

DOI 10.51558/2490-3647.2024.9.2.35

UDK 37.06:364.632
316.642:373.3/.5

Primljeno: 26. 03. 2024.

Izvorni naučni rad
Original scientific paper

Katarina Serdar Čerpnjak, Matea Belošević, Martina Ferić

STUDENTS' REACTIONS TO PEER VIOLENCE IN RELATION TO THEIR PERCEPTION OF RISK AND PROTECTIVE FACTORS IN THE SCHOOL ENVIRONMENT

Global data shows that peer violence and bullying are widespread problems and that the consequences of these behaviours are significant for the future development of children and youth. This study aims to determine: (1) whether there are differences in the witnessing of peer violence depending on the educational level and gender of the students, (2) whether there are differences in students' reactions to peer violence depending on educational level, gender, and perceptions of risk and protective factors in the school environment. The sample consisted of 2,188 students (aged 10 to 19 years; 48,1% female) in the towns of Jastrebarsko and Samobor. The modified version of the CTC Youth Survey was used. The following statistical methods and analyses were used: descriptive statistics, Mann-Whitney U test, Chi-square test and Cramer's V. The results showed that a higher percentage of elementary school students reported witnessing peer violence than high school students. In terms of response to peer violence, elementary school students were more likely than high school students to ignore peer violence as if it was none of their business, to be amused, but also to try to do something to prevent peer violence. Regarding gender differences in students' responses to peer violence, it was found among elementary and high school students that boys tended to ignore peer violence as if it was none of their business and that they often "join in the party". Concerning protective factors in the school environment, it was found that elementary and high school students who perceive more opportunities and recognition for prosocial involvement at school are more likely to try to take action against peer violence. On the other hand, elementary school students who had not experienced academic failure were found to be more likely to react actively to stop peer violence, while high school students did not differ in their reaction to peer violence, regardless of whether or not they had

experienced academic failure. The results of this study could provide a basis for planning evidence-based prevention interventions to promote positive development and/or prevent peer violence in children and youth.

Key words: peer violence; risk and protective factors; student reactions; school environment, prevention

1. INTRODUCTION

Alongside the family, the school is the environment that has the strongest influence on the socialisation of children, and certainly also the environment that significantly impacts the developmental outcomes of children and youth. In the context of this paper, it is important to mention the social development strategy and the concept of risk and protective factors. The social development model or strategy represents a theory of human behaviour that assigns the aetiology of prosocial and antisocial behaviours to similar developmental processes, and it is important to emphasise that this theory integrates research on risk and protective factors (Cambron et al. 2019). In addition, the concept of risk and protective factors occupies a significant place in prevention science, as it highlights the importance of identifying relevant factors for different types of risk behaviour and understanding their mutual interaction and impact on different target groups (Durlak 1998). Many studies have identified risk and protective factors in the school environment that can influence the developmental outcomes of children and youth (e.g. Arthur et al. 2002; Cahir et al. 2010; Catalano et al. 2011; Haggerty and McCowan 2018; Bojčić and Mandić Vidaković 2022). Risk factors refer to characteristics, variables or hazards that, if present in a particular person or their environment, increase the likelihood of that person developing a problem, as opposed to people who are not exposed to these risks (Institute of Medicine (US) Committee on Prevention of Mental Disorders et al. 1994), while protective factors protect against the consequences that may result from exposure to risk factors by reducing the impact of the risk or influencing the way children and youth respond to risk factors (Bašić and Ferić 2004). Risk factors from the school environment for the occurrence of peer violence include academic failure, which begins in later primary school age, and lack of engagement in school (Catalano et al. 2011). In this context, children who fall behind in school for any reason are at greater risk of drug use, early school leaving, teenage pregnancy, violence and criminal behaviour. It has also been found that students with poorer academic performance are more likely to perpetrate

and experience peer violence (Bojčić and Mandić Vidaković 2022). Other risk factors in the school environment that have been associated with various risk behaviours in children and youth, such as harmful drug use, violence, delinquency and dropping out of school, are low school commitment (Arthur et al. 2002; Cahir et al. 2010; Catalano et al. 2011). On the other hand, numerous prospective longitudinal studies have identified four environmental factors that promote positive social development in different environments, including schools: (1) opportunities for prosocial involvement, (2) recognition for positive involvement, (3) bonding, and (4) healthy beliefs and standards for behaviour (Catalano et al. 2011). Opportunities for prosocial involvement in the school environment may include giving students a choice in selecting a task, involving them in setting standards of behaviour in the classroom and giving them equal opportunities to learn. Opportunities for prosocial involvement should be followed by recognition, where recognition refers to a skill or talent that the student develops and is positive (Haggerty and McCowan 2018).

As an educational institution, a school should be a safe place for everyone. Still, it is not uncommon for children and youth to experience violence from their peers in the school environment, whether they witness violence or perpetrate it themselves.

Peer violence has been defined as a repeated act that is intentionally carried out to harm others deliberately, follows a specific pattern and is not an isolated event (Karmaliani et al. 2017). When talking about peer violence, it can be direct (physical aggression, threats and teasing) or indirect (spreading rumours and exclusion from peer groups) (Lagerspetz et al. 1988, according to Corboz et al. 2018). Bullying, as a subcategory of peer violence (Rajhvajn Bulat and Ajduković 2012; Silva 2020), is generally a more targeted and chronic or repetitive type of peer violence (Juvonen and Graham 2014), and it is a more severe form of peer violence (Rajhvajn Bulat and Ajduković 2012).

Global data shows that peer violence and bullying is a widespread problem. Data from UNICEF's global databases (2023) show that about 35% of students (13-15 years) around the world have been bullied on one or more days in the last 30 days. Jadambaa et al. (2019) found that the annual prevalence of victimisation by traditional and cyberbullying among Australian children and adolescents was 15,17%, and that of perpetrators was 5,27%. The same study shows that victimisation and perpetration of cyberbullying are less common (7,02% lifetime prevalence).

The results of the study on peer violence in Croatia on a representative sample of children aged 11, 13 and 16 showed that 14,8% were victims of peer violence, 6,3% were perpetrators, and 14,8% of them were both victims and perpetrators (Sušac et

al. 2016). Ferić (2018) reported on the results of a study on a representative sample of students from 24 Zagreb high schools in Zagreb aged 14 to 19, which showed that 37% of students had witnessed peer violence in the last four weeks and 17% of them had experienced peer violence themselves. Croatian data from the International Health Behavior in School-aged Children (HBSC) study shows that 14,1% of boys and 9,7% of girls aged 11 have been bullied at least twice in the last few months, while 12,6% of boys and 11,3% of girls aged 13 and 8,3% of boys and 7,7% of girls aged 15 reported the same experience. On the other hand, 9,4% of boys and 4,1% of girls aged 11, 10,7 % of boys and 7,6 % of girls aged 13 and 9,4 % of boys and 4,4 % of girls aged 15 reported that they had bullied others at least twice in the last few months (Capak 2020).

The findings on the prevalence of peer violence and bullying show that these behaviours are a serious social problem, as many studies show that the consequences of such behaviours are numerous and often very serious [Corboz et al. 2018; Ferrara et al. 2019; Geremew et al. 2022; Halliday et al. 2021; Ratto et al. 2023; World Health Organization (WHO) 2015]. For example, bullying between the ages of 10 and 12 is associated with negative consequences in the areas of attitude towards school, academic achievement, and relationships (psychological and social). However, it should be emphasised that these consequences last up to 8 years after the victimisation (Halliday et al. 2021). In addition, the consequences may include injuries, involvement in other forms of health-risk behaviour (e.g. substance use, higher stress levels), mental health problems, involvement in different types of violence, poor academic performance, higher economic costs and negative effects on family and friends (WHO 2015).

