

## PEER VIOLENCE IN THE EIGHTH GRADE OF ELEMENTARY SCHOOLS IN SLOVENIA: ASSOCIATION BETWEEN PEER VIOLENCE AND SOCIO-ECONOMIC STATUS

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### **Abstract:**

Peer violence in school we face throughout the world is a big problem for both, the individual and the society. It affects students' mental and emotional health and development. It can also have influence on students' academic achievement. Tippett and Wolke (2014) did a review of published literature on school bullying and SES and identified 28 studies that reported an association between roles in school bullying (victim, bully, and bully-victim) and measures of socio-economic status (SES). Providing a safe and stimulating learning environment is therefore one of important goals of education (for all SES groups) and that is why researching violence among students is needed. School violence is associated to many different factors. In this paper we focus on the relationship between SES and peer violence at school. The data used in this paper is collected from the International Civic and Citizenship Education Study from its 2016 cycle (IEA ICCS 2016). We will focus on eighth grade students from Slovenia. We will use regression analysis to test if students with lower SES are more frequently exposed to peer violence than ones with higher SES.

*Keywords: peer violence, SES, ICCS, eighth grade students, learning environment.*

## 1. INTRODUCTION

Peer violence is a matter of considerable concern for quite some time, as many of the adults have been harassed or bullied in their own school days (Olweus, 1997, p. 496). "Bullying is defined as repeated, harmful behaviour, characterized by an imbalance of power between the victim and perpetrator(s)" (Olweus, 1993, in Nippett & Wolke 2014, p. 48). As the literature shows, victims of bullying have more chances of mental health problems, behavioural, emotional problems and depression; bullying also affects students achievements and furthermore there is also association between being bullied and suicide attempts (Copeland, Wolke, Angold & Costello, 2013, p. 419). This study uses data from the International Civic and Citizenship Education Study (ICCS) 2016. In Slovenia ICCS 2016 is conducted by the Educational Research Institute (ERI) and internationally it is coordinated by the International Association for the Evaluation of Educational Achievements (IEA) (Klemenčič, Mirazchiyski & Novak, 2018, p. 6). ICSS is conducted in cycles, first in 1999 (named CivEd at that time), in 2009 and lastly in 2016. Slovenia participated in all cycles. ICCS investigates civic knowledge, attitudes and their engagements in social and political life. The study "investigates the ways in which young people are prepared to undertake their roles as citizens" (ibid.). In ICCS 2016 the participating students were in their eight year of schooling and data from 24 educational systems were collected, so results can be compared among different educational systems (Schulz, Ainley, Fraillon, Agrusti & Friedman, 2016). The study included cognitive test for students and contextual questionnaires for students, teachers, schools and national contextual questionnaire (Klemenčič, Mirazchiyski & Novak, 2018, p. 6). The main goal of this study is to research if there is any association between socio-economic status (SES) and exposure to peer violence in schools. We will test the hypothesis that students from higher SES families are less frequently exposed to peer violence than others with lower SES and furthermore how the SES is associated to various forms of violence.

## 2. THEORETICAL FRAMEWORK

"Bullying involves repeated physical, psychological, or social harm, and often takes place in schools and other settings where children gather, as well as online" (Resler & Payan, 2018). Kristančič (2002, p. 97) defined violence as "a symptom of aggressive and hostile activities of individual groups and their members". Aggression describes as "all activities executed so as to cause damage to other person, animals and inanimate objects" (ibid, 98).

Davis et al. (in Berčnik and Tašner, 2018, p.75) argue that there are three groups of main risk factors for school violence, which can be "family-based (lack of supervision, lack of clearly established boundaries, social circumstances), school-based (level of tolerance, random staff), dependent on the local community (the degree of crime, dangerous neighbourhoods, social imbalance) or they can be of a wider social nature (violence in the media).

Many studies shows association between social conditions and delinquency of students. In schools we can detect three main categories of violence among students; physical, psychical and sexual violence. Researching of this area in necessary to established preventive strategies (Bučar-Ručman, 2009, p. 363).

Consequences of bullying can be visible in adulthood (ibid.). In literature we can find "some link between low SES and victims or bully-victims at school" (Tippett & Wolke, 2014, p. 48). Tippett & Wolke (2014) reviewed the literature on school bullying in association with socio-economic status (SES) and they found 28 papers on the problem.

*"Some studies found bullying others to be associated with low SES, including economic disadvantage, poverty, and low parental education. Additionally, where composite measures have been used, children from low socioeconomic backgrounds have been found to bully others slightly more often".* (Tippett & Wolke, 2014, p. 48).

