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CORELATION BETWEEN THE COMMITTED AND SUFFERED PEER VIOLENCE, AND THE PERCEIVED SCHOOL CLIMATE IN PRIMARY SCHOOL

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SUMMARY

The aim of this paper is to analyse the contribution of some elements of the school climate on the incidence and the experiences of bullying in primary school. Participants of the research were 147 pupils of fourth to eight primary school grades (46% female, average age of 12). Following their parents' informed consent, pupils filled in the integral surveys, which contained the Bully/Victim Questionnaire (Olweus, 1998), the Scale of Perceived Security in School (Buljan Flander and all., 2007) questionnaire, and the Scale of School Climate and Conflicts in School (Puzić and all., 2011). Descriptive, correlation and regression analyses were conducted. Among the surveyed students, 17.7% sometimes, often, or almost always committed bullying over other students. In the same sample, 20.4% of students systematically, repeatedly and regularly experienced bullying from other students in the few months prior to the implementation of the survey. Bullying is more often committed by boys, by older students, and by students who hold a destructive perception of interpersonal relationships between students in school. Bullying is more often experienced by younger students, and students who tend to perceive the school as an unsafe place. The authors suggest that the school, with the support of the local community, ought to initiate and implement the peer violence prevention programme in order to create constructive and pro-social relationships among students and to ensure a sense of security for all, especially for younger students.

Keywords: *bullying, peer violence, prevention, school, school climate, teachers*

INTRODUCTION

It can be said that peer violence has always been present in schools, but that, from a historical standpoint, the society's relationship with violence has changed. According to Černi Obrdalj, Beganlić and Šilić (2010), prior to modern scientific efforts in conceptualization of the terms, violence was considered an inseparable part of growing up, which is in stark opposition to the contemporary views of violence as undesirable. We start with the assumption that violence is present in schools today and that an adverse environment in the school may contribute to the appearance of violence among the pupils, and vice versa.

There are numerous definitions of **peer violence** (Olweus, 1998; Randall, 1997; Rigby, 1996; Baldry, 2003). According to Olweus (1998, in Pregrad et al. 2007, 12), the most commonly cited definition states that peer violence is a situation of incommensurate power in which a student is repeatedly and permanently exposed to negative actions on behalf of one or more other students. There are three relevant criteria in defining peer violence: 1) there is a negative action that includes intentional harm or injury to another, 2) the negative action is repeated and is permanent (this excludes the occasional, meaningless negative actions of equal show of strength among students), and 3) there is an asymmetry of power/strength between the student who is a victim of violence and the student who is the perpetrator of violence. The research in Scandinavian countries finds that 5,6-7% of pupils commit that type of violence (Olweus, 1993, in Dedaj, 2012; Olweus, 1998), while the same is true for 8% of the students in the United States (Bradshaw et al. 2007, in Dedaj, 2012), and 12% of British students (Whitney and Smith, 1993, in Sutton and Smith, 1999). The research conducted by the Children's Polyclinic in Zagreb found that 16% of pupils behave in a violent manner towards their peers on a nearly everyday basis (Karlović, 2006). According to Velki and Vrdoljak (2013), the self-reported level of violence in the two surveyed schools in Osijek is 3,1% for perpetrators of violence, and 13,7% of those who are at the same time perpetrators and victims of violence, making for 17% total. The results of the Olweus scale for determining peer violence in a representative sample of primary and secondary school students in Croatia, as used by Pregrad et al. (2007), state that there are 12% of those who commit violence (defined as those who behave in that manner 2-3 times a month) in the school-age population in Croatia.

The same scale used in Scandinavian countries found that 7,6-9% of pupils were victims of peer violence (Olweus, 1993, in Dedaj 2012; Olweus 1998). The research conducted in 33 European countries, and in Russia, Turkey, Israel, and the US, find that 13% of pupils are victims of peer violence (Popadić, 2009). According to the estimate by Bradshaw et al. (2007, in Dedaj, 2012), 23% of students in the US have been exposed to peer violence, while 27% of students in British

schools have been exposed to peer violence, either "regularly", or "often" (Whitney and Smith, 1993, in Sutton and Smith, 1999).

According to Pregrad et al. (2007), 10% of the students were the victims of violence, i.e. were suffering it 2-3 times a month. Velki and Vrdoljak's recent (2013) survey found that nearly 31% of pupils self-reported peer violence.