One of the characteristics of peer violence is that it often takes place in front of witnesses (peers). Therefore, witnesses may play an important role in the occurrence of peer violence and the experience of peer violence. Older studies show a relatively low active reaction of students to peer violence. For example, Berkowitz (2014) reports that students rarely experienced a positive response to peer violence and explains that this data is consistent with previous research showing that while peers were present during most bullying episodes, they only intervened to stop the bullying in 10 to 11% of cases. However, more recent research shows that most students actively react to peer violence. For example, the study by Joo et al. (2020) shows that out of 477 elementary school students who witnessed bullying incidents, 69,8% told other people that they saw others being bullied, and 30% did not tell anyone. The results of the study conducted by Bauman et al. (2020) on a sample of children and

youth (12-25 years) show that 69,2% reported intervening when they witnessed an incident (sometimes or always). A study by Bellmore et al. (2021) involving 470 early adolescents showed that 92% of study participants reported that they would help in situations of peer violence and would be more likely to help if the victim of peer violence was their friend. When considering these results, it is important to bear in mind that intention does not necessarily lead to actual help in situations of peer violence.

Recent research on understanding the behaviour of peers who witness peer violence has focused on understanding the socio-cognitive and peer group processes of defending and bystanding (Rambaran et al. 2022), examining whether moral disengagement and perceptions of anti-bullying norms in the classroom are associated with defending and passive bystanding in school bullying (Thorenberg et al. 2022) or assessing the characteristics of school-based peer victimisation events that promote helping (Bellmore et al. 2021). Although there is a body of research showing that opportunities for prosocial involvement and recognition for prosocial involvement at school are protective factors in the school environment that promote positive youth development and prevent youth risk behaviours (e.g. Catalano et al. 2011; Catalano et al. 2021; Lam 2012; Mihić et al. 2022), there is no research on how these protective factors in the school environment influence students' reaction to peer violence.

This paper aims to explore the relationship between risk and protective factors in the school environment and peer violence to provide a basis for planning evidence-based prevention interventions to promote positive development or prevent risk behaviours in children and youth. It is important to note that this paper refers to peer violence, which is a broader type of risky behaviour in children and young people than bullying.

2. RESEARCH AIM

This study aims to determine: (1) whether there are differences in the witnessing of peer violence depending on the educational level and gender of the students, (2) whether there are differences in students' reactions to peer violence depending on educational level, gender and the perception of risk and protective factors in the school environment.

3. METHODS

3.1. *Participant sample*

This research was conducted in January 2023 as part of a project „Frontline Politeia – Take prevention science training to the substance use and crime prevention frontline (EU JUST programme)“. The purpose of the research was to investigate risk and protective factors in different environments from the perspective of children and youth as well as risk behaviours of children and youth in the cities of Samobor and Jastrebarsko to create action plans of the Prevention Council of the cities of Samobor and Jastrebarsko. The study aimed to cover the entire student population of the 5th to 8th grade of elementary school and the 1st to 4th grade of high school in the towns of Samobor and Jastrebarsko, Croatia. The entire student population in the two cities was included to ensure the variability of the studied risk and protective factors in different environments from the perspective of children and youth and their involvement in risk behaviours. The survey was conducted in 5 elementary schools and 3 high schools in the area of the city of Samobor and in 1 elementary school and 1 high school in the city of Jastrebarsko. Initially, data on the exact number of students enrolled in the 2022/2023 school year in which the study was conducted was collected in all elementary and high schools. In the 2022/2023 school year, a total of 3,696 students were enrolled in elementary and high schools in both cities (Samobor - 2,904 students; Jastrebarsko - 892 students). All students in the target sample were informed about the survey and invited to participate, with an individual appointment being made for each class. A total of 2,652 students took part in the survey (589 - city of Jastrebarsko; 2,063 - city of Samobor). This corresponds to 71,7% of the total student population in both cities (city of Samobor 66%, city of Jastrebarsko 73%). However, the sample consists of 2,188 students (6 students refused to participate in the study, 445 students did not complete the questionnaire, 13 students did not provide correct information about their socio-demographic characteristics when the questionnaire was checked (e.g. they stated that they were 59 years old) and these students were excluded from the final sample due to the questionable reliability of the data), which corresponds to 59.1% of the total population of students in the mentioned areas (city of Samobor 60%, city of Jastrebarsko 55%).

Table 1 gives an overview of the socio-demographic characteristics of the participants. The participants were between 10 and 19 years old ($M = 14,15$, $SD = 2,21$), and 48,1% were female students. In terms of education level, 66,3% of the students attended elementary school and 44,7% attended high school.

Table 1. Socio-demographic characteristics of participants

	Samobor	Jastrebarsko	Total (both cities)
N (%)	1697 (77,6)	491 (22,4)	2,188
Education level, n (%)			
Elementary school	962 (56,7)	248 (50,5)	1210 (55,3)
High-school	735 (43,3)	243 (49,5)	978 (44,7)
Grade, n (%)^a			
Fifth grade (elementary school)	202 (11,9)	59 (12,0)	261 (11,9)
Sixth grade (elementary school)	238 (14,0)	67 (13,7)	305 (14,0)
Seventh grade (elementary school)	298 (17,6)	63 (12,9)	361 (16,5)
Eight grade (elementary school)	224 (13,2)	58 (11,8)	282 (12,9)
First grade (high-school)	213 (12,6)	79 (16,1)	292 (13,4)
Second grade (high-school)	180 (10,6)	69 (14,1)	249 (11,4)
Third grade (high-school)	214 (12,6)	56 (11,4)	270 (12,4)
Fourth grade (high-school)	127 (7,5)	39 (8,0)	166 (7,6)
Gender, n (%)			
Female	834 (49,1)	219 (44,6)	1053 (48,1)
Male	798 (47,0)	256 (52,1)	1054 (48,2)
I don't want to declare	65 (3,8)	16 (3,3)	81 (3,7)
^a 2 (0,001%) participants were missing grade information			

3.2. Research process

Ethical approval for the study was obtained from the (it will be added after peer review). After approval was obtained, the head teachers of elementary and high schools in the cities of Samobor and Jastrebarsko were contacted. For students under the age of 14, written consent was obtained from their legal guardians/next of kin. According to the Ethical Codex for Research with Children (Ajduković and Kolesarić 2003), students who are 14 years old can give their consent independently, so written consent was not obtained from their legal guardians/next of kin. However, to ensure that parents/guardians were aware of the research in which their children were participating,

notices were sent to all parents/guardians, in cooperation with the school, informing them about the project in which the research was conducted, as well as the purpose, aim and method of conducting the research. In addition to parental consent, student consent was obtained at the beginning of the questionnaire. The students were informed about the aim of the study, the possibility of withdrawing from the study and the anonymity of the data. The study was conducted online until January 2023 using the Survey Monkey tool. The students completed the questionnaire independently in their computer rooms or on their mobile phones in collaboration with the school staff involved in the study. The students who agreed to take part in the study were given access to an online questionnaire, which took around 45 minutes to complete.

