we have introduced the five dimensions of bullying, and in step 3 we have introduced the six dimensions of school climate.

Table 4.
Multiple hierarchical regression for gender, age, bullying and school climate as predictors of perceived academic performance

Variable	B	95%CI LL	UL	SE	β	t	p	R^2	ΔR^2
Step 1								.07	.07**
Constant	34.62	30.65	38.59	2.02		17.14	.00		
Age	-.63	-.89	-.38	.13	-.24**	-4.84	.00		
Gender	1.61	.30	2.93	.67	.12*	2.41	.02		
Step 2								.11	.05**
Constant	33.28	28.54	38.02	2.41		13.80	.00		
Age	-.59	-.85	-.34	.13	-.22**	-4.55	.00		
Gender	1.20	-.14	2.54	.68	.09	1.75	.08		
BUAG	-.02	-.14	.11	.06	-.02	-.24	.81		
BUAS	-.01	-.13	.10	.06	-.02	-.23	.82		
BUVI	-.07	-.15	.01	.04	-.10	-1.80	.07		
BUSA	.16	.09	.23	.03	.23**	4.63	.00		
BUOU	-.04	-.13	.05	.05	-.05	-.83	.41		
Step 3								.35	.23**
Constant	14.10	8.65	19.56	2.78		5.08	.00		
Age	-.18	-.41	.06	.12	-.07	-1.44	.15		
Gender	.23	-.95	1.41	.60	.02	.39	.70		
BUAG	.08	-.04	.19	.06	.09	1.34	.18		
BUAS	-.07	-.18	.03	.05	-.09	-1.38	.17		
BUVI	-.02	-.09	.05	.04	-.03	-.52	.60		
BUSA	.09	.03	.15	.03	.13**	2.93	.00		
BUOU	-.03	-.11	.05	.04	-.04	-.79	.43		

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

TESU	1.98	1.16	2.80	.42	.26**	4.75	.00
PECO	.22	-.44	.87	.33	.03	.64	.52
AFIL	.69	-.06	1.45	.39	.10	1.80	.07
OPAU	-.20	-.96	.57	.39	-.03	-.50	.62
SCST	2.06	1.30	2.82	.39	.29**	5.32	.00
SCHA	-.24	-.98	.49	.37	-.03	-.65	.51

*Note: **. p < .01.*

BUAG – bully aggressor, BUAS – bully assistant, BUVI – bully victim, BUSA – bully defender, BUOU – bully outsider, TESU – teacher support, PECO – peer conflict, AFIL affiliation, OPAU – opportunities for autonomy, school standards and rules, SCHA – school harshness

The hierarchical regression was employed using three models (steps). The final model included all 13 predictors. Overall, the final model accounted for 35% of the variance in academic performance. Model 1, predicting academic performance from students' age and gender accounted for a significant amount of variance, $F(2, 392) = 14.61$, $p < .01$, $R^2 = .07$. Only gender was significantly associated with perceived academic performance, $b = 1.61$, $\beta = .12$, $t = 2.41$, CI95%(.30, 2.93), $p < .01$, but not the students' age. Model 2 employed the addition of the five bullying roles (dimensions), which significantly increases the variance accounted for in academic performance, $F(7, 387) = 7.77$, $p < .01$, $R^2 = .12$. This second model showed a significant improvement from the first model, $\Delta F(2, 392) = 14.61$ and $\Delta F(5, 387) = 4.76$. The introduction of bullying increased the proportion of variance in academic performance from 7% to 12%. Of the five bullying roles, only the bullying defender was significantly and positively associated with perceived academic performance, $b = .16$, $\beta = .23$, $t = 4.63$, CI95%(.09, .23), $p < .01$, but not the other four bullying roles. Model 3 employed the addition of the six dimensions of school climate, which let to another significant increase in variance accounted for in academic performance, $F(13, 381) = 15.83$, $p < .01$, $R^2 = .35$. The third model showed a significant improvement from the first and second model, $\Delta F(6, 381) = 22.25$. The introduction of the six dimensions of school climate increased the proportion of variance in academic performance from 7% (model 1) and 12% (model 2) to 35% overall. Of the six school climate dimensions, only teacher support was significantly and positively associated with perceived academic performance, $b = 1.98$, $\beta = .26$, $t = 4.75$, CI95%(1.16, 2.80), $p < .01$ and school standards and rules, $b = 2.06$, $\beta = .29$, $t = 5.32$, CI95%(1.30, 2.82), $p < .01$, but not the other four school climate dimensions.