School climate and quality of relationships in school can influence on students' achievement (Bear, Yang, Pell & Gaskins, 2014, p. 340). Student participation at the school level, interpersonal climate at school or classroom, and the quality of student-teacher relations and among students themselves are also important factors (Klemenčič, Mirazchiyski & Novak, 2018, p. 85). However, in this study, we will not focus on all dimensions of school climate, rather we will focus on safe environment at schools.

## 3. RESEARCH DESIGN

We performed secondary analyses using the Slovenian national database. The data used are from the International IEA's ICCS 2016. The sample is representative for eighth grade students from Slovenia,

meeting the sampling requirements of ICCS. In the national sample of ICCS 2016, 2,844 eight-graders took part in the study (Klemenčič, Mirazchiyski & Novak, 2018, p. 26 ).

Our main hypothesis is that Slovenian eight-graders with lower socio-economic status (SES) tend to be more frequently exposed to peer violence than the ones with higher SES.

To test this hypothesis and answer the RQ, we used descriptive statistics by category for each statement. In addition, we used regression analysis to test the association between bullying and student characteristics. The main student characteristic we focused on is the student's family SES.

The SES in ICCS is measured with three variables. The first variable is educational level of parents, the second one is their occupation and the third variable is the number of books that students have at home (Klemenčič, Mirazchiyski & Novak, 2018, p. 59). The results from ICCS 2016 showed that parents' occupation and civic knowledge of students are associated, and that the latter is also associated with the number of books at home and with higher education (short-cycle tertiary education (ISCED 5) and bachelor or equivalent (ISCED 6))(Ibid.). Therefore, also taking into account the findings in the literature, we expect to find association between student SES (as defined above) and exposure to peer violence of eight-graders in Slovenia.

In this paper we focus on the following research questions (RQ):

- How the socio-economic status (SES) of students differs based on how often they are bullied?
- How is SES associated with different forms of bullying?

The IEA IDB Analyzer we were using creates SPSS or SAS syntax that can be used to combine selected files and perform analysis with databases. "It generates SPSS or SAS syntax that takes into account information from the sampling design in the computation of sampling variance, and handles the plausible values" (IDB Analyzer, 2019). We used the IDB Analyzer with SPSS.

First we used merge module in IDB Analyzer, to get the data we wanted, Slovenian students in eight grade of elementary school. After that we were using Analysis module of IDB Analyzer to test association between SES and bullying. We used the data from international Student Questionnaire file.

We performed Linear Regression. We were testing association between bullying and student characteristic with variable "Students experience of physical and verbal abuse" and "National index of socioeconomic status". The first variable consist of variables that defines different forms of bullying (see Table 2) and as we said before, second variable (SES) is measured with three variables. We also tested variables of bullying separately in association with SES and used different reference category in several combinations with and without plausible values. Further we tested the connection between level of student's civic knowledge and bullying in Slovenia. We divided variable "National index of socioeconomic status" into three categories to see if there would be any different results.

## 4. FINDINGS

Calculations have shown interesting results that were against our expectations, that is, negligible connection between SES and bullying. No matter of which form of bullying we used, or frequency of being abused the results were similar, the regression coefficient was low and there was very small or none statistical significance in report.

One of the reasons for that could be that in comparison to other countries, Slovenia is still one of more egalitarian when it comes to wealth, statement that can be supported with a very low Gini coefficient. Gini Coefficient is defined as "the relationship of cumulative shares of the population arranged according to the level of equalised disposable income, to the cumulative share of the equalised total disposable income received by them" (Eurostat, 2018). In 2017 Slovenia had a Gini index of 23.7 and in comparison to other EU countries, only Slovakia scored better with 23.2 (Ibid.), so there are small differences in Slovenia and it has one of the lowest inequality rates. It would be interesting to test the relationship between SES and bullying in countries which have a higher Gini coefficient (i.e. higher inequalities).

This study has shown the connection between level of student's civic knowledge and bullying in schools to a level where we can assume that those students who score higher in civic knowledge proficiency test tend to be less often victims of school violence, however we can't present reasons why. In other words, students who are abused less often tend to have higher civic knowledge.