3.3. Research instruments

A modified CTC Youth Survey (Mihic et al. 2010) was used for the study. This survey assesses the risk/problem behaviour as well as the risk and protective factors for the development of behavioural problems in children and youth. Based on the results, it is possible to tailor prevention interventions to the needs of a specific community (Mihic et al. 2010). The CTC Youth Survey was previously used and validated in Croatia (Mihic et al. 2010; Mihic et al. 2013). The authors of the validated questionnaire in Croatia gave their consent to use it in this study. The survey assesses 18 risk and 9 protective factors, categorised into four areas: community, family, school, and peers/individuals. For the purposes of this study, only the risk factors – academic failure (two items; e.g. Are your school grades better than the grades of most students in your class?; $\alpha=.94$), low commitment to school (four items; e.g. Now, thinking back over the past year in school, how often did you: Enjoy being in school?; $\alpha=.62$), and protective factors – opportunities for prosocial involvement (four items; e.g. In my school, students have lots of chances to help decide things like class activities and rules; $\alpha=.62$), recognition for prosocial involvement (three items; e.g. My teacher(s) notices when I am doing a good job and let(s) me know about it; $\alpha=.73$) in the school environment were considered. The survey also assesses the prevalence of risk behaviours among young people, such as delinquency, substance use, violence and gambling. For this study, the data on peer violence was used.

- Peer violence (9 items; $\alpha=.78$). Students were asked to read the items and indicate on a 6-point scale (1 = never; 6 = every day) the extent to which they experience peer violence. For this study, the item about witnessing peer violence was used (How many times this school year have you seen one of your

classmates mistreat another student (e.g. physically assault them, making fun of them, excluding them...)?

- Reactions to peer violence (one item: How did you behave when you saw peer violence [e.g. physical attacks, mockery, exclusion...] at school?).

3.4. Data processing methods

The data was analysed using the predictive analysis software IBM SPSS (version 26,0). Descriptive statistics were used to determine sample characteristics, including frequencies, percentages, means and standard deviations. The following statistical methods and analyses were used to achieve the objectives of this study: Mann-Whitney U test with calculation of the difference effect and chi-square test. In addition to the chi-square test, Cramer's V was also used, which is a measure of the size of the influence of the chi-square test (Pallant 2016).

4. RESEARCH RESULTS

4.1. Witnessing peer violence

The Kolmogorov-Smirnov test shows that the dependent variable (witnessing peer violence) deviates significantly from the normal or Gaussian curve ($p < 0.05$). As it deviates from the normal distribution, non-parametric statistical methods were used. The Mann-Whitney test was carried out to determine whether there are differences between elementary and high school students regarding witnessing peer violence at school. The analysis of the results shows that there are statistically significant differences between elementary and high school students ($p < 0,01$) (Table 2). Compared to high school students, a higher percentage of elementary school students stated that they had witnessed peer violence. The effect size is small ($r = -0,06$). The data shows that 15,2% of elementary and 11,6% of high school students witness peer violence on a weekly basis. As the differences in educational level were confirmed, a further analysis was carried out separately for elementary and high school students in relation to gender. Results of the Mann-Whitney test show that there are no statistically significant differences between male and female elementary school students regarding witnessing peer violence at school ($p > 0,05$) and that there are statistically significant differences between male and female students in high school ($p < 0,01$) (Table 2).

Compared to male students, a higher percentage of high school female students reported having witnessed peer violence. The effect size is small ($r=-0,07$).

Table 2. Results of Mann-Whitney test – differences in students' statements about witnessing peer violence depending on educational level and gender

	WITNESSING PEER VIOLENCE	N	%						PR	MWU	p	r	
			never	once	several times	once a month	once a week	every day					
EDUCATION LEVEL	ELEMENTARY SCHOOL	1206	38,6	17,5	24,5	4,2	6,9	8,3	1128,02	545692,000	,002	0,06	
	HIGH SCHOOL	977	45,2	15,3	24,3	3,7	4,9	6,7	1047,54				
ELEMENTARY SCHOOL	GENDER	M	595	41,5	17,5	19,8	5,2	8,1	7,9	572,65	163415,000	,202	/
		F	573	36,1	17,8	28,4	3,0	5,9	8,7	596,81			
HIGH SCHOOL	GENDER	M	456	50,0	13,6	22,4	4,4	3,7	5,9	447,05	99660,000	,016	0,07
		F	478	41,0	17,6	25,1	2,9	6,3	7,1	487,01			

Legenda: PR = average rang; MWU = Mann-Whitneyjev U-test; p = significance; r = size effect

4.2. Students' reaction to peer violence

A chi-square test was carried out to determine whether there are differences between elementary and high school students in terms of their reaction to peer violence at school. The results show that there are statistically significant differences between elementary and high school students ($\chi^2=36,568$; $p < 0,01$) (Table 3). Compared to high school students, a higher percentage of elementary school students reported ignoring peer violence as if it was none of their business," joining the party", but also trying to do something to prevent peer violence. Cramer's V is 0,17 and considering the degree of freedom (df=3), it is a mean difference effect. As the differences in educational level were confirmed in relation to students' reactions to peer violence, further procedures were carried out separately for elementary and high school students.

Table 3. Results of chi-square test – differences in students' reaction to peer violence depending on educational level

STUDENTS' REACTION TO PEER VIOLENCE	ELEMENTARY SCHOOL				HIGH SCHOOL			
	GENDER				GENDER			
	MALE		FEMALE		MALE		FEMALE	
	n	%	n	%	n	%	n	%
I ignored it as if it was none of my business	114	60,3	75	39,7	110	65,1	59	34,9
I didn't do anything, I just watched	63	42,6	85	57,4	62	42,8	83	57,2
I joined in the party	30	96,8	1	3,2	11	84,6	2	15,4
I tried to do something to stop it	169	47,3	188	52,7	62	37,3	104	62,7

$\chi^2=38,506$; $df=3$; $p < 0,05$; Cramer's V = 0,16

$\chi^2=35,272$; $df=3$; $p < 0,01$; Cramer's V = 0,18

The chi-square test carried out shows that there are statistically significant differences between the genders of elementary ($\chi^2=38,506$; $p < 0,05$) and high school students ($\chi^2=35,272$; $p < 0,01$) regarding their reaction to peer violence (Table 4). For both school types, the results show that male students are more likely to ignore peer violence and join in for fun than female students. On the other hand, female students are more likely to observe peer violence, but they are also more willing to take action to stop peer violence. Cramer's V is 0,16 elementary school students and 0,18 for high school students. If the degree of freedom ($df=3$) is considered, the difference effect is medium.

Table 4. Results of chi-square test – differences in students' reaction to peer violence depending on gender

STUDENTS' REACTION TO PEER VIOLENCE	ELEMENTARY SCHOOL				HIGH SCHOOL			
	GENDER				GENDER			
	MALE		FEMALE		MALE		FEMALE	
	n	%	n	%	n	%	n	%
I ignored it as if it was none of my business	114	60,3	75	39,7	110	65,1	59	34,9
I didn't do anything, I just watched	63	42,6	85	57,4	62	42,8	83	57,2
I joined in the party	30	96,8	1	3,2	11	84,6	2	15,4
I tried to do something to stop it	169	47,3	188	52,7	62	37,3	104	62,7

$\chi^2=38,506$; $df=3$; $p < 0,05$; Cramer's V = 0,16

$\chi^2=35,272$; $df=3$; $p < 0,01$; Cramer's V = 0,18

4.3. Protective factors in the school environment

Two protective factors, opportunities for prosocial involvement and recognition for prosocial involvement at school, were included in the analyses to determine whether there are differences in students' reactions to peer violence depending on perceived protective factors in the school environment.