In Rijeka, Žakula-Desnica (2011) used a measurement instrument that corresponds to the Olweus definition of peer violence, and is similar in terms of content to the original scale on a sample of 1694 seventh and eighth grade students in all of the city's schools, and found that "37,1% [of them] suffered violence at least once a day, every day, during the testing period, with 12,4% of the children being passive victims, and 12,3% provoking/aggressive victims. A total of 24,7% have been violent towards other children on a daily basis, and 12,4% among them did not experience harassment themselves" (Žakula-Desnica, 2011,114).

Given that the above discussed, and further used definition talks about the permanency of the actions and an incongruence of power in the socio-ecological space of the school, it is interesting to observe the patterns of behaviour in peer violence in relation to the general climate or atmosphere of the school. This paper is aimed at the concept of psychosocial climate in the school environment, and will continue to refer to it as the school climate. This term denotes a particular educational environment and represents a set of internal characteristics that differentiate the schools and affect the behaviours of all those working/studying in the school (Domović, 2003). According to Smontara (2008), the school climate is made up of the organization of the educational work, the potential for taking part in various activities, the clarity and consistent implementation of rules on discipline, cohesion among the teachers, clear goals of instruction, and the teachers' experiences and expectations. As noted by Relja (2006), the school climate may be observed on several levels: 1) ecology of the school environment and its organizational characteristics, 2) high level of quality of the curriculum which is also adapted to the students, and 3) the quality of interpersonal relationships, the last but also the most important characteristic of the school climate. The importance of interpersonal relations in the school climate is also pointed out by Khoury-Kassabri, Benbenishty, and Astor (2005), who state that supportive and positive relationships between the teachers and the students increase the relevance of the school from the students' point of view, and increase their attachment to the school. The teacher has the most important role in fulfilling and maintaining a high quality of interpersonal relationships with the students. Those students who think of teachers as friendly and caring individuals that treat them with respect more commonly develop a sense of belonging to the school, and are also strengthening the positive relationships with the other students (Eccles and Roeser, 2006, in Smontara, 2008). A good quality of relationships among the students is also marked by mutual respect, assistance, friendliness, listening

during the conversations, and respecting the opinions of other students. It can be said that the precondition of high-quality relationships in a schools are equally grounded in the student-teacher relationships as they are in the student-student relationships.

When applying the *Playground and Lunch-room Climate Questionnaire* (PLCQ), Leff et al. (2003) found that the supervision of children, the ways in which the grown-ups structure activities during lunch and play breaks, as well as the patterns of mutual cooperation among adults, may all have an impact on the children's' social behaviour in school. This finding is also supported by the work that found that those primary schools where pupils perceive more support are also those where children are more prone to seeking protection when suffering from peer violence (Eliot et al., 2010). For these reasons, the authors suggest that the school staff's efforts at ensuring a supportive environment may be a potentially valuable strategy for the prevention of peer violence. In line with this, Cohen and Freiberg (2013), referring to a series of recent research, offer a summary of useful strategies for the prevention of peer violence by means of establishment of a positive school climate. The National School Climate Centre (according to Cohen and Freiberg), state in their publication that, alongside the basic elements such as efficient and effective educational management, the engagement of the entire community, continuous evaluation, policies, law, rules, and support, there are three further key aspects in the construction and maintenance of high-quality prevention in everyday practice:

- 1) Creation and maintenance of a school climate that includes explicit and implicit norms, measurement methods, behaviour codes, goals, values, interpersonal relation patterns, classes and teaching, management style, and individual professional interventions. These are issues that ought to concern the principals, and the entire school staff.
- 2) A high-quality integration of the topics of bully - victim - witness into the curriculum, which is to lead to an enhancement of the dynamics of pro-social education.
- 3) Focus on individual interventions which support the partnership that improves the teacher - parent relationship, and the mental health of the student who is at risk of committing peer violence.

Prevention is a series of procedures that lower the probability of an event taking place. It can be universal, selective, or indicated (Gordon 1983, 1987, Kellam and Rebok, 1992, all in Bašić, 2009). In this paper we are considering prevention at an universal level, at which efforts are made to improve the quality of the psychosocial conditions of education for all the children involved. The processes of ensuring an adequate school climate are at the level of universal prevention of peer violence. We may assume that, along with the interpersonal relations in the school, the school rules are relevant predictors of prevention of peer violence among the students (Puzić, Baranović, and

Doolan, 2011). It is known that timely and consensual defining and implementation of rules, along with the clear expectations and set consequences of one's own and others' behaviour in schools, gives the students a sense of safety and reliability. In this paper, based on (Puzić, Baranović, and Doolan, 2011), we start with the assumption that the measure of promotion of a positive school climate would contribute to the prevention of peer violence in school. Similarly, Swearer and Espelage (2004) point out that, alongside the multiple mutually linked areas of preventive factors (individual characteristics, classroom climate, specialized programmes, and similar), particular attention ought to be given to the socio-ecological space of professional interventions and to an improvement in the school climate.

