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PEER VIOLENCE AND STUDENT PERCEPTION OF SCHOOL CLIMATE¹

Abstract: *This paper analyses a survey on the experiences of students with peer violence and their perception of school climate. The research was conducted on a sample of 186 students of one primary school in Našice aged 11 to 15 years. The aim of this paper is to examine the relationship between experienced and committed peer violence at school with students' assessment of school climate and to determine whether there are statistically significant differences in experiencing and committing peer violence with regard to gender, age and academic achievement. A statistically significant difference was found according to gender and academic achievement in the frequency of victimization and peer violence in the past seven days. A significant, weak connection between the frequency of experienced and committed peer violence at school and the perception of a negative school climate was also established. The results suggest the importance of focusing prevention programs on various components of school climate from students, teachers, parents and interpersonal relationships between all school stakeholders to the organizational structure of the school.*

Key words: *violence, peers, primary school students, victimization*

INTRODUCTION

Violence, as a phenomenon characteristic of almost all societies, has been the subject of research by numerous scientists, and several theoretical approaches to the study of violence have emerged from these studies. All significant theoretical approaches to aggressive and violent behaviour describe aspects of the debate over whether aggressive behaviour is innate or learned (Livazović & Bojčić, 2020), and more recently responses on the origins of violence have been sought using integrative models of aggressive behaviour, including bioecological model (Bronfenbrenner & Morris, 2007). This model provides a holistic view of the problem of peer violence and victimization, since according to the model the development of violent behaviour of children can be explained by the influence of protective and risk factors found in a child, but also extend through several systems that surround a child and act directly and indirectly. The school a child attends is a microsystem, and the factors of the school microsystem interact with a child and have a direct impact on a child's development (Bronfenbrenner, 1979).

As is the case at other levels of the ecosystem, school factors are divided into risk factors and protective factors. Risk factors are personal or social characteristics that increase the likelihood of behavioural problems occurring (Lösel & Farrington, 2012). Protective factors are personal or social

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characteristics that mediate or slow down the effects of exposure to risk factors and reduce the likelihood of behavioural problems (Pollar et al., 1999, according to Bašić, 2009). The same variable can be both a risk and protective factor, depending on the sign of the observed variable. Student-teacher relationship for example – if positive, it may be a protective factor. If this relationship is negative, the student might be in a greater risk for the development of behavioural problems in school. Protective factors in the development of school violence include academic achievement, high motivation, positive attitude towards school, positive school climate, clear rules of conduct in school, positive relationship between students and teachers, support and supervision of teachers, and consistency in negatively supporting violence. Negative signs of these variables represent risk factors for the occurrence of violent behaviour in school. Risk factors include difficulties in school adjustment, lack of teacher support, low academic achievement, lack of school motivation, negative student-teacher relationship, and unclear and inconsistent enforcement of rules (Eisner, 2004; Herrenkohl et al., 2000; Jolliffe et al., 2016; Kim et al., 2016; Loeber et al., 2008; Lösel & Farrington, 2012; Sesar, 2011).

Speaking of a school climate, Freiberg and Stein (2005) state that a school climate represents the heart and soul of a school. School climate is the quality of the school that helps a sense of personal value, dignity and importance of each individual, and at the same time helps to create a sense of belonging to something outside of it (Freiberg & Stein, 2005). Hoy and Miskel (1991, according to Velki et al., 2014) state that school climate is a concept created by researching the organizational climate and efficiency of a school. They define school climate as a relatively permanent quality of school environment that influences the behaviour of its members and is based on a common perception of school behaviour, and it is influenced by formal and informal organization, the personality of the participants, and the management of the school. Dewitt and Slade (2014) state that school climate is based on the experiences of students, their parents, and school staff and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and the organizational structure of a school. Fraser (1994, according to Steffgen et al., 2013) divides the components of school climate into those related to interpersonal and social relationships (e.g., school affiliation, student participation); to those involving psychological processes (e.g., school attachment, fear of school); and to school-specific organizational components (e.g., school security, school management). According to Dewitt and Slade (2014), a supportive and positive school climate encourages the development and learning of students necessary for a productive contribution to society and a satisfying life in a democratic society. The same authors state that a positive school climate includes norms, values, and expectations that support people's sense of social, emotional, and physical security. People are included and respected in it. Students, their families, and teachers work together to develop, live, and contribute to a shared vision of the school. In it, teachers shape and develop attitudes that emphasize the benefits and pleasures gained by learning (Dewitt & Slade, 2014). School climate can foster resilience or become a risk factor in the lives of people who work and / or learn in school (Freiberg & Stein, 2005). School climate exists in every school. If planned with a positive intent, it can be supportive, protective, encouraging, and conducive to effective teaching and learning. On the other hand, if neglected, school climate can be unsafe, demotivating, and exclusive (Dewitt & Slade, 2014). Depending on which aspect is observed, school climate can be a risk or protective factor in the development of a child's violent behaviour.

