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Original research article

STUDENTS OF PHYSICAL EDUCATION AND SPORTS AS VICTIMS AND BULLIES, THEIR ACADEMIC SELF-CONCEPT AND INTERPERSONAL TRUST WITHIN THE FAMILY

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Abstract. The authors study the relationship between bullying among students, their self-concept and interpersonal trust within the family based on a sample of 484 students of the Faculty of Physical Education and Sports aged between 19 and 23 from Serbia and Bosnia and Herzegovina. The three key findings have been reached. Firstly, students who in their answers to Olweus BVQ (Bully-Victim Questionnaire, 1993) stated that they were most likely victims are better at school than students who stated that they were bullies. Secondly, by combining the relationships of victims and bullies, it has been found that bullying is connected with a lower self-concept and interpersonal trust within the family. The third finding, which has been reached by a regression analysis, illustrates that along with age (years of study and age) student victimization decreases and that the academic self-concept, interpersonal trust within the family and sex predetermine bullying behaviour of students in a negative way, while the state and both the father's and mother's qualifications predetermine bullying behaviour in a positive way. Besides these findings, the paper raises a series of new research questions, and at the end of it the authors point out the limitations of this study.

Key words: Physical education and sport, Bullying, Academic self-concept, Self-worth, Interpersonal trust within the family.

INTRODUCTION

Every day the number of unemployed people rises. That diminishes the opportunities for the young and leads them to hopelessness and aggression. Besides economic reasons, violence can also be determined by family relations (Amodei & Scott, 2002; Farrington,

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1991), social and cognitive factors (Bandura, 1989) and internal motives, such as frustration and aggression (Dollard, Doob, Miller, Mowrer, & Sears, 1939). All in all, reasons for the aggressive behaviour of children and the young are very complex and different, including biological, chemical, political, economic and sociological reasons for violence (Amodei & Scott, 2002). Most research deals with emerging forms of violence and consequences, while reasons for violence are not researched to that extent. In this paper we would like to find out something more about the influence of the academic self-concept and interpersonal trust within the family on bullying among students. Apart from these, we also consider ten more variables: state, country/city, grade, sex, academic success at the end of the first semester, academic success at the end of the school year, number of family members, age of the students, the father's qualifications and the mother's qualifications.

As part of the theoretical observation of this problem, it was necessary to take into consideration multiple theories which answer the question concerning the reasons for violence among the students Faculty of Physical Education and Sports. We have analysed five theoretical standpoints: cognitive neoassociation theory (Berkowitz, 1993; Dollard et al. 1939), social cognitive theory (Bandura, 1989), script theory (Huesmann, 1988), excitation transfer theory (Zillmann 1983), and social interaction theory (Tedeschi & Felson, 1994). The authors of the cognitive neoassociation theory (Berkowitz, 1993; Dollard et al., 1939) begin from the standpoint that negative emotions, which arise as a consequence of frustration, provocation, unpleasant temperature, smell or some other uncomfortable motive, result in aggression and violent behaviour, i.e. in fear and running away. The social cognitive theory (Bandura, 1989) explains violence using social learning. People adopt patterns of aggressive and submissive behavior in the same way they learn other forms of social behaviour. Script theory (Huesmann, 1988) states that children see violence on TV and other media and after that children transfer these patterns into their reality. The excitation transfer theory (Zillmann, 1988) starts from the standpoint that negative arousal transforms change in such a way that the one which is stronger and more durable will domiante. For instance, if you want to be an angry person, you should be angry with and resentful of somebody all the time. Social interaction theory (Tedeschi & Felson, 1994) explains that people using corrective measures gradually adapt their behaviour to that of others from their surroundings in accordance with their assessment of things and events. For instance, in communities in which money is the dominant value, most individuals will in time adapt their behaviour and value money more. Followers of social interaction theory are of the opinion that violence is also learnt in this way. Bandura's social cognitive theory has been chosen out of the five considered theories because it most precisely explains social influences which are exerted by the family and school. Our study deals with academic self-concept students of physical education and sport, i.e. with their relation towards studying and with interpersonal trust within the family.

Alfred Bandura (1986) found out that self-concept and self-worth determine personal standards and values, but also that it is not valid for self-efficiency. We study the academic self-concept, and it has a considerable amount of self-efficiency within it. Therefore, the findings of this research are expected to be in accordance with this. The academic self-concept belongs to the self-belief construct, and this means that individuals compare themselves to others in normative and performative manners (Marsh, Trautwein, Lüdtke, & Köller, 2008). If students do not see themselves as somebody who should be respected in the eyes of others, and if they have unstable self-worth, they are prone to aggression (Anderson & Bushman, 2002). Students with high self-worth are also prone to aggression (ibid.). According to the criterion of academic self-concept, a student will respect himself or herself if academic

achievement is highly valued in his or her environment, among his peers and parents and in society.