The chi-square test carried out shows that there is a statistical difference in the reaction to peer violence in relation to the assessment of opportunities for prosocial involvement at school by elementary ($\chi^2= 20, 309$; $df=3$; $p < 0,01$) and high school students ($\chi^2= 18, 131$; $df=3$; $p < 0,01$) (Table 5). Overall, the results show that students who perceive more opportunities for prosocial involvement at school are more likely to try to act against peer violence. In contrast, those students who feel that they have fewer opportunities for prosocial involvement at school are more likely to have fun when they see peer violence. Elementary and high school students differ in who observes or ignores violence when they see it. High school students who believe that they have fewer opportunities for prosocial involvement at school tend to ignore violence as if it does not affect them and to observe violence. This result was not confirmed in the elementary school students. Analysing the results for the elementary school students shows that Cramer's V is 0,16 and 0,18 for the high school students. These are mean difference effects considering the degree of freedom ($df=3$).

Table 5. Results of chi-square test – differences in students' reaction to peer violence in relation to students' perceptions of opportunities for prosocial involvement at school

STUDENTS' REACTION TO PEER VIOLENCE	ELEMENTARY SCHOOL				HIGH SCHOOL			
	OPPORTUNITIES FOR PROSOCIAL INVOLVEMENT				OPPORTUNITIES FOR PROSOCIAL INVOLVEMENT			
	NO		YES		NO		YES	
	n	%	n	%	n	%	n	%
I ignored it as if it was none of my business	68	35,1	126	64,9	105	60,0	70	40,0
I didn't do anything, I just watched	58	38,9	91	61,1	88	57,9	64	42,1
I joined in the party	22	66,7	11	33,3	12	92,3	1	7,7
I tried to do something to stop it	108	29,6	257	70,4	76	43,9	97	56,1
$\chi^2=20, 309$; $df=3$; $p < 0, 01$; Cramer's V = 0,16					$\chi^2=18,131$; $df=3$; $p < 0, 01$; Cramer's V = 0,18			

Regarding the recognition of prosocial involvement at school, the analysis showed that there are statistically significant differences in the reaction to peer violence depending on how students perceive the presence of this protective factor at school (elementary school students $\chi^2= 28, 981$; $df=3$; $p < 0,05$ high school students $\chi^2= 23, 200$; $df=3$; $p < 0,05$, Table 6). The results show that elementary and high school students who experience more recognition for prosocial involvement at school are more likely to try to stop peer violence while it is occurring. The perception of this protective factor in elementary school students does not differ in their passive reaction to

peer violence. However, high school students who experience more recognition for prosocial involvement at school tend to react passively (ignoring) or negatively actively to peer violence (involvement in violence). Cramer's V is 0,19 for elementary school students and 0,21 for high school students, representing medium difference effects (df=3).

Table 6. Results of chi-square test – differences in students' reaction to peer violence depending on students' perceptions of recognition for prosocial involvement at school

ELEMENTARY SCHOOL STUDENTS' REACTION TO PEER VIOLENCE	RECOGNITION FOR PROSOCIAL INVOLVEMENT				HIGH SCHOOL RECOGNITION FOR PROSOCIAL INVOLVEMENT			
	NO		YES		NO		YES	
	n	%	n	%	n	%	n	%
	I ignored it as if it was none of my business	63	32,5	131	67,5	89	50,9	86
I didn't do anything, I just watched	73	48,3	78	51,7	98	64,1	55	35,9
I joined in the party	19	57,6	14	42,4	12	85,7	2	14,3
I tried to do something to stop it	99	27,4	262	72,6	72	41,4	102	58,6
$\chi^2=29, 981; df=3; p < 0,05; \text{Cramer's } V = 0,19$					$\chi^2=23, 200; df=3; p < 0,05; \text{Cramer's } V = 0,21$			

4.4. Risk factors in school environment

The analyses included two factors, academic failure and low commitment to school, to determine whether there are differences in students' reactions to peer violence depending on risk factors in the school environment.

Analysing the results for elementary school students shows that there are statistically significant differences in the reaction to peer violence regarding their experience of academic failure ($\chi^2= 18, 748; df=3; p < 0,05$) (Table 7). The results show that students who report having experienced academic failure are more likely to report having fun when they see peer violence. In other words, not having experienced academic failure supports students in actively trying to prevent peer violence. Cramer's V is 0,19, which is a medium difference effect given the degree of freedom (df=3).

There were no statistically significant differences in the reaction to peer violence among high school students rating whether or not they experience academic failure ($\chi^2= 1, 223; df=3; p > 0,05$) (Table 7).

Table 7. Results of chi-square test – differences in students' reaction to peer violence depending on students' perception to academic failure

ELEMENTARY SCHOOL	HIGH SCHOOL							
	ACADEMIC FAILURE				ACADEMIC FAILURE			
	NO		YES		NO		YES	
	n	%	n	%	n	%	n	%
I ignored it as if it was none of my business	118	60,8	76	39,2	97	55,7	77	44,3
I didn't do anything, I just watched	97	63,8	55	36,2	76	50,0	76	50,0
I joined in the party	9	27,3	24	72,7	8	57,1	6	42,9
I tried to do something to stop it	239	65,1	128	34,9	94	54,3	79	45,7

$\chi^2=18, 748; df=3; p < 0, 05; \text{Cramer's } V = 0,19$ $\chi^2=1, 233; df=3; p > 0, 05; \text{Cramer's } V = 0,04$

Concerning the risk factor of low commitment to school, the results showed that there are no statistically significant differences in the reaction to peer violence between students who rate a high or low level of commitment to the school environment (elementary school students $\chi^2= 3, 131; df=3; p > 0,05$, high school students $\chi^2= 5, 333; df=3; p > 0,05$, Table 8).

Table 8. Results of chi-square test – differences in students' reaction to peer violence depending on students' perception of low commitment to school

ELEMENTARY SCHOOL	HIGH SCHOOL							
	LOW COMMITMENT TO SCHOOL				LOW COMMITMENT TO SCHOOL			
	NO		YES		NO		YES	
	n	%	n	%	n	%	n	%
I ignored it as if it was none of my business	113	68,5	52	31,5	119	75,8	38	24,2
I didn't do anything, I just watched	102	76,1	32	23,9	105	77,8	30	22,2
I joined in the party	14	63,6	8	36,4	5	62,5	3	37,5
I tried to do something to stop it	243	73,2	89	26,8	109	67,3	53	32,7

$\chi^2=3, 131; df=3; p > 0, 05; \text{Cramer's } V = 0,06$ $\chi^2=5, 333; df=3; p > 0, 05; \text{Cramer's } V = 0,10$

5. DISCUSSION

The first aim of this study was to determine whether there are differences in the witnessing of peer violence depending on the educational level and gender of the students. The result of the study showed that a higher percentage of elementary school students reported witnessing peer violence than high school students. The prevalence of peer violence is worrying, and the biggest problems occur in elementary school. Despite that fact, elementary school children at this age are beginning to develop the

ability to distinguish between intentional and unintentional harm (Buljan Flander et al. 2007). When children in elementary school begin to understand and recognise the difference between acceptable and unacceptable behaviour, they are more likely to report that they have witnessed some form of peer violence because they know how to recognise it. Studies that have found age differences in peer violence have shown that it occurs most frequently in children of higher elementary school age and in the lower grades of high school (Sušac et al. 2016; Velki and Kuterovac Jagodić 2014). From the above, it can be concluded that the relationship between peer violence and age follows an inverted U-curve (Olweus 1998; Velki and Kuterovac Jagodić 2014). Regarding the differences between male and female students in terms of witnessing peer violence at school, this study found that there are no gender differences among elementary school students, but there are among high school students. Female high school students state that they have witnessed violence from their peers to a greater extent. This can be explained by the fact that girls become more aware of discriminatory gender norms that characterise the dominance of men and the subordination of women, and in almost every culture, these norms can manifest themselves in the form of violence (United Nations Educational, Scientific and Cultural Organization 2017). When girls are more aware of various forms of peer violence, they are more likely than boys to report witnessing peer violence.