The World Health Organization (Krug et al., 2002) defines violence as the intentional use of physical force and power via a threat or action against oneself, another person, or a group of people or an entire community, which may or may not result in injury, death, psychological consequences, underdevelopment or deprivation. Orpinas and Horne (2005) point out the difference between aggression and violence, where aggression does not exclude physical forms of violence, but generally refers to less extreme intentional behaviours that can cause damage to others. The definition of violence put forward by WHO falls under a narrower, minimalist conception of violence (Bufacchi, 2005, according to Ray, 2018). The “minimalists” view violence in terms of the use of physical force and physical consequences. The minimalist conception of violence has been criticized for failing to take into account the broader social contexts in which violence occurs, and consequences other than physical ones (especially psychological) and the possibility that violent outcomes are not intentional (Ray, 2018). Furthermore, it is pointed out that not all violence requires physical force, and an example of this is poisoning or pulling the trigger on a weapon. On the other hand, there are proponents of a comprehensive conception of violence that broadens the definition of violence to include all avoidable acts that hinder human realization, violate a person's integrity rights, and are often judged in terms of

outcome rather than intent (Ray, 2018). On the basis of that, Jackman (2002, according to Ray, 2018) proposes a generic definition according to which violence can be defined as actions that inflict, threaten to inflict, or cause injury. Such actions may be physical, written or verbal, psychological, material or social. This paper will use a broader concept of violence, given that, in addition to physical, other manifestations of violence will be examined. Furthermore, in this paper, the term peer violence refers to any violent behaviour between peers. Thus, peer violence can be reactive, one-off and sporadic and can occur between two peers / students of equal power. In contrast, bullying, as a form of violence, is characterized with imbalance of power and repetition (Olweus, 1998).

With regard to the manifestations of violence, two classifications of violence are distinguished. The first classification distinguishes violent behaviour with regard to its manifestations, and the second classification distinguishes between direct and indirect violent behaviour (Kraljic Babić & Vejmelka, 2015).

Coloroso (2004) distinguishes between physical violent behaviour, verbal violent behaviour, and relational violent behaviour. Physical violent behaviour, as the most conspicuous form of violence, involves hitting, pushing, pulling, pinching, taking away, and destroying a child's clothing or property. Verbal violent behaviour is reflected in insults, using derogatory language, ridicule, belittling and threats. Relational violent behaviour refers to ignoring, gossiping, isolating, avoiding, and excluding.

Another classification approach is cited by Olweus (1998), who distinguishes between direct and indirect violent behaviour. Direct violent behaviour implies relatively open attacks on the victim, and Kraljic Babić and Vejmelka (2015) list mockery, humiliation, insults, beatings, pushing, pulling, etc. as examples. Indirect violent behaviour implies a less visible form of violence such as social isolation and deliberate exclusion from the group (Olweus, 1998).