Discussions

Through hypothesis H1, we aimed to analyze gender differences in bullying, specifically the bullying roles. The results showed that boys scored higher than girls in all types of bullying roles, except for the bully defender role, where scores were relatively equal. This indicates that boys are more frequently found in the roles of victim, aggressor, assistant, and bystander. Considering that bullying is often a struggle for power and control, we can deduce that boys are more inclined to assert themselves among peers, including by taking on one of the bullying roles. The aggressor role highlights personal power and control over others through the use of physical force or aggressive words. The victim role attracts compassion from others and the attention of the peer group, putting victimized students in the spotlight. While at first glance, the assistant and bystander roles offer a neutral position, but interested party in the course of events, but by engaging in either role, boys assert themselves, taking an active role of aid. All these roles emphasize, in one way or another, the students involved in bullying acts and their desire to assert control over their peers.

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

Our results are congruent with other international studies. Research by Craig and Pepler (2007) shows that, in primary school, boys are more often the perpetrators of bullying, while girls are more likely to be involved in verbal forms of aggression. However, both boys and girls are often unaware of the impact of these behaviors on their peers at this young age. Gender-specific interventions, such as teaching empathy and conflict resolution skills, can be effective in reducing bullying behaviors in primary school (Murray-Harvey & Slee, 2010). In secondary school, girls tend to be more impacted by relational bullying, which can lead to emotional distress, lowered self-esteem, and mental health issues such as depression and anxiety (Rivers & Smith, 1994). Boys who experience bullying, whether physical or verbal, often face challenges related to their self-image and can become more aggressive, sometimes perpetuating cycles of bullying (Espelage et al., 2003). These findings suggest that secondary schools should tailor anti-bullying programs to address the different forms of bullying experienced by boys and girls.

Through hypothesis H2 we aimed to investigate the relationships among age, gender, bullying roles, educational climate, and perceived academic performance. The results showed that age is negatively associated to academic performance and girls reported higher perceived academic performance in primary, middle, and high school classes students. After introducing bullying into the regression equation, the students' gender was no longer significantly associated with performance, among the five bully roles, only the role of bully defender being significantly positively correlated with perceived performance. After entering the school climate dimensions into the regression equation, only school standards and norms were observed to be significantly positively associated with perceived performance.

These results suggest that as students get older, they have a lower perception of school performance, with girls showing a higher concern for school tasks and learning. Students who take on the bully defender role report higher achievement, and school standards and norms also contribute to students' higher perceptions of their school performance. Therefore, the fact that students emerge in the role of defenders and not in other bullying roles is closely related to the perception of school performance. Those who believe that they engage in fair conduct have a positive self-image in the context of school results as well. At the same time, the school's standards and rules impose order and discipline in the school, as students believe that these are essential factors to achieve high school performance.

Practical implications

Gender differences in bullying behaviors are evident across primary, secondary, and high school levels, with boys generally more involved in physical bullying and girls in relational bullying. These differences evolve over time, influenced by social expectations and developmental changes, and have distinct psychological and social consequences for each gender. Recognizing these differences and implementing gender-responsive interventions in schools is essential for effectively addressing the issue of bullying and supporting students' overall well-being. The consequences of bullying can differ based on gender, with each gender displaying distinct coping mechanisms and vulnerabilities. Girls, due to their involvement in relational bullying, may experience significant social anxiety, emotional distress, and an increased risk of depression (Prinstein et al., 2001). The social exclusion that characterizes relational bullying can undermine girls' sense of social belonging and lead to long-lasting psychological consequences. Boys, on the other hand, are more likely to display externalizing behaviors in response to bullying, including aggression, substance abuse, and truancy (Espelage & Holt, 2001). These reactions can further

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

perpetuate a cycle of bullying, as boys may bully others as a coping mechanism or means of reclaiming lost status.