Regarding the response to peer violence, elementary school students were more likely than secondary school students to ignore peer violence as if it were none of their business, to amuse themselves, but also to try to do something to prevent peer violence. The data obtained is partly consistent with previous studies. For example, the study by Trach et al. (2010) shows that witnesses in early adolescence are more likely to engage in unhelpful behaviours, such as walking away from peer victimisation, but also less likely to engage in helpful behaviours (e.g. telling the bully to stop or comforting a victim). Research by Kodžopeljić et al. (2010) has also shown that high school students are more likely to respond to violence in a way that protects the victim compared to elementary school students. However, the study results are in contrast to the results of this study. A possible explanation for this result could be the way the school responds to peer violence and the students' experiences with the peer violence reporting process. There is still a high level of tolerance towards violence in society and peer violence is often not responded to with the necessary seriousness. If high school students feel that the school minimizes the problem of peer violence (not responding appropriately), they may decide to take less action against it, i.e. their tolerance of peer violence may be greater. The data that high school students react

less in the way of “joining in” is not surprising, as research consistently shows that the prevalence of peer violence decreases with higher developmental age (e.g. González-Cabrera et al. 2022; Sušac et al. 2016; Velki and Kuterovac Jagodić 2014). This is also confirmed in this study, i.e. high school students report that they witness peer violence more rarely than elementary school students. In addition, better self-control and moral development develop at an older age, which studies associates with less risky behaviours in young people, including violence (e.g. Arsenio and Lemerise 2004; Pauwels et al. 2018; Vazsonyi et al. 2017).

In terms of gender differences in students' response to peer violence, it was found among elementary and high school students that boys tend to ignore peer violence as if it were none of their business and that they often “join in the party”. Girls' response action to peer violence, on the other hand, is usually to do nothing and just observe, but also to take certain actions to stop it. The results regarding girls' reactions to violence are contradictory. Other studies show that girls are more inclined to respond actively to peer violence, which is also confirmed by other studies (e.g. Felix and Green 2010; Gini et al. 2008; Rigby 2008; Stubbs-Richardson et al. 2018) and it can be explained by the fact that women generally have better adaptive skills and are better problem solvers than men, as they focus more on building and maintaining relationships (Guzmán et al. 2020). Furthermore, Gini et al. (2008) found that the most important predictors of active defensive behaviour were social self-efficacy and empathy, both of which were associated with the female gender. The finding that girls are more likely than boys to do nothing and just watch when it comes to peer violence should definitely be investigated in more detail in future studies.

Regarding the research question of whether there are differences in students' responses to peer violence depending on how they assess the risk and protective factors in the school environment, interesting data was obtained.

Regarding protective factors in the school environment, it was found that students who perceive more opportunities for prosocial involvement at school are more likely to try to do something about peer violence and that students who perceive fewer opportunities for prosocial involvement at school are more likely to have fun when they see peer violence. In terms of school type, high school students who believe they have fewer opportunities for prosocial involvement at school tend to ignore violence as if it does not affect them and to observe violence. Similar results were obtained about recognition for prosocial involvement at school. When looking at the entire sample, it was found that students who had more experience of having their prosocial involvement recognised at school were more likely to try to stop peer violence while

it was happening. This study also shows that high school students who experience more recognition for their prosocial involvement at school are more likely to react passively (ignoring) or negatively actively to peer violence (participating in violence). This is an unexpected result and needs to be investigated further in future studies. Nevertheless, it can be concluded from these results that it is worth investing in strengthening protective factors in schools, in opportunities for prosocial involvement, and also in the recognition of students' prosocial behaviour. Numerous studies have found that prosocial behaviour acts as a protective factor for engaging in aggressive forms of behaviour, loneliness, and victimization by peers (Feritas et al. 2021; Griese and Buhs 2013; Jung and Schröder-Abé 2019; Belošević et al. 2021). When examining risk factors, it was found that elementary school students who had not experienced academic failure were more likely to actively react to stop peer violence, while high school students did not differ in their reaction to peer violence, regardless of whether they had experienced academic failure or not. It is important to emphasise that previous studies have found that academic failure is a risk factor for peer violence (Herrenkohl et al. 2000; Savage et al. 2017; Strøm et al. 2013), and Vidourek and Kinga (2019) concluded in their study that students who receive lower grades are significantly more likely to report being victimised by peers than students who receive higher grades. Interestingly, high or low levels of commitment to the school were not found to be significant for students' reactions to peer violence, regardless of whether they were elementary or high school students. The study conducted by Mihić et al. (2022) on a sample of high school students showed that school commitment was significantly negatively associated with gambling, substance use, and violence in both males and females.

The finding that, in this sample, the level of school commitment has no influence on the students' reactions to peer violence should be investigated further. One of the possible explanations could be that other factors such as the school climate or the level of tolerance of peer violence at school have a greater influence on students' reactions to peer violence and thus "neutralise" the influence of school commitment influence on students' behaviour.

Comprehensive studies on risk and protective factors and their relationship to risk behaviour in children and youth are valuable, as it is emphasised that all prevention efforts should eliminate or reduce the risk factors and strengthen the protective factors to which children and adolescents are exposed (WHO 2015).

6. LIMITATIONS

This study has certain limitations. The first limitation is that the students' self-assessment was used as the only source of information for measurement. Not all students are willing to report their experiences, even in confidential and anonymous research studies. Furthermore, data derived from individuals' memories of the past are inherently unreliable as they tend to misrepresent or distort facts from a previous period (Hinduja and Patchin 2017). This study attempted to avoid this danger by asking students to report only on their experiences during the current school year. Secondly, conducting the survey online has certain limitations (reduction in the number of participants, whether they have understood all the instructions and information well, handling of the online tool, internet connection failure...). In this research, efforts were made to avoid the above risks by conducting the research under the guidance of school staff who gave clear instructions to the participants at the research's beginning and ensured the data's confidentiality. Efforts were also made to minimise these limitations by organising the time for completing the survey at the class level at the same time. Students could only access the questionnaire once, but they could return to the previous question at any time during the completion of the survey and change the answer previously given. Thirdly, the study was conducted in two small towns, so the results cannot be generalised to the entire student population. Future studies should include a representative sample at the state level so that the conclusions can be generalised to the population of primary and high school students. It is also necessary to mention the limitations associated with the research instrument used. The CTC Youth Survey only analyses 4 factors from the school environment. In future studies, it would certainly be worthwhile to analyse other important elements of the school environment, such as school climate, the application of school policies and preventive interventions.