Various researches in Croatia and around the world have dealt with the frequency and manifestations of peer violence at school. Beran (2006) cites the results of various international surveys showing that the percentage of students who have experienced peer violence ranges between 9% and 35%, with the largest number of surveys showing a rate of approximately 20%. Similar results were obtained in Croatia by Bašić et al. (2021) on a sample of 1,424 secondary and high school students. In their research, 20.4% of students have taken part in a fight in the course of school year, and 4.2% of students have been hurt, or had to ask for doctor's help for participating in a fight in the course of school year. Similar percentages were obtained in a study conducted by Čakić et al. (2013), according to which 92 (16.3%) of 567 surveyed students in the area of Split participated in some form of peer violence. The results of the research by Vlah and Perger (2014), on a sample of 147 primary school students from 4th to 8th grade in Lika-Senj County, showed that 17.7% of students committed peer violence against other students, and that 20.4% of students have systematically, repeatedly and often experienced peer violence by other students in the previous few months. Velki and Vrdoljak (2013) conducted a survey on a sample of 262 students from two primary schools in Slavonia, according to which 30.9% of students had been victims of peer violence. According to the same research, verbal violence is the most common form of violence at school (reported by 26.7% of students), followed by physical violence (reported by 24% of students). Reić Ercegovac (2016) conducted a survey on a sample of 400 primary school students from several counties of the Republic of Croatia. The results of the research indicate that between 40% and 80% of students (depending on the type of violence) have experienced some form of peer violence at least once. It should be noted that between 5% and 17% of students experience some form of peer violence almost every day. In this research, gossip was also the most common form of violence, while hair pulling is the least common. The results of research conducted by Livazović and Vranješ (2012) showed that respondents most often encounter violence within their class, with only 37% of fifth-graders and 24% of seventh-graders not being exposed to peer violence. Research by Puzić et al. (2011) was conducted on a sample of 370 eighth grade primary school students in Zagreb and also showed that gossip is the most common form of peer violence in school (69% of students agreed with this statement), followed by ridicule (54% of students agreed with that statement). When it comes to physical violence, 42% of students mostly or completely agreed with the statement that students in their school engage in physical conflicts. When it comes to differences in the perception of school climate, the results show that students from schools with less violence assess school climate more positively compared to students from schools where students experience violence more often (Puzić et al., 2011). In a study conducted by Velki and Vrdoljak (2013), school climate (along with gender, age, number of friends, and social status) proved to be a significant predictor for predicting peer violence. Similar

results were obtained by Barboza et al. (2009) whose research shows that peer violence is less common in classes in which teachers provide support to students, are interested in them, and treat them fairly. The same authors cite results that show a significant impact of a negative school climate on increasing peer violence at school. Research conducted by Amaral et al. (2019) also showed that student support (related to student's experience with teachers and other school professionals, and perceived as welcoming, inclined to help and respectful) was a negative predictor for reports of victimization. Similar results were obtained by Berkowitz et al. (2015), on a sample of 53,946 fifth- and eighth-grade students in public schools in Israel, indicating significant negative correlation between school violence and positive student-teacher relationship. In their meta-analysis on correlates between school climate and school violence, Steffgen et al. (2013) analysed 36 articles that were published between 1982 and 2008, with a total sample of 113,778 individuals and a mean age of 13.53. The meta-analysis showed a moderate negative relationship between students' perception of school climate and violence. Also, in all analysed articles there was a negative correlation (ranging from -.53 to -.02), indicating that increasing positive school climate was related to a decrease in school violence, and vice versa.

Regardless of the form, any violence can have serious physical, psychological and social consequences. Thus, Reić Ercegovac (2016) states that the most common consequences of peer violence are manifestations of internalized difficulties, such as depression, loneliness and low self-esteem, and long-term exposure to violence, i.e. abuse, can lead to suicide. In addition, violence results in sadness, fear, insecurity, minor and serious bodily injuries that can lead to disability, and the reputation gained by victims of violence, which makes them more attractive victims of violence compared to non-victimised children (Crick et al., 1999; Sindik & Veselinović, 2008; Žilić & Janković, 2016). The negative consequences of violent behaviour are borne not only by the victims, but also by the perpetrators. The negative consequences of violent behaviour for perpetrators are reflected in lower grades, rejection by peers, these students are among the first to initiate alcohol and drug consumption, are among the first to have sex, are at the highest risk of dropping out of school, and thus at risk of becoming long-term unemployed, commit crime and suffer mental illnesses (Berk, 2017; Boivin et al., 2005; Girard et al., 2018; Junger et al., 2010; Teymoori et al. 2018; Tremblay, 2010).

In order to prevent the consequences of violence, efforts to prevent peer violence should be focused on identifying risk and protective factors for such behaviour. Expert knowledge of the impact of these factors on the occurrence of violence can help direct social and pedagogical efforts in the development of prevention programs, which would be particularly focused on reducing the impact of risk factors and strengthening the impact of factors that protect children from violent behaviour and its personal, social and educational repercussions.