Gender-specific interventions can be beneficial in addressing the unique ways that boys and girls experience and perpetrate bullying. Programs that encourage empathy, conflict resolution, and understanding of emotional impact may be particularly effective for girls, who are more involved in relational bullying. Boys, on the other hand, may benefit from programs that focus on managing anger and understanding the consequences of physical aggression.

School-wide programs that promote positive peer interactions and teach students about the different forms and effects of bullying have been shown to reduce bullying behavior among both boys and girls (Espelage & Swearer, 2003). Educators and policymakers should consider these gender differences in bullying behaviors when designing prevention and intervention strategies to effectively reduce bullying and support the social and emotional well-being of all students.

Understanding the link between bullying and academic performance has significant implications for educational policy and intervention. Schools have a critical role to play in preventing bullying, improving the school climate, and supporting victims to reduce the adverse effects of bullying on academic performance. Implementing anti-bullying programs that emphasize social-emotional learning, empathy-building, and conflict resolution can contribute to a safer and more inclusive school environment (Ttofi & Farrington, 2011).

Moreover, teachers and school counselors can work to identify and support students who may be at risk of academic decline due to bullying. Providing resources, such as counseling services and peer support programs, can help bullied students build resilience, improve their school engagement, and ultimately reduce the academic consequences of bullying (Swearer et al., 2010). By fostering a supportive school environment and addressing bullying proactively, schools can help mitigate the negative effects on students' academic performance and promote a more equitable educational experience for all students.

The impact of bullying on academic performance may vary between primary and secondary students, as well as by the type of bullying experienced. Younger students, who are often more vulnerable and have fewer coping mechanisms, may experience greater disruptions in academic performance, particularly when physical or overt forms of bullying are involved (Gini & Pozzoli, 2013). In secondary students, verbal and social forms of bullying, such as social exclusion and rumor-spreading, are more common and may have a significant impact on social and academic self-esteem, which in turn affects academic engagement and performance (Rose et al., 2011).

Cyberbullying, which has become increasingly prevalent among secondary students, presents additional challenges. Studies suggest that the pervasive nature of cyberbullying, which can occur both inside and outside of school hours, contributes to a persistent stressor that students carry with them even after the school day ends (Smith et al., 2008). This continuous exposure has been shown to have a particularly strong negative effect on academic performance due to constant distractions, anxiety, and avoidance behaviors associated with online victimization.

There are many mechanisms through which bullying affects learning and perceived performance. Bullying can cause significant psychological distress, leading to symptoms such as anxiety, depression, and low self-esteem. Psychological distress interferes with students' ability to concentrate on academic tasks and may lead to decreased motivation and academic withdrawal (Rigby, 2003). Bullying victims are more likely to miss school, either due to direct avoidance or health issues associated with stress and anxiety. Absenteeism disrupts learning, ultimately contributing to poorer academic outcomes (Cornell et al., 2013). Victims of bullying may struggle

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

to form positive relationships with peers, which are crucial for social support and engagement in school activities. A lack of peer support has been linked to reduced academic performance, as students feel less motivated and less connected to the school environment (Wentzel & Caldwell, 1997).

Several studies have highlighted the moderating role of school climate in the bullying-academic performance relationship. For instance, Konishi et al. (2010) found that a positive school climate could weaken the negative relationship between bullying and academic achievement among middle school students. In schools with a supportive environment, the academic performance of bullied students was less affected compared to those in schools with a less supportive climate. This suggests that elements of school climate, such as teacher support and positive peer interactions, play a significant role in buffering the academic consequences of bullying.