According to prior research on the school climate in Croatia, more than a simple majority of students has a positive perception of the quality of their relationship with teachers, and of their own feeling of safety in and around the school. However, a portion of the students express a somewhat more negative perception of the quality of interpersonal relationships with the teachers and display feelings of a lack of safety in school, which indicates that there is a perception of an unfavourable school climate for at least some of the surveyed students (Knežević and Baradić, 2004; Miharija and Kuridža, 2010; Vojnović and Mikić, 2010; Kudek Mirošević, 2013). Puzić, Baranović, and Doolan (2011) used the *School Climate and School Conflict Scale* to test the students, teachers and principals' perceptions of the school climate characteristics, and of the peer violence among the students. They found a "co-existence of conflictual and cooperative aspects of the school environment" (Puzić, Baranović, and Doolan 2011, 354). Buljan – Flander, Durman Marjanović and Čorić Špoljar (2007) found that the students' sense of acceptance/rejection in school is related to the measured perception of the experience and act of peer violence. The study was conducted by means of the *School Violence Questionnaire* (Upitnik školskog nasilja, UŠN-2003), on a sample of 4904 pupils of the fourth to eighth grades in 25 schools across 13 Croatian towns. Among the conclusions of the project was the recommendation for inclusion of prevention and intervention programmes in Croatian schools. In the Croatian cultural context, the number of friends, social status, and the school climate, have all proven to be significant predictors of the incidence of peer violence (Velki and Vrdoljak, 2013).

An analysis of the results of prior research (Holtappels and Meier, 2000; Lindstrom Johnson, 2009; Leff et al. 2003; Swearer and Espelage, 2004; Elliot et al. 2010; Cornell, 2011; Cohen and Freiberg, 2013; Velki and Vrdoljak, 2013), lead us to formulate the research question concerning the relation between the school climate and particular patterns of peer violence. The aim of this paper is to analyse the contribution of particular characteristics of the school climate on the engagement in, and

perceptions of peer violence in primary school. The results may be applied in the area of potential implementation of peer violence prevention programmes in schools.

RESEARCH PROBLEMS AND HYPOTHESES

We are addressing three problems in this paper, the first of which are exploratory and descriptive, while the remaining two are aimed at defining the relationships between phenomena. In this paper we aim to:

- 1) determine the frequency with which peer violence is committed and the frequency with which the victims perceive this violence, all within the school that is being researched.
- 2) determine the relationship between the act and perception of peer violence, and the school climate; thus our first hypothesis is that there is an association between the acts of and exposure to peer violence, and the school climate, i.e. as the school climate becomes more unfavourable, the frequency of acts of and exposure to peer violence will increase as well. In other words, as the self-reported peer violence increases (both as reported acts, and reported experiences), the students' perception of the school climate will be more unfavourable.
- 3) determine whether any of the elements of the school climate are suitable predictors of an increase in peer violence, as reported by the students, both as perpetration of violence and the suffering of violence. The hypothesis is thus that the school climate is a significant predictor of self-reported acts of and exposure to violence. It is expected that an unfavourable school climate will bring about more of self-reported peer violence, both as acts of violence and the reported exposure to violence. The purpose of realization of this specific goal is an empirical insight into the justification of investment into improvements of the school climate which seek to prevent peer violence.

METHODS

Participants

The survey participants have been the pupils in the fourth to eighth grades of a primary school in the Lika-Senj County (we are omitting the name of the school here for reasons of research discretion), with two classes selected randomly in each of the generations. There were 147 participants, 80 boys (54,4%), and 67 girls (45,6%), ages 9 through 14 ($M=11,9$, $SD=1,56$). There are no peer violence prevention programs being implemented in the school where the survey was implemented. For more clarity in the interpretation of results, it should be mentioned that the school is in a smaller town, with a population of about 7000, where most people know each other,

the social ties are very strong, but the social context is, in our assessment, patriarchal and traditional.