The aim of this paper is to examine the relationship between experienced and committed peer violence at school with students' assessment of school climate and to determine whether there are statistically significant differences in experiencing and committing peer violence with regard to gender, age and academic achievement.

The following hypotheses arose from the aim of the paper:

H1: There are significant differences in peer victimization in relation to gender, age, and academic achievement

H2: There are significant differences in the perpetration of peer violence in relation to gender, age, and academic achievement

H3: There is a significant correlation between the assessment of school climate and the frequency of peer victimization at school

H4: There is a significant correlation between the assessment of school climate and the frequency of peer violence perpetration at school

METHODOLOGY

Participants

An appropriate sample of a total of 186 students of one primary school in Našice at the age of 11 (N = 38; 20.4%), 12 (N = 55; 29.6%), 13 (N = 49, 26.3%), 14 (N = 38; 20.4%) and 15 (N = 5; 2.7%) participated in the research (M = 12.55; SD = 1.11). When it comes to gender, the sample was evenly distributed, with a slightly higher number of girls (N = 97; 52.2%) compared to boys (N = 80; 43%), while 9 students did not answer this question. The average academic achievement in the previous school year was 4.52 (SD = .71) for 185 students, with excellent results achieved by 114 (61.3%) students, very good results achieved by 58 (31.2%) students, good results achieved by 11 (5.9%), insufficient success was achieved by 2 (1.1%) students.

Instrument

An anonymous survey questionnaire containing a total of 35 questions was used to conduct the research. The first part of the questionnaire addressed questions regarding sociodemographic data: age, gender, education and employment status of parents, with whom they live, type of school, grade and academic achievement. The Aggression / Victimization Scale (2001, Orpinas & Frankowski, 2005) was used to examine students' experiences of peer violence. The answers to the questions were set on a scale from 0 to 6+, with each answer indicating the frequency of the listed behaviours in the previous 7 days. The first six questions referred to the frequency of victimization (i.e., How many times did a kid from your school push, shove, or hit you? How many times did a kid from your school call you a bad name?). The first six items were computed into a new composite variable named "Victimization", with a satisfactory Cronbach's alpha coefficient ($\alpha = .84$). The second six questions of The Aggression / Victimization Scale referred to the frequency of peer violence (i.e., How many times did you push, shove, or hit a kid from you school? How many times did you call a kid from your school a bad name?). The second six items were computed into a new composite variable named "Violence", with a satisfactory Cronbach's alpha coefficient ($\alpha = .74$). The Croatian school climate questionnaire for students (HUŠK-U; Velki et al., 2014) was used to measure the general quality of the school learning environment and the psychological atmosphere in the school. It consists of 15 items that relate to feelings of security and belonging to the school, the relationship between teachers and students, the atmosphere for learning and the connection of parents with the school and the involvement of parents in the school life of children (i.e., In my school, teachers respect students; I feel safe in school; I feel like I belong to the school I attend). The scale achieved satisfactory Cronbach's alpha coefficient ($\alpha = .90$). Students responded to the items by rounding off one of the five levels of the Likert scale, with 1 meaning "I completely agree" and 5 "I completely disagree". The total score was obtained based on the sum of the responses on all items and ranges from 15 to 75, with a higher score indicating a perception of a more negative school climate by students.

Procedure

Prior to data collection, the consent of the school and the parents of the students who participated in the research was obtained. In addition to the consent of the school and parents, the oral consent of the students was also required. The research was anonymous and voluntary. The research was conducted in one primary school in Našice at the beginning or end of the school day, in agreement with the school pedagogue. Data collected by the survey questionnaire were entered and processed using the computer program for statistical data processing SPSS, using the methods of descriptive and inferential statistics.

RESULTS AND DISCUSSION

Descriptive analysis found that teasing by other students was the most common form of victimization, which more than half of the students experienced at least once in the past 7 days (N =

108; 58.7%). In second place is insult, which was experienced at least once by 98 (54.1%) students. The least common form of victimization is slander. As much as 57 of students (37.8%) claim to have experienced some form of slander at least once in the past 7 days. Other data are shown in Table 1.

Table 1.