In a similar study, Wang et al. (2014) examined the impact of school climate on the relationship between bullying victimization and academic performance in a large sample of secondary students. Their results indicated that a positive school climate not only reduced the frequency of bullying incidents but also mitigated the impact of victimization on academic outcomes. Specifically, students in schools with high levels of perceived safety and teacher support reported higher levels of academic engagement and performance, even when they experienced bullying.

Schools should strive to foster a positive climate that prioritizes safety, inclusivity, and supportive teacher-student relationships. Anti-bullying programs that incorporate school-wide policies, staff training, and peer-support initiatives can help reduce the incidence of bullying and mitigate its effects on academic performance (Ttofi & Farrington, 2011). Furthermore, implementing social-emotional learning programs can promote resilience and positive relationships, strengthening the school climate and providing all students, particularly those who experience bullying, with the tools to succeed academically.

Schools that promote a positive climate may ultimately reduce the academic disparities caused by bullying, supporting an environment where all students could achieve their full potential. By focusing on school climate improvement, educators and policymakers can create protective contexts that buffer the negative academic impacts of bullying, promoting academic success and psychological well-being for all students.

Limitations and future research directions

Although the present study assumed a considerable effort for the composition of the research sample and for questionnaire application in students' classrooms, there are also a number of limitations that require us to interpret the results with caution. First, self-reported measures may lead to response bias, particularly with sensitive topics like bullying and school climate. Students reported low levels of bullying, despite accusing high bullying rates in informal talks during data collection. Regarding the school climate questionnaire, it has been brought to the authors' attention that smaller children were helped to fill in the questionnaire by their teachers and school counsellors, which might have influenced their answers.

Another limitation is the cross-sectional design. This type of design cannot definitively establish causation among bullying, school climate, and perceived academic performance. In our future research programs, we will employ longitudinal designs.

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

Reference

Beran, T. N., & Lupart, J. L. (2008). The relationship between bullying and school achievement. School Psychology International, 29(4), 437-454.

Brand, S., Felner, R. D., Shim, M., Seitsinger, A., & Dumas, T. (2003). Middle school improvement and reform: Development and validation of a school-level assessment of climate, cultural pluralism, and school safety. Journal of Educational Psychology, 95(3), 570-588.

Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. Teachers College Record, 111(1), 180-213.

Cornell, D., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of teasing and bullying predicts high school dropout rates. Journal of Educational Psychology, 105(1), 138.

Craig, W. M., & Pepler, D. J. (2007). Understanding bullying: From research to practice. Canadian Psychology/Psychologie Canadienne, 48(2), 86-93.

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. Child Development, 66(3), 710-722.

Demaray, M. K., Summers, K. H., Jenkins, L. N., & Becker, L. D. (2016). Bullying Participant Behaviors Questionnaire (BPBQ): Establishing a reliable and valid measure. Journal of School Violence, 15(2), 158–188. https://doi.org/10.1080/15388220.2014.964801.

Espelage, D. L., & Holt, M. K. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. Journal of Emotional Abuse, 2(2-3), 123-142.

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.

Espelage, D. L., & Swearer, S. M. (2004). Research on school bullying and victimization: What have we learned and where do we go from here? School Psychology Review, 32(3), 365-383.

Espelage, D. L., Hong, J. S., Rao, M. A., & Low, S. K. (2013). Understanding types, locations, and developmental timing of peer victimization. Journal of Youth and Adolescence, 42(2), 260-271.

Felner, R., Jackson, A., Kasak, D., Mulhall, P, Brand, S., & Flowers, N. (1997). The impact of school reform for the middle grades: A longitudinal study of a network engaged in Turning Points-based comprehensive school transformation. In R. Takanishi & D. Hamburg (Eds.), Preparing adolescents for the twenty-first century: Challenges facing Europe and the United States (pp. 38–69). Sage Press.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. Review of Educational Research, 74(1), 59-109.