7. CONCLUSION

From the perspective of ecological systems theory, the environment in which children and youth grow up has a major influence on socialisation processes and developmental outcomes. It influences the formation of attitudes and determines behavioural norms. As an important socialisation factor, school should be a place where children and youth can safely learn and experience prosocial norms, where they learn to cope with differences, build and maintain relationships with their peers and deal with peer

pressure. It should be a safe environment for academic, but also social-emotional learning. Unfortunately, for many children and youth, the experience of schooling isn't pleasant or even safe. The data shows that quite a large proportion of students experienced peer violence, and even more of them witnessed peer violence. Both experiences can have serious consequences for further children and youth developmental paths. The data that speaks of a large percentage of students passively reacting to peer violence (ignoring it) should also be a cause for concern. The question arises as to whether we live in a society that has normalised aggressive behaviour and whether this normalisation is being transferred to the school environment. In this context, it would be important to further investigate the question of why children and young people do not actively respond to peer violence. Is it because of their previous experience that the school or important adult in their life does not respond in a timely and appropriate manner to instances of peer violence, or is it because they see violence as an accepted form of behaviour in the society in which they live?

The responsibility for creating a safe school environment lies with adults, as they have a duty to protect and socialise children and young people throughout their development. The way in which adults create the environment in which children and young people have their first life experiences and in which they begin to learn and shape their behaviour will largely determine their developmental trajectory. Understanding the factors in the school environment that promote or prevent peer violence is important for planning effective prevention strategies. These strategies must address both children and youth and the adults who create the environment with which children and youth constantly interact. Whether it is social-emotional skills learning programmes for children and youth, school policies or creating a positive school climate as a prevention strategy, it is important that any interventions implemented are effective and evidence-based. This paper has shown how known risk and protective factors in the school environment contribute to students' reaction to peer violence and can therefore guide the development of prevention strategies for schools. As peer violence is a complex problem and society is changing, further research is needed to respond comprehensively and effectively to this problem.

BIBLIOGRAPHY

1. Ajduković, Marina, Vladimir Kolesarić (2003), *Etički kodeks istraživanja s djecom*, Vijeće za djecu Vlade Republike Hrvatske, Državni zavod za zaštitu obitelji, materinstva i mladeži, Zagreb
2. Alcantara, Stefania C., Mònica González-Carrasco, Carme Montserrat, Ferran Viñas, Ferran Casas, Desirée P. Abreu (2017), "Peer Violence in the School Environment and Its Relationship with Subjective Well-Being and Perceived Social Support among Children and Adolescents in Northeastern Brazil", *Journal of Happiness Studies*, 18(5), 1507–1532.
3. Arsenio, William F., Elizabeth A. Lemerise (2004), "Aggression and Moral Development: Integrating Social Information Processing and Moral Domain Models", *Child Development*, 75(4), 987–1002.
4. Arthur, Michael W., J. David Hawkins, John A. Pollard, Richard F. Catalano, A. J. Baglioni JR. (2002), "Measuring Risk and Protective Factors for Use, Delinquency, and Other Adolescent Problem Behaviors: The Communities That Care Youth Survey", *Evaluation Review*, 26(6), 575–601.
5. Arthur, Michael W., John S. Briney, David J. Hawkins, Robert D. Abbott, Blair L. Brooke-Weiss, Richard F. Catalano (2007), "Measuring risk and protection in communities using the Communities That Care Youth Survey", *Evaluation and Program Planning*, 30(2), 197–211.
6. Bašić, Josipa, Martina Ferić (2004), "Djeca i mladi u riziku: rizična ponašanja", u: Josipa Bašić, Nivex Koller-Trbović, Slobodan Uzelac (ur.), *Poremećaji u ponašanju i rizična ponašanja: pristupi i pojmovna određenja*, Edukacijsko-rehabilitacijski fakultet Sveučilišta u Zagrebu, Zagreb, 57–72.
7. Bauman, Sheri, Jina Yoon, Charlotte Iurino, Liam Hackett (2020), "Experiences of Adolescent Witnesses to Peer Victimization: The Bystander Effect", *Journal of School Psychology*, 80, 1–14.
8. Bellmore, Amy, Ting-Lan Ma, Ji-In You, Maria Hughes (2012), "A Two-Method Investigation of Early Adolescents' Responses upon Witnessing Peer Victimization in School", *Journal of Adolescence*, 35(5), 1265–1276.
9. Belošević, Matea, Martina Ferić, Ivana Mitrić (2021), "Čimbenici otpornosti i iskustvo vršnjačkog nasilja", *Hrvatska revija za rehabilitacijska istraživanja*, 57(2), 20-46.
10. Berkowitz, Ruth (2014), "Student and Teacher Responses to Violence in School: The Divergent Views of Bullies, Victims, and Bully-Victims", *School*

Psychology International, 35(5), 485–503.

11. Bojčić, Karlo, Sanela Mandić Vidaković (2022), "Vršnjačko nasilje i učenička percepcija školske klime, *Školski vjesnik*, 71(1), 70-83.
12. Buljan Flander, Gordana, Zorica Durman Marijanović, Renata Ćorić Špoljar (2007), "Pojava nasilja među djecom s obzirom na spol, dob i prihvaćenost/odbačenost u školi", *Društvena istraživanja*, 16 (1-2(87-88)), 157-174.
13. Cahir Sandy, Liz Davies, Paul Deany, Cecily Tange, John Toumbourou, Joanne Williams, Raelene Rosicka (2010), *Introducing Communities That Care – Helping communities build better futures for children and young people*, Communities That Care Ltd., c/o The Centre for Adolescent Health, Victoria
14. Cambron, Christopher, Richard F. Catalano, J. David Hawkins (2019), "The social development model", In: David P. Farrington, Lila Kazemian, Alex R. Piquero (eds.), *The Oxford handbook of developmental and life-course criminology*, Oxford University Press, New York, NY, 224-247.
14. Capak, Krunoslav (2020), *Istraživanje o zdravstvenom ponašanju učenika – HBSC 2017/2018*, Hrvatski zavod za javno zdravstvo [Health Behaviour in School-aged Children study – HBSC 2017/2018. Croatian Institute of Public Health]. https://www.hzjz.hr/wpcontent/uploads/2020/05/HBSC_2018_HR.pdf
15. Catalano, Richard F., Kevin P. Haggerty, J. David Hawkins, Jenna Elgin (2011), "Prevention of Substance Use and Substance Use Disorder. Role of Risk and Protective Factors", In: Yifrah Kaminer, Ken C. Winters, eds., *Clinical Manual of Adolescent Substance Abuse Treatment*, 25-63, American Psychiatric Publishing Inc., Washington, DC, London, England
16. Catalano, Richard F., J. David Hawkins, Rick Kosterman, Jennifer A. Bailey, Sabrina Oesterle, Christopher Cambron, David P. Farrington (2021), "Applying the Social Development Model in Middle Childhood to Promote Healthy Development: Effects from Primary School through the 30s and across Generations", *Journal of Developmental and Life-Course Criminology*, 7(1), 66–86.
17. Corboz, Julianne, Osman Hemat, Wahid Siddiq, Rachel Jewkes (2018), "Children's peer violence perpetration and victimization: Prevalence and associated factors among school children in Afghanistan", *PloS One*, 13(2), e0192768.