Descriptive analysis of victimization

Variable		Not once	Once	Twic e	Thre e times	Four times	Five time s	Six or more time s	Σ	<i>M</i>	<i>SD</i>
How many times has a student from your school teased you?	N	76	33	24	17	4	6	24	184	1.75	2.09
	%	41.3	17.9	13	9.2	2.2	3.3	13	100		
How many times has a student from your school pushed or punched you?	N	89	36	18	18	8	2	15	186	1.39	1.85
	%	47.8	19.4	9.7	9.7	4.3	1.1	8.1	100		
How many times has a student from your school insulted you?	N	83	26	18	19	8	6	21	181	1.70	2.09
	%	45.9	14.4	9.9	10.5	4.4	3.3	11.6	100		
How many times has a student from your school told you he/she was going to hit you?	N	120	19	11	6	13	3	12	184	1.08	1.84
	%	65.2	10.3	6	3.3	7.1	1.6	6.5	100		
How many times have other students intentionally excluded you from an activity?	N	120	31	12	6	4	3	9	185	.85	1.58
	%	64.9	16.8	6.5	3.2	2.2	1.6	4.9	100		

How many times has a student made up something about you so that no other students would associate with you?	N	128	24	11	6	5	3	8	185	.79	1.56
	%	69.2	13	5.9	3.2	2.7	1.6	4.3	100		

When it comes to committed violence, similar to victimization, according to the results of descriptive analysis of committed violence in the previous 7 days, the most common form is teasing, given that 100 students (53.8%) teased another student at least once. Slander proved to be the rarest form of violence, with 15 (8.2%) students making up something about another student at least once so that other students would not associate with him/her. Other data are shown in *Table 2*.

Previous research indicates that gossip is most common in schools, followed by ridicule (Pregrad, 2011, Puzić et al., 2011). The research by Velki et al. (2016), in which 496 fifth- to eighth-grade students from four primary schools participated, found the highest level of representation in verbal abuse. This form of violence is often equated as a joke by children, especially since no clear physical consequences are seen. Given that as children grow older, they develop verbal skills and use them in subtle forms of verbal aggression, it should come as no surprise that teasing and insults are the most common forms of violence.

Table 2

Descriptive analysis of committed violence

Variable		Not once	Once	Twice	Three times	Four times	Five times	Six or more times	Σ	<i>M</i>	<i>SD</i>
How many times have you teased another student?	N	86	49	30	10	2	1	8	186	1.08	1.45
	%	46.2	26.3	16.1	5.4	1.1	0.5	4.3	100		
How many times have you pushed or hit another student?	N	110	43	12	6	4	2	9	186	.89	1.54
	%	59.1	23.1	6.5	3.2	2.2	1.1	4.8	100		
How many times have you insulted	N	105	42	21	4	5	2	4	183	.82	1.31
	%	57.4	23	11.5	2.2	2.7	1.1	2.2	100		

another student?											
How many times have you told another student you were going to hit him/her?	N	135	20	14	7	3	0	5	184	.60	1.28
	%	73.4	10.9	7.6	3.8	1.6	0	2.7	100		
How many times have you intentionally excluded another student from an activity?	N	147	28	5	4	1	0	0	185	.29	.68
	%	79.5	15.1	2.7	2.2	0.5	0	0	100		
How many times have you made up something about another student so that the other students would not associate with him/her?	N	168	13	1	1	0	0	0	183	.10	.37
	%	91.8	7.1	0.5	0.5	0	0	0	100		

The first (H1) and second hypothesis (H2) of this study assumed the existence of statistically significant differences in the experience (victimization) and the act of violence with respect to gender, age and academic achievement of the study participants.

Prior to the t-test analysis for independent samples and the implementation of one-way analysis of variance, a composite synthesis of variables was performed resulting in three variables: victimization, violence, and school climate.

Table 3 shows the results of research that indicate significant gender differences in the frequency of victimization and violence in the previous seven days, with male students being significantly more likely to be victims ($p < .05$), but also perpetrators of violence ($p < .01$). The results of other research on gender differences in victimization and violence are ambiguous. As in this study, the results of a study conducted by Solberg and Olweus (2003) on a sample of 5,171 students aged 11 to 15 showed that male students are more likely to be victims of violence, but also more likely to be perpetrators of violence. The results of a research conducted by Šakić et al. (2002) indicated the same. Bašić et al. (2012) reported male students being significantly more likely to be perpetrators of violence. The results of a study conducted by Veenstra et al. (2005), on a sample of 1,065 students with an average age of 11 years, showed that boys are more likely to be perpetrators of violence, but that girls are more likely to be victims of violence. A study by Scheithauer et al. (2006), on a sample of 2,086 students aged 10 to 16, found that male students were generally more likely to be perpetrators of violence, while they found no gender differences in victimization. On the other hand, a study conducted by Felix and McMahan (2007), on a sample of 111 students aged 11 to 15, showed no significant gender differences

when it comes to victimization and violence. The absence of gender differences in the experience of violence is also indicated by the results of a research conducted by Vlah and Perger (2014).