Gini, G., & Pozzoli, T. (2013). Bullied children and psychosomatic problems: A meta-analysis. Pediatrics, 132(4), 720-729.

Glew, G. M., Fan, M.-Y., Katon, W., Rivara, F. P., & Kernic, M. A. (2005). Bullying, psychosocial adjustment, and academic performance in elementary school. Archives of Pediatrics & Adolescent Medicine, 159(11), 1026–1031.

Juvonen, J., Wang, Y., & Espinoza, G. (2011). Bullying experiences and compromised academic performance across middle school grades. Journal of Early Adolescence, 31(1), 152-173.

Konishi, C., Hymel, S., Zumbo, B. D., & Li, Z. (2010). Do school bullying and student-teacher relationships matter for academic achievement? A multilevel analysis. Canadian Journal of School Psychology, 25(1), 19-39.

McEwen, B. S. (2012). Stress, adaptation, and disease. Annals of the New York Academy of Sciences, 840(1), 33-44.

Murray-Harvey, R., & Slee, P. T. (2010). School and home relationships and their impact on school bullying. School Psychology International, 31(3), 271-285.

Nakamoto, J., & Schwartz, D. (2010). Is peer victimization associated with academic achievement? A meta-analytic review. Social Development, 19(2), 221-242.

Nansel, T. R., et al. (2001). Bullying behaviors among US youth: Prevalence and association with psychosocial adjustment. JAMA, 285(16), 2094-2100.

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

Pellegrini, A. D., & Long, J. D. (2002). A longitudinal study of bullying, dominance, and victimization during the transition from primary through secondary school. British Journal of Developmental Psychology, 20(2), 259-280.

Prinstein, M. J., et al. (2001). Peer victimization, aggression, and depression symptoms among adolescents: Gender and developmental considerations. Journal of Abnormal Child Psychology, 29(5), 471-485.

Rigby, K. (2003). Consequences of bullying in schools. Canadian Journal of Psychiatry, 48(9), 583-590.

ISSN 2784 – 3092
ISSN – L 2784 - 3092
psychopedagogy.unibuc.ro

Salmivalli, C., & Peets, K. (2009). Bullies, victims, and bully-victim relationships in middle childhood and early adolescence. Handbook of Peer Interactions, Relationships, and Groups, 322-340.

Sakellariou, T., et al. (2012). Cyberbullying and its relation to gender and age: Evidence from Greece and Romania. Procedia-Social and Behavioral Sciences, 46, 2819-2823.

Smith, P. K., et al. (2008). Cyberbullying: Its nature and impact in secondary school pupils. Journal of Child Psychology and Psychiatry, 49(4), 376-385.

Smith, P. K., Mahdavi, J., Carvalho, M., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. Journal of Child Psychology and Psychiatry, 49(4), 376-385.

Swearer, S. M., Espelage, D. L., & Napolitano, S. A. (2010). Bullying Prevention and Intervention: Realistic Strategies for Schools. Guilford Press.

Swearer, S. M., & Hymel, S. (2015). Understanding the psychology of bullying: Moving toward a social-ecological diathesis-stress model. American Psychologist, 70(4), 344-353.

Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. Review of Educational Research, 83(3), 357-385.

Trickett, E., & Moos, R. H. (1973). The social environment of junior high and high school classrooms. Journal of Educational Psychology, 65, 93–102

Ttofi, M. M., & Farrington, D. P. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. Journal of Experimental Criminology, 7(1), 27-56.

Wang, J., Nansel, T. R., & Iannotti, R. J. (2011). Cyber and traditional bullying: Differential association with depression. Journal of adolescent health, 48(4), 415-417.

Wang, X., Yang, L., Gao, L., Yang, J., Lei, L., & Wang, C. (2017). Childhood maltreatment and Chinese adolescents' bullying and defending: The mediating role of moral disengagement. Child abuse & neglect, 69, 134-144.