Measurement instruments

Peer violence

The Bully/Victim Questionnaire (Olweus, 1998) was used in this project, with just two of the questions used in this paper - the one about committed violence and the one about suffered violence. The authorisation to utilize the questionnaire was given by the UNICEF office in Croatia, which translated and adapted the original questionnaire for the Croatian circumstances (Pregrad et al., 2007). These questions are two univariate ordinal variables, for which each of the pupils provided a report on his/her own experience of committing peer violence, and of suffering violence.

School climate

The school climate variables have been measured using the integrated version of two scales: 9 questions from the *School Violence Questionnaire (Upitnik školskog nasilja UŠN-2003)* (Buljan Flander, Karlović, and Štimac, 2003, in Buljan–Flander, Durman Marjanović, and Ćorić Špoljar, 2007; Buljan-Flander and Karlović, 2006), and 18 from the *School Climate and School Conflicts Scale* (Puzić et al., 2011). We have named the thus created integrated version of the questionnaire the **School Climate Scale**.

We have used the *UŠN-2003* questions that refer to the pupils' sense of safety in particular places in the school (hallways or stairs, playground, classroom, restroom, gym or locker room, refectory, the path from home to school and vice versa). The three-level scale for answers gave the students the following options: *unsafe, neither safe nor unsafe, and safe*. The responses have been coded in the database in a manner that assigned higher values to the estimates of higher safety.

The *School Climate and School Conflicts Scale* contains questions/claims, 10 of which concern the relationships among the students, five are about the relationships between the teachers and students, while further three are about the issue of reporting conflicts, i.e. peer violence, to the teachers. The students were asked to express the degree of agreement with a particular claim on a five-point Likert scale: *I completely disagree (1), I partially disagree (2), I neither agree nor disagree (3), I partially agree (4), I completely agree (5)*. The scale authors report that the Cronbach's alpha coefficient of internal consistency of the scale varies from 0,69 to 0,85.

Table 1 displays the dimensions found by means of the exploratory/confirmatory principal components factor analysis, and by selection of three factors using the Scree test, and rotating them using the oblique oblimin rotation for the research area of school climate, as measured by the *School Climate Scale*. In this manner, the first phase of the analysis yielded three extracted factors, explaining 51% of the variance. All of the questions that were kept maintained the extraction communalities higher than 0,30. In the form matrix, the three resulting factors were observed as potential sub-scales, and their pertaining questions were submitted to the discrimination coefficient analysis in each sub-scale, with the results of the entire sub-scale. We used the criterion of maintaining those questions for which the discrimination coefficient was higher than 0,40. After the final selection of the questions, the repeated method using the Scree test yielded the three-factor interpretable set structure of 21 questions. The eigenvalues for the first several components were as follows: 4,90; 4,13; 3,20; 1,05; 0,10; 0,84. Post-rotation, the three significant factors explained 58% of the variance of the results of the kept questions, whose communalities were at least 0,35, and at most 0,83. Given the direction of the expressed attitudes, some of the questions needed to be recoded, which was aligned with the final labels of the questions in Table 1.

Table 1: Three dimensions of the school climate

The teachers' constructive and cooperative contribution to a supportive school climate (N= 6, $\alpha=0,87$;)	Pupils' feeling of safety (N=8; $\alpha=0,85$)	Destructive interpersonal relationships among the pupils (N=6; $\alpha=0,86$)
r	r	r
The teachers assist in resolving conflicts and disagreements among the students	On my way to school, I feel...	The students insult and make fun of each other.
The teachers treat students with respect and appreciation.	On my way home from school, I feel...	The pupils get into physical conflicts.
The teachers treat the pupils fairly.	When the teacher is away from the classroom, I feel...	The students gossip about one another.
In situations when the pupils report insults or violence, the teachers get involved in resolving the dispute.	In the gym or locker room, I feel...	The students exclude those who are different from the school activities and socializing.
The teachers pay attention to the students' opinions.	In the playground (during break), I feel...	The students do not listen to one another during class

		discussions.
The students are free to talk to a teacher when they need help or are in conflict/disagreement with a colleague. ,68	In the school hallways, and in the stairways, I feel... ,63	The students do not like being in school... ,56
	In the rest-rooms, I feel... ,62	
	In the school dining room/refectory, I feel... ,59	

r= correlation of the question with the factor; α = Cronbach's Alpha (reliability coefficient)