Table 3

Experiencing and committing violence according to gender

Variable	Gender	N	M	SD	t
Victimization	M	74	9.29	9.13	2.59*
	F	94	5.96	7.06	
Violence	M	76	5.00	5.58	3.06**
	F	95	2.75	3.52	

Note: *p < .05; **p < .01; ***p < .001

When analysing a particular form of victimization, slander is the only form of victimization in which there were no significant gender differences. Girls were significantly more likely to be intentionally excluded from an activity ($p < .05$), while the remaining forms of victimization such as teasing ($p < .01$), pushing or hitting ($p < .01$), insults ($p < .05$) and threats of physical violence ($p < .001$) were experienced significantly more often by male students. When it comes to gender differences in certain forms of violence, male students were significantly more likely to tease ($p < .01$), push or hit ($p < .01$), insult ($p < .01$), and threaten others with physical violence ($p < .01$). No statistically significant gender differences were found when it came to slandering and intentionally excluding other students from an activity.

These results are partly consistent with the results of a study conducted by Karriker-Jaffe et al. (2008) on a sample of 5,151 students in the United States, according to which boys are significantly more likely to be physically violent than girls. However, unlike the above research, this research did not identify gender differences when it comes to relational violence – excluding students from the group, spreading false rumours and inciting quarrels among others. Research conducted by Scheithauer et al. (2006) also found that boys are more likely to use physical violence compared to girls. The results obtained by a research conducted by Vrselja et al. (2009), on a sample of 1,823 students from fifth to eighth grade from 50 primary schools, confirmed the same.

Gender differences in certain forms of violence can be explained by a greater propensity of boys towards forms of aggression that lead to pain and / or physical injury, while girls have a greater propensity towards aggression that lead to psychological and / or social harm (Eagly & Steffen, 1986). These tendencies may be the result of different gender socializations within a family, school, peer groups, and the media (Catalano & Hawkins, 1996). In other words, different gender roles and their associated social expectations can lead to a gender-based difference in forms of peer violence.

Prior to performing a one-way analysis of variance, the age variable was recoded and students were divided into 4 groups according to age (1 = 11 years, 2 = 12 years, 3 = 13 years, 4 = 14 and 15 years). One-way analysis of variance did not reveal the existence of significant age differences in the experience and perpetration of violence, and the results are presented in Table 4. These results are not consistent with the results of a research conducted by Reić Ercegovac et al. (2018), on a sample of 567 students from fourth to eighth grade of primary school, according to which older students experience violence more often than younger students. On the other hand, according to the results obtained by Vlah and Perger (2014), older students are more likely to commit violence, while younger students are more likely to experience it. Livazović and Vranješ (2012) reported the existence of age differences in the perpetration of violence, with the prevalence of violence being higher among older students. On the other hand, Bašić et al. (2021) reported the violence perpetration was more related to younger age.

Table 4

Experiencing and committing violence according to age

Variable	Age	N	M	SD	Min	Max	F
Victimization	11	36	5.36	7.72	0	36	1.51
	12	55	7.98	8.09	0	34	
	13	45	7.02	7.08	0	27	
	14 and 15	40	9.18	9.52	0	34	
	Σ	176	7.47	8.16	0	36	
Violence	11	37	2.92	4.65	0	26	2.79
	12	55	2.91	3.68	0	18	
	13	47	3.70	3.43	0	15	
	14 and 15	40	5.40	6.32	0	23	
	Σ	179	3.68	4.61	0	26	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

This study did not identify significant age differences in terms of individual forms of victimization. When it comes to age differences in certain forms of peer violence, one-way analysis of variance $F(3,179) = 5.57$, $p < .01$ found that students aged 14 and 15 ($M = 1.29$) threatened others with physical violence significantly more often compared to students aged 11 ($M = .32$), 12 ($M = .45$) and 13 ($M = .42$) years. The results of the research of Vrselja et al. (2009) showed that, regardless of gender, the incidence of carrying a cold weapon (a knife, brass knuckles, or a baton), hitting, or threatening a parent and teacher increases with age, while the incidence of other violent behaviours varies systematically with age.