18. Durlak, Joseph A. (1998), „Common risk and protective factors in successful prevention programs“, *American Journal of Orthopsychiatry*, 68(4), 512–520.
19. Felix, Erika D., Jennifer Greif Green (2010), "Popular Girls and Brawny Boys: The Role of Gender in Bullying and Victimization Experiences", In: Shane Jimerson, Susan M. Swearer, Dorothy L. Espelage (eds.), *Handbook of bullying in schools: An international perspective*, Routledge/Taylor & Francis Group, New York, 173–185.
20. Ferić, Martina (2018), "Pozitivan razvoj adolescenata u Hrvatskoj: rezultati istraživanja", Državni stručni skup "Vjetar u leđa", Primošten, Hrvatska
21. Ferrara, Pietro, Giulia Franceschini, Alberto Villani, Giovanni Corsello (2019), "Physical, psychological and social impact of school violence on children", *Italian Journal of Pediatrics*, 45(1), 1-4.
22. Freitas, Iara da S., Gabriela E. de Oliveira, Vanessa da S. Lima, Márcia Helena da S. Melo (2021), "Evidence-based interventions for promoting prosocial behavior in schools: Integrative review", *Psicologia - Teoria e Prática*, 23(3), 1-30.
23. Geremew, Alehegn Bishaw, Abebaw Addis Gelagay, Telake Azale Bisetegn, Yohannes Ayanaw Habitu, Solomon Mekonen Abebe, Eshetie Melese Birru, Temiro Azanaw Mengistu, Yilikal Tiruneh Ayele, Hedija Yenus Yeshita (2022), "Prevalence of violence and associated factors among youth in Northwest Ethiopia: Community-based cross-sectional study", *PLoS One*, 17(8), e0264687.
24. Gini, Gianluca, Paolo Albiero, Beatrice Benelli, Gianmarco Altoe (2008), "Determinants of Adolescents' Active Defending and Passive Bystanding Behavior in Bullying", *Journal of Adolescence*, 31(1), 93–105.
25. González-Cabrera, Joaquín, Irene Montiel, Juan Manuel Machimbarrena, Daniela Baridón-Chauvie, Raquel López-Carrasco, Jessica Ortega-Barón (2022), "Peer Victimization and Aggression Based on Adolescence Stages: An Exploratory Study", *Child Indicators Research*, 15(6), 2155–2170.
26. Griese, Emily R., Eric S. Buhs (2013), "Prosocial Behavior as a Protective Factor for Children's Peer Victimization", *Journal of Youth and Adolescence*, 43(7), 1052–1065.
27. Guzmán, Cristian, Miguel Posso, Jessy Barba (2020), "Peer violence in school, differences based on gender", *European Proceedings of Social and Behavioural Sciences*, 173-179.
28. Haggerty, Kevin P., Kristin J. McCowan (2018), "Using the social development strategy to unleash the power of prevention", *Journal of the Society for Social Work and Research*, 9(4), 741–763.

29. Halliday, Sarah, Tess Gregory, Amanda Taylor, Christianna Digenis, Deborah Turnbull (2021), "The impact of bullying victimization in early adolescence on subsequent psychosocial and academic outcomes across the adolescent period: A systematic review", *Journal of School Violence*, 20(3), 351–373.
30. Herrenkohl, Todd I., Eugene Maguin, Karl G. Hill, J. David Hawkins, Robert D. Abbott, Richards F. Catalano (2000), "Developmental risk factors for youth violence", *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine*, 26(3), 176–186.
31. Hinduja, Sameer, Justin W. Patchin (2017), "Cultivating youth resilience to prevent bullying and cyberbullying victimization", *Child Abuse & Neglect*, 73, 51-62.
32. Institute of Medicine (US) Committee on Prevention of Mental Disorders, Patricia J. Mrazek, Robert J. Haggerty (1994), *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research*, National Academies Press (US), Washington (DC)
33. Jadambaa, Amarzaya, Hannah J. Thomas, James G. Scott, Nicholas Graves, David Brain, Rosana Pacella (2019), "Prevalence of traditional bullying and cyberbullying among children and adolescents in Australia: A systematic review and meta-analysis", *The Australian and New Zealand Journal of Psychiatry*, 53(9),878–888.
34. Joo, Hyungyung, Isak Kim, So Rin Kim, Jolynn V. Carney, Seriasia J. Chatters. (2020), "Why Witnesses of Bullying Tell: Individual and Interpersonal Factors", *Children and Youth Services Review*, 116(105198), 105198.
35. Jung, Janis, Michela Schröder-Abé (2019), "Prosocial behavior as a protective factor against peers' acceptance of aggression in the development of aggressive behavior in childhood and adolescence", *Journal of Adolescence*, 74, 146–153.
36. Juvonen, Jaana, Sandra Graham (2014), "Bullying in Schools: The Power of Bullies and the Plight of Victims", *Annual Review of Psychology*, 65(1), 159–85.
37. Karmaliani, Rozina, Judith Mcfarlane, Rozina Somani, Hussain Maqbool Ahmed Khuwaja, Shireen Shehzad Bhamani, Tazeen Saeed Ali, Saleema Gulzar, Yasmeen Somani, Esnat D. Chirwa, Rachel Jewkes (2017), "Peer Violence Perpetration and Victimization: Prevalence, Associated Factors and Pathways among 1752 Sixth Grade Boys and Girls in Schools in Pakistan", *PloS One*, 12(8), e0180833.

38. Kodžopeljčić, Jasmina, Snežana Smederevac, Petar Čolović (2010), "Differences in the incidence and forms of violent behavior among students in primary and secondary schools", *Applied Psychology*, 3(4), 289-305.
39. Lam, Ching Man (2012), "Prosocial Involvement as a Positive Youth Development Construct: A Conceptual Review", *The Scientific World Journal*, 1–8.
40. Mihić, Josipa, Miranda Novak, Josipa Bašić (2010), "Communities that care: CTC needs assesment questionnaire for planning preventive interventions in children and young people", *Ljetopis socijalnog rada*, 17(3), 391-412.
41. Mihić, Josipa, Tea Musić, Josipa Bašić (2013), "Obiteljski rizični i zaštitni čimbenici kod mladih nekonzumenata i konzumenata sredstava ovisnosti", *Kriminologija i socijalna integracija*, 21(1), 49-63.
42. Mihić, Josipa, Martie Skinner, Miranda Novak, Martina Ferić, Valentina Kranželić (2022), "The importance of family and school protective factors in preventing the risk behaviors of youth", *International Journal of Environmental Research and Public Health*, 19(3), 1630.
43. Olweus, Dan (1998), *Nasilje među djecom u školi: Što znamo i što možemo učiniti*, Školska knjiga, Zagreb
44. Pallant, Julie (2016), *SPSS survival manual: A step by step guide to data analysis using SPSS*, Open University Press
45. Pauwels, Lieven J. R., Robert Svensson, Helmut Hirtenlehner (2018), "Testing Situational Action Theory: A Narrative Review of Studies Published between 2006 and 2015", *European Journal of Criminology*, 15(1), 32–55.
46. Rambaran, J. Ashwin, Tiziana Pozzoli, Gianluca Gini (2022), "Socio-Cognitive Processes and Peer-Network Influences in Defending and Bystanding", *Journal of Youth and Adolescence*, 51(11), 2077–2091.
47. Ratto, Jeffrey, Dawson Dobash, Soletchi Seya, BeugreTrika, Fathim Kama-gate, Laura Chiang (2023), "Prevalence of and factors associated with peer emotional and physical violence among youth ages 13–17 in Cote d'Ivoire", *Child Abuse & Neglect*, 145(106380), 106380.
48. Rigby, Ken (2008), *Children and Bullying: How Parents and Educators Can Reduce Bullying at School*, Blackwell Publishing, Victoria, Australia
49. Savage, Joanne, Christopher J. Ferguson, Lesli Flores (2017), "The effect of academic achievement on aggression and violent behavior: A meta-analysis", *Aggression and Violent Behavior*, 37, 91–101.
50. Silva, Georgia Rodrigues Reise, Maria Luiza Carvalho de Lima, Raquel Mo-ura Lins Acioli, Alice Kelly Barreira (2020), "Prevalence and Factors Asso-