Students who had higher scores on the peer-victimization scale and students who had higher scores at the bully scale achieved lower scores at the self-worth inventory (Andreou, 2000). Students can have a high level of self-worth and a lower level of academic selfconcept. Namely, academic self-concept is not necessarily a component of positive selfworth. Daniel Olweus (1993) thinks that schools stimulate violence among children by rewarding students' struggle for higher marks. However, there is a difference among schools at this point; in some of them violence is expressed to a considerable extent, while in others it is not (Popadić, 2009). This is one of the reasons why students usually do not appreciate, i.e. do not highly value academic success. Nevertheless, a student's behaviour at school can show us that he or she is exposed to violence or that he or she has already become a bully, even when the student does not have good academic success. A series of such indicators are offered by Allan Beane (2002). For example, a student suddenly becomes introverted, avoids looks, changes his or her posture, etc. When a teacher recognizes these symptoms, he or she can help the student by giving him or her emotional support. Research has shown that a teacher's emotional support considerably contributes to a student's academic self-concept (Felner, Aber, Primavera, & Cauce, 1985; Partrick, Ryan, & Kaplan, 2007). In our study we would like to find out how high victims' and bullies' academic success is and whether there is a difference between the students of the Faculty of Physical Education and Sports.

THE METHOD

If we accept Bandura's thesis that violent behavior is learnt, like other social agents of behaviour are learnt (1986), then we will certainly arrive at the point that family is one of the key factors for the development of a child as a bully or as a victim. As a risk factor, family generates violence in at least three ways; the relationship between the parents and a child, the techniques and methods that parents use to raise a child and conflicts and violence in the family (Dahlberg, 1998). Children who experienced abandonment, mistrust or indifference by their parents are more likely to become victims or bullies (Henggeler, Melton, & Smith, 1992; Louber & Stouthamer-Loeber, 1986). For example, a child that is exposed to parental physical violence and punishment every day will learn that that is "normal" and a good way of doing things and will acquire violence as a usual way of behaving. The emotional climate in the family plays a very important role in forming violent patterns of children's behaviour. Children who are not adequately emotionally accepted by their parents have a higher likelihood for becoming victims or bullies among their peers (Farrington, 1991).

The study results show that parents unconsciously encourage their children's aggressive behaviour by rewarding or encouraging violence and failing to reward non-violent forms of behaviour (Patterson, DeBaryshe, & Ramsey, 1989). If the level of family acceptance of a child is high, the child will be more resistant to peer violence. It has been found out in the study that family conflicts correlate in a negative way with the factor of a child's acceptance (r=-0.498), and that the autonomy that parents support their child with correlates in a positive way with the factor of a child's acceptance (r=0.665). It has also been found that egalitarian families have a better family climate in comparison to traditional ones (Mihić, Zotović, & Jerković, 2006). In our study we would like to find an answer to the question

whether interpersonal trust within the family predetermines whether a child will be a victim or a bully.

In the present study we searched for an answer to three key questions. The first one is whether there are differences between victims and bullies considering their academic success, academic self-concept and interpersonal trust within the family. The second one is whether victims' self-concept and bullies' self-concept are considerably different in the victim-bully combination. The third study question is whether we can find any predictors of peer violence among the students of Physical Education and Sports.

Participants

Students of the Faculty of Physical Education and Sports (N=484) were included in the sample, 246 students from Serbia and 238 students from the Republic of Srpska, i.e. from Bosnia and Herzegovina. This difference is not statistically significant (χ^2 =0.132; p=0.716). There are 254 male students and 230 female students. This difference does not have any statistical significance, either (χ^2 =0.190; p=0.275). The participants are 19-23 years old: 242 first and second year students, and 242 third and fourth year students. Besides using the instruments, the participants filled in the data on age, academic success, place of residence and their parents.

Instruments

Three instruments have been used in the study: the ASC-scale (Academic Self-Concept; Marsh et al., 2008), BVQ (Bully-Victim Questionnaire; Olweus, 1993) and TITF (Test of Interpersonal Trust in Family; the instrument that has been designed for the purpose of this study). The ASC has 20 items, and its internal consistency measured by Cronbach's alpha coefficient is α =0.94. It measures the control strategy, students' effort and persistence, the perception of self-efficiency, self-confidence, self-control and academic self-concept. One of the 20 items reads as follows: I am sure that I can understand the most difficult material that we learn. All the questions are answered using a scale from 1=It is not valid for me at all to 5=It is completely valid for me. The second instrument is BVQ which has 22 questions, out of which 11 are intended for children as victims (α =0.84), and the remaining 11 for children as bullies (α =0.90). One question for the victims reads as follows: Somebody has either punched or pushed you, and the same question for bullies reads: You have either punched or pushed somebody. All the questions are answered using the scale: 0=never, 1=rarely and 2=almost every day. The third instrument is the TITF with 24 claims, and their internal consistency measured by Cronbach's alpha coefficient is α =0.90. When I am offended by one of my peers, I talk to: mother, father, sister/brother, grandmother/grandfather. The participant answers for each member of the household respectively using the scale: 0=I do not talk about that with..., 1=I rarely talk about that with ..., 3=I occasionally talk about that with..., 4=Whenever it is necessary, I talk about that with... and 5=I seek help or advice on that matter from... All of the instruments have a considerable amount of internal consistency and meet the statistical criteria for methodological cross-correlations.