We named the first dimension the **teachers' constructive and cooperative contribution to a supportive school climate** because it describes the students' perception that the teachers' attitudes are acknowledging, respectful, and assistive to the pupils in situations of conflict. This confirms the previous finding of the scale authors' similarly defined dimension (Puzić et al., 2011). The name of the second dimension is **the pupils' feeling of safety** because it describes their answers concerning the feeling of safety at various locations in school, or en route from/to school. A similar theoretical dimension has already been described in existing work (Vojnović and Mikić, 2010; Černi Obrdalj, Beganlić, and Šilić, 2006; Knežević and Baradić, 2004). The third constitutive dimension is that of **destructive interpersonal relations among the students** because it is constructed from the questions in which the students describe the situations from their mutual social interactions which manifest both the passive and active aggression, conflict, and disagreement. Similar is known from previous work (Puzić, Baranović, and Doolan, 2011; Ristić Dedić et al., 2011). It is clear that all three sub-scales that the dimensions are derived from are of satisfactory internal reliability: the Alpha value for the first dimension is 0,87, while it is 0,85 for the second dimension, and 0,86 for the third.

The data gathering process

Upon acquiring all the necessary administrative approvals, the authors asked for and received the written informal consent of all the pupils' parents. The data gathering process took place for two weeks during March 2013. In order for precision and objectivity of the results to be assured, the paper's second author guided and instructed the pupils on how to fill in the questionnaires, utilizing a methodically devised and age-appropriate protocol. Before communicating the goal of the survey and explaining the instructions for filling in the questionnaire, the pupils were told that the data

acquired from them would be used for research only, that they remain anonymous, that the forms are not a test of their knowledge, and that there are no correct or incorrect answers.

Methods of data analysis

The first of our research problems was addressed by analysing the absolute and relative frequencies. The second problem, i.e. the first hypothesis was tested by means of Spearman correlations, while the third problem (second hypothesis) was addressed through two multiple hierarchical regressions.

RESULTS

Students' self-reports of peer violence in school

The students' self-reports of peer violence will be displayed by using the perceived frequency on particular categories of the two univariate variables of committing violence and suffering violence. The term peer violence was explained to the students using the scale author's definition. The brief explanation given to the students was that peer violence is a behaviour in which there is a negative act that assumes an intentional harm/injury towards the other person. The students were asked to reflect on their experiences of such violence, according to the instructions in the questionnaire.

Table 2: Frequencies of particular answers to the following question: "In the past several months, how many times have you taken part in a violent act towards other pupils in this school?"

Answer categories	f	%
Almost never	75	51,0
Rarely	46	31,3
Sometimes	15	10,2
Often	6	4,1
Nearly always	5	3,4
Total:	147	100,00

As seen in Table 2, students' self-reports show that almost a third (31%) of them rarely committed violence. More than one sixth (17,7%) admitted to have committed such acts sometimes, often, or nearly always. This is a similar frequency as that found by Karlović (2006) and Velki and Vrdoljak, (2013), who found 17% of pupils have committed acts of peer violence. Our finding is somewhat smaller than the 24,7% of violent behaviour found in the Rijeka area (Žakula–Desnica, 2011). All of these results, including our own, show a higher frequency than the one found more than seven years ago on a representative sample for Croatia (Pregrad et al., 2007), where 12% of the students were found to be committing peer violence.

Table 3: Frequencies of particular answers to the following question: "In the past several months, how many times have you suffered violence in school?"

Answer categories	f	%
I have not suffered violence in the last several months	58	39,5
It happened once or twice	59	40,1
2-3 times a month	10	6,8
Once a week	5	3,4
Several times a week	15	10,2
Total :	147	100,00

By observing Table 3, we see that the pupils' self-reports show that 89 of the surveyed pupils (60,5%) were exposed to violence on at least one occasion. Of these 89, 59 (40,1% of the total) experienced violence once or twice. Among the 89 pupils who have at least once been victims of peer violence, 30, or a fifth of the total (20,4%), experienced violence often, and in a systematic and repeated manner. In comparison, the results for repeated and systematic violence are worse than in the rest of the country (10%, according to Pregrad et al., 2007), and worse than in the neighbouring county, where the proportion was 12,4% (Žakula–Desnica, 2011). These results are only lower than the ones in Velki and Vrdoljak (2013), who found that 31% of the surveyed pupils experienced systematic and repeated peer violence on a regular basis.

The association between peer violence and school climate

The association between peer violence and school climate will be analysed using Spearman correlations and two multiple hierarchical regressions.