- ciated with Bullying: Differences between the Roles of Bullies and Victims of Bullying", *Jornal de Pediatria*, 96(6), 693–701.
51. Strøm, Ida Frugård, Siri Thoresen, Tore Wentzel-Larsen, Grete Dyb (2013), "Violence, bullying and academic achievement: A study of 15-year-old adolescents and their school environment", *Child Abuse & Neglect*, 37(4), 243–251.
 52. Stubbs-Richardson, Megan, H. Colleen Sinclair, Rebecca M. Goldberg, Chelsea N. Ellithorpe, Suzanne C. Amadi (2018), "Reaching out versus lashing out: Examining gender differences in experiences with and responses to bullying in high school", *American Journal of Criminal Justice: AJCJ*, 43(1), 39–66.
 53. Sušac, Nika, Ivan Rimac, Marina Ajduković (2012), "Epidemiološko istraživanje nasilja među djecom", Rad prikazan u sklopu nacionalne konferencije »Raširenost nasilja nad djecom u obitelji i među vršnjacima«, Zagreb
 54. Sušac, Nika, Marina Ajduković, Ivan Rimac (2016), "Učestalost vršnjačkog nasilja s obzirom na obilježja adolescenata i doživljeno nasilje u obitelji", *Psihologijske teme*, 25(2), 197-221.
 55. Thornberg, Robert, Tiziana Pozzoli, Gianluca Gini (2022), "Defending or Remaining Passive as a Bystander of School Bullying in Sweden: The Role of Moral Disengagement and Antibullying Class Norms", *Journal of Interpersonal Violence*, 37(19–20), NP18666–89.
 56. Trach, Jessica, Shelly Hymel, Terry Waterhouse, Ken Neale (2010), "Bystander Responses to School Bullying: A Cross-Sectional Investigation of Grade and Sex Differences", *Canadian Journal of School Psychology*, 25(1), 114–130.
 57. UNICEF (2023), "UNICEF global databases based on Health Behaviour in School-aged Children Study (HBSC)", Global School-based Student Health Surveys (GSHS)
 58. United Nations Educational, Scientific and Cultural Organization (2017), *School Violence and Bullying: Global Status Report*, UNESCO and Institute of School Violence and Prevention, Ewha Womans University, France
 59. Vazsonyi, Alexander T., Jakub Mikuška, Erin L. Kelley (2017), "It's Time: A Meta-Analysis on the Self-Control-Deviance Link", *Journal of Criminal Justice*, 48, 48–63.
 60. Velki, Tena, Gordana Kuterovac Jagodić (2014), "Individualni i kontekstualni činitelji dječjega nasilničkoga ponašanja prema vršnjacima", *Ljetopis socijalnog rada*, 21(1), 33-64.

61. Vidourek, Rebecca A., Keith A. King (2019), "Risk factors for peer victimization among middle and high school students", *Children (Basel, Switzerland)*, 6(1), 11.
62. World Health Organization (2015), *Preventing youth violence: an overview of the evidence*, World Health Organization, Geneva, Switzerland; <https://www.who.int/publications/i/item/preventing-youth-violence-an-overview-of-the-evidence>

REAKCIJE UČENIKA NA VRŠNJAČKO NAŠILJE U ODNOSU NA NJIHOVU PERCEPCIJU RIZIČNIH I ZAŠTITNIH ČIMBENIKA U ŠKOLSKOM OKRUŽENJU

Sažetak:

Globalni podaci pokazuju da je vršnjačko nasilje raširen problem te da su njegove posljedice značajne za budući razvoj djece i mladih. Cilj ovog istraživanja je utvrditi: (1) postoje li razlike u svjedočenju vršnjačkog nasilja ovisno o razini obrazovanja i spolu učenika, (2) postoje li razlike u reakcijama učenika na vršnjačko nasilje ovisno o razini obrazovanja, spolu i percepciji rizičnih i zaštitnih čimbenika u školskom okruženju. Uzorak se sastojao od 2,188 učenika (u dobi od 10 do 19 godina; 48,1% učenica) na području gradova Jastrebarskog i Samobora, što odgovara 59,1% ukupne populacije učenika na tom području. Korištena je modificirana verzija CTC upitnika za mlade. Za postizanje ciljeva ovog istraživanja korištene su sljedeće statističke metode i analize: deskriptivna statistika, Mann-Whitneyjev U test, Hi-kvadrat test i Cramerov V. Rezultati istraživanja pokazali su da veći postotak osnovnoškolaca navodi da su svjedočili vršnjačkom nasilju od srednjoškolaca. Što se tiče reakcije na vršnjačko nasilje, osnovnoškolci su češće nego srednjoškolci ignorirali vršnjačko nasilje kao da ih se ne tiče, ili su se „priključili zabavi“, ali i češće pokušali učiniti nešto da zaustave vršnjačko nasilje. U odnosu na spolne razlike u reakcijama učenika na vršnjačko nasilje, kod učenika osnovnih i srednjih škola utvrđeno je da su dječaci skloniji ignorirati vršnjačko nasilje kao da ih se ne tiče te „priključiti se zabavi“. Nadalje, utvrđeno je da će osnovnoškolci i srednjoškolci koji u školi vide više mogućnosti i priznanja za prosocijalnu uključenost vjerojatnije nešto poduzeti kada svjedoče vršnjačkom nasilju. S druge strane, pokazalo se da će osnovnoškolci koji nisu doživjeli školski neuspjeh aktivnije reagirati na zaustavljanje vršnjačkog nasilja, dok se srednjoškolci ne razlikuju u reakcijama na vršnjačko nasilje, bez obzira jesu li doživjeli ili ne akademski neuspjeh. Rezultati ovog istraživanja mogli bi biti temelj za planiranje preventivnih intervencija utemeljenih na dokazima za promicanje pozitivnog razvoja i/ili prevenciju vršnjačkog nasilja kod djece i mladih.

Ključne riječi: vršnjačko nasilje; rizični i zaštitni čimbenici; reakcije učenika; školsko okruženje; prevencija

Adrese autorica
Authors' address

Katarina Serdar Čerpnjak
Sveučilište u Zagrebu
Edukacijsko-rehabilitacijski fakultet
katarina.serdar@erf.unizg.hr

Matea Belošević
Sveučilište u Zagrebu
Edukacijsko-rehabilitacijski fakultet
matea.belosevic@erf.unizg.hr

Martina Ferić
Sveučilište u Zagrebu
Edukacijsko-rehabilitacijski fakultet
martina.feric@erf.unizg.hr