The higher propensity to threaten physical violence among older students is in line with the results of a research conducted by Livazović and Vranješ (2012). However, according to the same research, younger students are more prone to physical violence and provoking physical violence, while older students are more prone to gossiping and spreading lies about others, ridiculing and excluding other students from society (Livazović & Vranješ, 2012).

In order to perform the analysis using t-test with regard to academic achievement of the respondents, the variable academic achievement was recoded and students were classified into two groups, higher academic achievement (excellent) and lower academic achievement (very good, good, insufficient). Table 5 shows a statistically significant difference in the frequency of victimization and violence in the previous seven days with regard to academic achievement, with students with lower academic achievement being significantly more likely to be victims ($p < .01$), but also the perpetrators of violence ($p < .05$).

Regarding certain forms of victimization, statistically significant differences with regard to academic achievement were found in pushing or hitting ($p < .01$), insulting ($p < .01$) and threats of physical violence ($p < .01$). All three forms of victimization were more frequently experienced by students with lower academic achievement. In the analysis of individual forms of violence, statistically significant differences with regard to academic achievement were found in teasing ($p < .01$) pushing or hitting ($p < .05$) and insulting other students ($p < .01$). All three of these forms of violence were more often committed by students with lower academic achievement.

Table 5

Experiencing and committing violence according to academic achievement

Variable	Academic achievement	N	M	SD	t
Victimization	higher	112	6.16	6.97	-2.69**
	lower	64	9.81	9.51	
Violence	higher	112	3.05	4.24	-2.43*
	lower	67	4.76	5.02	

Note: *p < .05; **p < .01; ***p < .001

These results are consistent with the results of a meta-analysis conducted by de Ribera et al. (2019), which included 86 studies, and found that lower academic achievement, along with low school affiliation, correlated with violence. Numerous studies have confirmed a reciprocal association between poor academic achievement and behavioural disorders. According to Trout et al. (2003), one of the most common risk factors for young people is lower academic achievement. It is possible that the lower academic achievement of students, who experienced violence more often, is one of the consequences of victimization. Likewise, lower academic achievement can lead to victimization because peers may perceive a student with lower academic achievement as an unintelligent and incompetent person, as someone who will find it harder to defend against violence. When it comes to committing violence, it is possible that students who commit violence are sanctioned by teachers with an oral examination, which then leads to lower school performance. On the other hand, it is possible that students who fail to achieve the desired academic achievement release their frustrations through violent behaviour towards other students. Given the identified differences according to gender and academic achievement, hypotheses (H1 and H2) relating to the existence of statistically significant differences in the experience and perpetration of violence with regard to gender, age and academic achievement of students can be confirmed.

The third hypothesis (H3) of this research assumed the existence of a significant correlation between the assessment of school climate and the frequency of experienced peer violence at school, while the fourth hypothesis (H4) assumed the existence of a significant correlation between the assessment of school climate and the frequency of peer violence. The results of this study found a significant, weak correlation ($r = .21$; $p < .05$) between the frequency of experienced peer violence at school and the perception of a more negative school climate, and a significant, weak correlation ($r = .27$; $p < .01$) between the frequency of peer violence at school and the perception of a more negative school climate. The results are presented in *Table 6*.

Table 6*Correlation between the assessment of the school climate and the violence experienced and committed at school*

Variable	School climate		Victimization	Aggression
School climate	r	/	.21*	.27**
	N	157	151	153
Victimization	r	.21*	/	.67***
	N	151	177	172
Violence	r	.27**	.67***	/
	N	153	172	180

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

These results are consistent with the results of a meta-analysis conducted by Steffgen et al. (2013), which included 36 studies, and found that there is a weak to moderate negative association between violence and perceptions of a positive school climate. In addition, the results of this research are in line with the already conducted research by Puzić et al. (2011), according to which students from schools with less violence assess school climate more positively compared to students attending schools where they experience violence more often. Also, research conducted by Velki and Vrdoljak (2013) and Barboza et al. (2009) found that school climate is a significant predictor of peer violence. A study conducted by Reić Ercegovac et al. (2018) showed that students who assess the quality of interactions between students and the feeling of security at school with a lower grade are at a higher risk of experiencing violence. Vlah and Perger (2014) also concluded that peer violence is more often perpetrated by students who perceive interpersonal relationships between students at school as destructive, and is more often experienced by students who graded the school they attend with a higher grade in regard of the school being an unsafe place.