Table 4: Spearman correlation coefficients for the school climate dimensions and the self-reported committed and experienced violence

		School Climate Dimension		
The Role of Pupils in Peer Violence		The teachers' constructive contribution to a supportive school climate (TCCCSSC)	Pupils' feeling of safety (PFS)	Destructive interpersonal relationships among the pupils (DIRAP)
	peer	-,13	,05	,19*
Committing violence	peer	-,05	-,24**	-,04
Experiencing violence				

* $p < 0,05$; ** $p < 0,01$

The results in Table 4 indicate that there is a low and positive correlation between the self-reported committed violence and the pupil's perception of destructive interpersonal relations among his/her peers. There is a low negative correlation between the self-reported experience of peer violence and the feeling of safety in school. In other words, the self-reported committed violence is in a proportional relationship with the pupil's perception of destructive interpersonal relationships among his/her peers, while the self-reported experiences of peer violence are in a reverse proportional relationship with the feeling of safety in school. The correlations are statistically significant on just two of the six analysed relationships. Given the low values of the correlation coefficients on just some of the school climate dimensions, the first hypothesis, stating that *there is an association between the exposure to, or committing of peer violence, and the school climate, in such a way that as the school climate becomes unfavourable, there is more exposure to or acts of peer violence, is just partially confirmed. This hypothesis also implies that, as the self-reported*

incidence of peer violence grows, the pupils' perception of the school climate becomes more unfavourable.

In order to determine the individual contributions of the particular dimensions of the school climate to explaining the variance of committing and experiencing peer violence, two independent multiple regressions were conducted. That also determined the maximum of the possible correlations between the particular roles in peer violence and the school climate components, and the proportion of explained variance for each of the peer violence behaviours. In these hierarchical regressions, each of the two observed behaviours in peer violence (committing it and experiencing it) became a dependent, or criterion variable. The first model analyses the predictive ability of the demographic variables (sex and age), given that the existing research has found these two variables to be significantly correlated with particular roles in peer violence. The second model includes the variables of three dimensions of the school climate: teachers' constructive and cooperative contributions to the school climate, pupils' positive feeling of safety in school, and the destructive interpersonal relationships among the pupils. Tables 5 and 6 present the results of the hierarchical regressions, which suggest that this paper's second hypothesis is partially confirmed.

Table 5: Multiple regression of sex, age, and school climate dimensions as predictors of committing peer violence, as self-reported by the pupils

		B	Beta	R ²	F-change
Model 1	Constant			0,13	
	Sex	-,62	-4,02**		
	Age	,13	2,50**		
Model 2	Constant			0,16	10,28**
	Sex	-,68	-4,16**		
	Age	,06	1,09		
	TCCCSSC	-,04	-,60		2,17
	PFS	-,02	-,12		
	DIRAP	,18	2,40*		

*p<,05; **p<,01; $\Delta R^2 = ,039$

Table 5 shows the results of the hierarchical regression of sex, age, and school climate dimensions as predictors of committing peer violence in school. In both models, sex and age, and the three dimensions of school climate explain 2% of the variance in the self-reports of committed violence.

It is also clear that sex and age present significant predictors of this variable, with boys and older students more commonly engaging in peer violence than girls or younger pupils do. In the second step of the regression, i.e. after controlling for sex and age, it can be seen that the perception of destructive interpersonal relationships among the students can be considered a significant factor associated with committing the violence. Even though the extent of the predictor's contribution to explaining the variance is small, it is significant, and it can thus be said that the pupil's increased perception of destructive relationships among peers likely contributes to his/her proclivity to commit peer violence. Our results imply that future research ought to address whether prevention of peer violence could be addressed by investing in ways of improving the pupils' perception of interpersonal relationships in the school.

Table 6: Multiple regression model of sex, age, and school climate dimensions as predictors of the way in which pupils perceive peer violence, as self-reported by pupils

		B	Beta	R ²	F-change
Model 1	Constant	2,47	3,00**	0,03	
	Sex	,18	,85		
	Age	-,14	-2,11*		
Model 2	Constant	3,51	3,63**	0,70	2,45
	Sex	,11	,51		
	Age	-,15	1,94		
	TCCCSSC	-,03	-,33		1,86
	PFS	-,57	-2,30*		
	DIRAP	,05	,57		