**Table 1:** Percentages of students who reported to have had the following experience at least once in the past three months

Country	A student called you by an offensive nickname.	A student said things about you to make others laugh.	A student threatened to hurt you.	You were physically attacked by another student.	A student broke something belonging to you on purpose.	A student posted offensive pictures or text about you on the Internet.	Average scale scores for students' reports on physical or verbal abuse
	%	%	%	%	%	%	
Belgium (Flemish)	58 (1.5) △	53 (1.2) ▽	21 (1.1) △	17 (0.9)	14 (0.8) ▽	6 (0.7) ▽	50 (0.2)
Bulgaria	53 (1.3)	60 (1.3) △	20 (1.0)	17 (1.1)	17 (1.1) ▽	12 (1.0)	51 (0.3) △
Chile	52 (0.9) ▽	59 (0.7) △	16 (0.7) ▽	15 (0.5) ▽	23 (0.8) △	10 (0.5)	50 (0.2)
Chinese Taipei	36 (1.0) ▽	42 (1.0) ▽	5 (0.4) ▽	11 (0.6) ▽	8 (0.5) ▽	6 (0.5) ▽	46 (0.2) ▽
Colombia	61 (1.2) △	61 (1.3) △	15 (0.6) ▽	17 (0.6)	31 (1.1) ▲	8 (0.5) ▽	51 (0.3) △
Croatia	70 (1.1) ▲	63 (1.2) △	25 (1.1) △	20 (1.1) △	23 (1.1) △	8 (0.7)	52 (0.3) △
Denmark†	44 (1.1) ▽	60 (1.1) △	14 (0.6) ▽	12 (0.6) ▽	14 (0.7) ▽	9 (0.5)	49 (0.2) ▽
Dominican Republic	54 (1.2)	66 (0.9) △	27 (1.0) △	27 (1.0) ▲	31 (1.0) ▲	10 (0.6)	52 (0.2) △
Estonia <sup>1</sup>	55 (1.4)	64 (1.2) △	19 (1.1)	14 (0.8) ▽	16 (0.7) ▽	11 (0.8)	50 (0.3)
Finland	42 (1.1) ▽	51 (1.0) ▽	15 (0.8) ▽	14 (0.8) ▽	8 (0.6) ▽	7 (0.5) ▽	48 (0.2) ▽
Italy	52 (1.1) ▽	42 (1.0) ▽	17 (0.9) ▽	11 (0.7) ▽	29 (1.2) △	6 (0.5) ▽	49 (0.2) ▽
Latvia <sup>1</sup>	60 (1.0) △	44 (1.1) ▽	23 (1.1) △	19 (0.9) △	24 (1.2) △	10 (0.7)	50 (0.2)
Lithuania	59 (1.1) △	67 (1.0) ▲	21 (1.0)	14 (0.9) ▽	19 (1.2)	14 (0.9) △	51 (0.2) △
Malta	58 (0.8) △	65 (0.8) △	29 (0.8) ▲	24 (0.6) △	20 (0.7)	13 (0.6) △	52 (0.2) △
Mexico	63 (1.1) △	64 (1.0) △	19 (0.8)	20 (0.8) △	28 (1.0) △	11 (0.6) △	52 (0.3) △
Netherlands†	48 (1.4) ▽	43 (1.3) ▽	13 (0.7) ▽	11 (0.7) ▽	13 (0.8) ▽	6 (0.6) ▽	47 (0.3) ▽
Norway (9) <sup>1</sup>	56 (1.1)	59 (1.0) △	19 (1.0)	18 (0.8) △	19 (1.0)	13 (0.5) △	50 (0.3)
Peru	64 (0.9) △	60 (0.9) △	20 (0.9)	20 (0.8) △	27 (0.9) △	11 (0.7) △	51 (0.2) △
Russian Federation	61 (1.2) △	49 (1.0) ▽	21 (0.9) △	9 (0.5) ▽	25 (1.1) △	13 (0.8) △	49 (0.3) ▽
Slovenia	58 (1.3) △	59 (1.0) △	20 (0.9)	17 (0.9)	27 (0.9) △	11 (0.8)	51 (0.2) △
Sweden <sup>1</sup>	44 (1.4) ▽	54 (1.3) ▽	17 (1.2)	16 (1.2)	15 (1.1) ▽	9 (0.6)	49 (0.4) ▽
<b>ICCS 2016 average</b>	<b>55 (0.3)</b>	<b>56 (0.2)</b>	<b>19 (0.2)</b>	<b>16 (0.2)</b>	<b>20 (0.2)</b>	<b>10 (0.1)</b>	<b>50 (0.1)</b>
<b>Countries not meeting sample participation requirements</b>							
Hong Kong SAR	52 (1.6)	66 (1.2)	19 (1.2)	27 (1.3)	18 (1.3)	14 (1.0)	52 (0.3)
Korea, Republic of <sup>2</sup>	45 (1.7)	28 (1.4)	5 (0.5)	13 (0.8)	10 (0.7)	5 (0.6)	46 (0.3)
<b>Benchmarking participant not meeting sample participation requirements</b>							
North Rhine-Westphalia	43 (1.8)	50 (1.6)	17 (1.2)	17 (1.1)	18 (1.1)	8 (0.8)	49 (0.3)

#### National ICCS 2016 results are

more than 10 percentage or 3 score points above average ▲	▲	▲	▲
significantly above average △	△	△	△
significantly below average ▽	▽	▽	▽
more than 10 percentage points or 3 score points below average ▼	▼	▼	▼

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling participation rates only after replacement schools were included.