Since the research found a significant relationship between experienced and committed violence on the one hand, and the perception of school climate on the other hand, it is possible to accept the third and fourth hypotheses of this paper (H3 and H4).

Since school climate is defined as a lasting quality of the school environment that influences the behaviour of its members, preventive measures to prevent peer violence should be directed towards the individual (student), but also towards other components of school climate. Teachers also have an important role to play in preventing school violence, given the protective factors already mentioned, which include clear rules of school behaviour, a positive student-teacher relationship, teacher support and supervision, and consistency in negatively supporting violent behaviour. These claims are confirmed by the results of research conducted by Berkowitz (2014), according to which there is a high, significant correlation between the way teachers and students react to violence. The same research showed that students feel safer, report less violence at school, and do not avoid classes for fear of violence in schools where teachers negatively support violent behaviour.

In addition, the data from a research conducted by Eliot et al. (2010) should be taken into account, according to which children, when they enter adolescence, often refuse to seek help when they are victims of violence or when they feel that their sense of security is disturbed. Feelings of distrust negatively affect school climate and the overall atmosphere of the school. Therefore, even greater emphasis should be placed on the severity of the problem of peer violence and act according to the set rules. It is not enough just to make the rules, but it is also important to implement them consistently, that is the only way to make any school a safe place (Vlah & Perger, 2014).

The importance of the role of teachers in the prevention of violence and the formation of a positive perception of school climate is also mentioned by Stangl (2021) who emphasizes the teacher-student relationship as a major factor influencing the positive or negative perception of school climate.

Research has shown that negative attitudes of teachers have affected students' disinterest and lack of motivation for a particular subject. The perception of school climate by teachers leaves a great impact, not only on an individual, but on the whole class, and its impact on students is especially reflected in students' academic achievement. (Stangl, 2021).

School is an important microsystem in which children interact with teachers and peers to shape their self-image. All forms of peer violence have detrimental consequences for the physical and mental development of students and their education. That is why it is important to raise awareness about peer violence and implement a prevention program that will include as many participants as possible (Velki et al., 2016).

The present study has some limitations. The research was conducted on a modest, convenient sample of 186 students from one elementary school so the results cannot be generalized for all Croatian elementary school students. Also, the conducted research was designed as a cross-sectional study which makes it impossible to determine the cause-and-effect relationships between the observed variables.

CONCLUSION

The aim of this paper was to examine whether there is a connection between students' experiences of peer violence and their perception of school climate. In addition, the paper examines the existence of significant differences in victimization and peer violence at school with regard to gender, age and academic achievement. Despite the modest appropriate sample of only 186 students, the research found a weak, significant and positive connection between the experienced and committed violence and the perception of a negative school climate. In other words, students who were more often victims and / or perpetrators of violence have a more negative assessment of the school climate. The research also found significant differences with regard to gender and academic achievement in the frequency of experienced and committed violence, with young male students and students with lower academic achievement are more often committing and also experiencing violence. Given that the paper examined the relationship between peer violence and the perception of school climate, it is not possible to determine precisely whether a negative school climate causes more frequent peer violence behavior in school or does peer violence lead to a negative school climate. Future research should focus on determining in more detail the cause-and-effect relationship between these variables, as well as examining the impact and other characteristics of students such as social competence and sociometric status. In addition, in future research, it would be desirable to examine students' experiences related to electronic violence. Regardless of these limitations, it is necessary to emphasize the importance of prevention of peer violence in schools, where prevention programs should focus on different components of school climate: from students, teachers, parents and interpersonal relationships of all school stakeholders to the organizational structure of the school. Implementing a prevention program can help raise students' awareness of the violence around them, so that they can recognize it and understand how important their role is in reducing peer violence.

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