* $p < ,05$; ** $p < ,01$; $\Delta R^2 = ,017$

Table 6 presents the results of a hierarchical regression of sex, age, and school climate dimensions as predictors of experience of peer violence in school. In both models, sex and age, and the three dimensions of school climate explain 7% of the variance in the self-reports of suffered violence. It is clear that the age variable is the only one that reaches statistical significance, with younger pupils reporting suffering violence more often than older ones. In the second step, i.e. after controlling for the effects of sex and age, one dimension of the school climate may be considered a significant predictor of experiencing peer violence. Our results show that a pupil's diminished feeling of safety probably contributes to an increase in the experiences of peer violence. Thus, perceived safety at school, as one of the characteristics of the school climate, contributes to suffering peer violence. The second hypothesis, which states *that the school climate is a significant predictor of self-*

reported acts of and exposure to violence, is partially confirmed, since just one of the three observed dimensions is explaining the predictive space of the observed criterion variables. The result suggests, with the caveat of needing further research, that there is a need to invest in the preventive elements of the school climate in a way that increases the feeling of safety that the pupils experience in school.

DISCUSSION AND RECOMMENDATIONS FOR PREVENTIVE PRACTICE

After partializing the results that show that peer violence is more often committed by boys and older pupils, we can say that the first key finding of this paper is the fact that pupils who perceive the interpersonal relationships among peers as destructive are also more commonly committing peer violence. Second, by partializing the contribution of more common experiences of peer violence among the younger pupils, we can say that the pupils who perceive the school as an unsafe place are also those that more commonly experience peer violence. The total frequency of pupils who take part in violence is quite high, and higher than in the representative survey conducted several years ago across Croatia (Pregrad et al., 2007) deserves particular attention, especially since the school in question is not implementing a prevention programme.

Boys and older pupils tend to commit violence more often than girls and younger pupils do, which is where our project confirms the previous findings (Forero et al., 1996; Seals and Young, 2003; Rigby, 2002; Yang et al., 2006). Age is a significant predictor of a pupil's experience of suffering violence, because the younger pupils tend to be the victims of peer violence (Brajša-Žganec et al., 2009; Buljan Flander, Durman Marijanović and Ćorić Špoljar, 2007; Olweus, 1998; Velki and Vrdoljak, 2013). The literature recognizes that boys are a vulnerable group in this regard (Khoury-Kassabri, Benbenishty and Astor, 2005), and that the age of young adolescence is a vulnerable period in a young person's life (Noakes and Rinaldi, 2006). This can be a valuable guideline for the school in assuring the implementation of necessary measures of prevention.

It is possible that the younger pupils are more commonly the victims of violence because they are physically weaker, more timid and more insecure than their older colleagues (Olweus, 1998; Pregrad et al., 2007). Younger pupils do not have a developed set of social skills, nor are they able to stand up for themselves, which may be contributing to their higher likelihood of being victims. This is an additional reason for the school to implement prevention programmes which would teach the pupils to become socially competent in an assertive and non-violent manner.

Relying on the theory of social learning (Bandura, 1977, 1986), we ask whether it is possible that in the process of growing up some pupils learn that violent behaviour can assist them in getting ahead in their social environment? If one agrees with this interpretation, preventive measures should not

just be implemented with pupils, but should involve the community as a whole, and should promote the idea of non-violence at all levels: that of the pupils, the family, the school, the town, and the society as a whole.

The established predictiveness of certain elements of the school climate in the area of peer violence confirms the existing findings in the literature (Holtappels and Meier, 2000; Lindstrom Johnson, 2009; Leff et al. 2003; Swearer and Espelage, 2004; Elliot et al. 2010; Cornell, 2011; Cohen and Freiberg, 2013; Velki and Vrdoljak, 2013). The perception of destructive interpersonal relationships among the students is one of the predictors of carrying out of peer violence. The analysis of this result ties into the above analysis of the impact of the pupils' age on the two roles in peer violence, all in the context of the theory of social learning (Bandura, 1977, 1986). The logical premise is as follows: when a pupil thinks that he/she lives in a situation of aggravated relationships, then he/or she will most likely act in accordance. It is well known that the children who have had experience of abuse develop with time a warped perception of (occasionally inexistent) threats, and often act in a defensive manner even when the situation at hand is not truly threatening. It is likely that the students who are engaging in peer violence have already had previous experiences of the same or similar type. It is also well known that the so called "provoking victims" simultaneously carry the characteristics of bullies and of victims. For example, in Velki and Vrdoljak (2012), it is stated that there are four times more of pupils of that profile than there are those who are just bullies. It would appear that the thesis concerning the need to ensure a high quality environment for the children to grow in is more than justified because the child learns on the basis of experience. Preventive programmes in school ought to ensure experiences through which the students would perceive and learn constructive and positive interpersonal relationships with the older pupils starting from the first year in primary school. It is in this way that the pupils can learn a foundation of positive experiences in interpersonal relationships among pupils as an experienced basis for choosing to act in a pro-social way once they have grown. It is possible to formulate and design such content that would give the pupils the opportunity to cooperate, socialise, and realize positive social interactions in an entertaining and encouraging way, all throughout the school year.