<sup>1</sup> National Defined Population covers 90% to 95% of National Target Population

<sup>2</sup> Country surveyed target grade in the first half of the school year.

Source: Schulz, Ainley, Fraillon, Agrusti and Friedman, 2016, pg. 157.

We can see in Table 1 that if we compare Slovenia to other participating educational systems in the ICCS 2016, we can observe that eight-graders in Slovenia are more likely to report peer violence as others in the international average. Educational systems with high percentages of reported peer violence are Croatia, the Dominican Republic, Colombia, Lithuania, Malta, Mexico, Peru and Slovenia. The least violence is detected in Chinese Taipei, Finland, Italy, Netherlands, the Russian Federation and Sweden (Klemenčič, Mirazchiyski & Novak, 2018, p. 92). Due to our focus on students (eight-graders in particular) in Slovenia, it is important to know how often students were exposed to different forms of bullying. The following table presents the student answers to the statements related with school bullying from the student questionnaire (the standard errors are in parentheses).

**Table 2:** The forms of bullying to which students were exposed to during the last three months in Slovenia

	Not at all	Once	2 to 4 times	5 times or more
A student called you by an offensive nickname.	42.26 (1.28)	24.14 (0.84)	17.00 (0.91)	16.61 (0.82)
A student said things about you to make others laugh.	40.60 (0.97)	28.25 (0.76)	18.29 (0.81)	12.85 (0.78)
A student threatened to hurt you.	80.11 (0.86)	11.73 (0.62)	5.30 (0.45)	2.86 (0.31)
You were physically attacked by another student.	83.18 (0.85)	10.86 (0.69)	3.20 (0.41)	2.75 (0.31)
A student broke something belonging to you on purpose.	72.85 (0.90)	19.22 (0.82)	5.33 (0.43)	2.60 (0.30)
A student posted offensive pictures or text about you on the internet.	88.95 (0.79)	7.64 (0.63)	1.95 (0.26)	1.46 (0.25)

Source: Klemenčič, Mirazchiyski and Novak, 2018, pg. 92.

As can be seen from the table above, the majority of eight-graders in Slovenia were not exposed to bullying in the last three months prior to data collection, especially in different forms of physical bullying and calling other students by an offensive nickname. However, a proportion of students were exposed to different forms of bullying: some of them one in the last three months, others either one of 2 to for times in the last three months, some of the eight-graders even 5 times or more in the last three months.

**Table 3:** Frequencies for SES by categories

Participant Percent Code (s.e.)	SES by categories	N of cases	Sum of TOTWGTS	Sum of TOTWGTS (s.e.)	Percent
,83	Low SES	480	2954	151,05	17,00
1,27	Medium SES	1766	10771	294,26	61,99
1,37	High SES	598	3652	268,40	21,01

To see if there would be any differences, the variable of national index of SES has been divided into three categories (low, medium and high SES), as we can see in Table 3. We used SPSS to split the variable into categories and then we calculated frequencies in IDB Analyzer. The results have shown that as high as 62 % of Slovenian eight grade students belong to the category with medium SES. We compute the results with this new variable (SES by category), but once again the results came out with very little or none statistical significance of connection between SES and bullying. However, even if low, violence in schools is still present and any level of bullying in school is too high, so we should therefore work towards decreasing it.

## 5. CONCLUSION

Although literature shows association between SES and bullying, our study didn't show any statistical significance between those two variables. We can assume that one factor why we didn't find any connections could be the Gini coefficient which in Slovenia is very low. The majority of eight graders in Slovenia are in the middle category with medium socioeconomic status and in general Slovenia is egalitarian country with low differences in wealth distribution. Findings in this paper show that students with lower socioeconomic status are not more frequently exposed to peer violence than the ones with higher socioeconomic status. Even if the study didn't show what we assumed, there is still school violence present which is a problem in society. An important goal for education is to establish safe and stimulating learning environment which is necessary for all of students regardless of their race, ethnicity, gender or SES. Peer violence and bullying can have terrible and long-lasting consequences, and this is why more research on violence among students is needed. The topic can be further investigated as an important determinant of school climate. This study was just a small contribution to researching violence in schools, but there are many further aspects of violence that should be better investigated, because background of violence must be well researched, to provide anti-violence policies which "must be a matter of the needs of a particular school, formed by a team of experts at the school" (Berčnik & Tašner, 2018, p. 83). In the future studies we should focus on the identifying the variables that are connected to bullying.

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