We have found that the pupil's lower sense of safety contributes to a more frequent experience of peer violence, which confirms similar prior findings (Aluede et al., 2008; Harel-Fisch et al., 2011). This indicates that there is a need to establish clear rules of behaviour in all parts of the school, and around the school. The schools which implement a policy of clear, consistent, and fair rules are witnessing a lower level of violence, while the more positive relationships between teachers and pupils is related to lower levels of victimization (Khoury-Kassabri, Benbenishty and Astor, 2005;

Cohen and Freiberg, 2013). It is not enough to just establish the rules, since their implementation needs to be monitored as well. It is important that the adult school employees take responsibility for all places that are potentially at risk of being the locations of peer violence. If the students perceive their teachers and staff as helpful and supportive, then the students become more likely to report the cases of bullying that they are suffering (Eliot et al., 2010). Bearing in mind the fact that the students who have a negative perception of the school are twice as likely to be included in some type of bullying and peer violence than the children that do not have such a perception (Harel-Fish et al., 2011), the school ought to plan for an ennoblement of the space with stimulative didactic and methodical content, and investing in the adults' active engagement in school as providers of a relationship that makes the students feel safe, trusted, and accepted. The feeling of safety in school ought to be beyond any doubt for every pupil.

We believe that, from a professional and a human point of view (referring in particular to the Convention on the Rights of the Child), it is unacceptable to remain unmoved by there being a pupil in a school who is unable to express his/her feeling of a lack of safety. The topic of safety of the pupils in school ought to be the object of open debate among the school employees, between teachers and students, teachers and parents, and among everyone in the community. If this premise is accepted, it is likely that the attitude towards the appearance of peer violence would change and allow for an end to tolerance of the fact that some children abuse other children (in our research, it is the younger children that are abused, as are girls) in places we have failed to make safe. Toleration of this abuse and violence is also mirrored in the lack of a programme of prevention, and a lack of effort to start and implement one.

In conclusion, we may say that the prevention-focused implications of our finding that there is an association between committing violence and the school climate are in line with the existing theoretical conclusions which state that the high quality school requires "... an orientation towards a positive school climate in the form of firm and positive guidance, aimed at acceptance and responsiveness towards the needs of the pupils and the staff, as well as on the construction of relationships, the fulfilment of a safe physical environment which is well-maintained and welcoming, and the perception of the students as active and valuable members of the school's community" (Kranželić-Tavra, 2002, 10).

Our recommendations are thus directed at the local community which should support the school management in designing and implementing a professional program of prevention of bullying. This program would include the students, parents, and all the school staff, but also the community as a

whole, as stakeholders in the redefinition of the value system, with the following aims:

- 1) to improve the perception of interpersonal relationships among all the pupils in the school,
- 2) to achieve the feeling of safety among all the pupils,
- 3) to affirm the patterns of non-violent behaviour among all boys, starting at an early age.

CONCLUSION

The survey conducted with the fourth to eighth grade pupils in a primary school in the Lika-Senj County which is not implementing any bullying prevention programmes, found that 17,7% of them conducted peer violence in a repeated way (often or nearly always), and that 20,4% of the students have been systematically and repeatedly bullied by their peers in the several months prior to the survey. When controlling for the effects of sex and age, some of the characteristics of the school climate are weakly, but significantly associated with both the engagement in violence and the suffering of violence. Peer violence is more often committed by boys, and by the older pupils, as well as those pupils who perceive the interpersonal relations in the school as destructive. Peer violence is more often suffered by younger pupils and by those who perceive the school as an unsafe place.

The main limitation of the project is a small sample, so further research is suggested, as well as utilizing a more representative sample. Surveying the attitudes of all the stakeholders in the community (teachers, associates, parents, students, staff, local community) concerning the school climate and the means of preventing violence is also necessary. In that sense, it can be said that the authors tried to contribute to the efforts at prevention of peer violence in primary schools.

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