RESULTS AND DISCUSSION

Violence, academic success, interpersonal trust within the family and the academic selfconcept.

Students were classified into four categories. In the first category there are students who are neither victims nor bullies, and students who have declared that they are very rarely exposed to violence and those who have declared that they have never been exposed to violence. The latter were only about 3% (14). This finding is in accordance with Beaty & Alexevey's (2008) claim that almost all students experienced some form of violence. In the second category there are victim students, and they have declared by using Olweus' instrument (Olweus, 1993) that they were exposed to violence above the average rate, i.e. more often. The third category consists of those who have declared that they have turned to violence in comparison to other children, and that they have not been victims so often, bullies. The third group is comprised of students who have declared that they have turned to violence above the average rate but that they have also been exposed to violence to the same degree, which makes the category of both victims and bullies. It has turned out that victim students as well as those who declared themselves neither victims nor bullies in Bosnia and Herzegovina had better academic success than bullies ($F_{(3)}$ =5.36; significant at the level 0.001; Table 1), but in Serbia this is not the case, because students who are both victims and bullies had the highest academic success (M=4.63) along with those who have declared themselves neither victims nor bullies (M=4.43). These two categories in Serbia are marked by better academic success in comparison to those who have clearly been classified as victims and bullies ($F_{(3)}$ =2.70; significant at the level 0.05; Table 1). These differences can be explained with the rigidity of the traditional education system in the two countries which have the same educational heritage, but also with other factors that should be clarified in this new study.

Violence among the young spreads differently in different states nowadays. Violence is more pronounced among the citizens of the USA than among citizens of other developed industrial countries (Amodei & Scott, 2002). In our sample we have found differences between students who attend classes in Serbia and students who attend classes in Bosnia and Herzegovina (Table 1). In Serbia there is a difference between victim students and bully students regarding the kind of interpersonal trust they have within the family $(F_{(3)}=4.65;$ significant at the level 0.004; Table 1), while in Bosnia and Herzegovina this difference is not statistically significant ($F_{(3)}$ =2.37; significant at the level 0.072; Table 1). The academic self-concept of the students in Bosnia and Herzegovina significantly differs from the sample of Serbian students regarding the level of exposure to violence or whether they are bullies ($F_{(3)}$ =13.35; significant at the level 0.001; Table 1). Students who are neither victims nor bullies (M=4.15), along with victim students (M=4.28), have a significantly higher academic self-concept than bully students (Table 1), while in Serbia this is not the case, because the difference has not been found there $(F_{(3)}=1.42;$ significant at the level 0.238; Table 1). A new study which would take traditionalism and modernization of the teaching process as parameters would of course be appreciated here.

Table 1 Violence, academic success, interpersonal trust within the family and the academic self-concept of students of Physical Education and Sports

Variable	Exposure to violence	Bosnia and Herzegovina				Serbia					
		N	M	SD	F ₍₃₎	P	N	M	SD	F ₍₃₎	р
Academic	Neither victim nor bully	132	4.23	0.80			112	4.43	0.85		
	Victim	40	4.60	0.71			23	4.17	0.94		
	Bully	27	3.81	1.04			30	4.30	0.88		
success	Both victim and bully	39	4.05	9.94			81	4.63	0.62		
	Total	238	4.21	0.86	5.36	0.001	246	4.46	0.80	2.70	0.046
Inter-	Neither victim nor bully	132	2.35	0.74			112	2.58	0.74		,
personal	Victim	40	2.50	0.64			23	2.56	0.84		
trust	Bully	27	1.99	0.95			30	2.01	0.81		
within the	Both victim and bully	39	2.32	0.86			81	2.30	0.91		
family	Total	238	2.33	0.78	2.37	0.072	246	2.42	0.84	4.65	0.004
Academic self-concept	Neither victim nor bully	132	4.15	0.78			112	4.07	0.68		
	Victim	40	4.28	0.63			23	4.03	0.73		
	Bully	27	3.45	0.97			30	3.86	0.84		
	Both victim and bully	39	3.42	1.00			81	4.18	0.78		
	Total	238	3.97	0.88	13.35	0.000	246	4.08	0.74	1.42	0.238

Note: Academic success is denoted by marks from 1 to 5; Interpersonal trust within family is denoted by a scale from 0 to 4; Academic self-concept is denoted by Likert-type scale from 1 to 5.

In order to explicitly prove the first hypothesis, we have extracted from Table 1 only those students who are classified only as victims and those classified as bullies. We have collected data for Serbia as well as Bosnia and Herzegovina, that is, for the whole sample, and Table 2 illustrate the difference between victim students and bully students by using an independent sample *t*-test.

Table 2 Differences between victims and bullies in terms of academic success, academic self-concept and interpersonal trust within the family

Variable	Category	N	M	SD	t-value	P
Academic success	Victim	63	4.56	0.64	2.433	0.016
	Bully	57	4.19	0.97		
Interpersonal trust within the family	Victim	63	2.52	0.72	3.575	0.001
	Bully	57	2.00	0.87		
Academic self-concept	Victim	63	4.30	0.57	4.720	0.000
	Bully	57	3.69	0.83		

Note: Academic success is denoted by marks from 1 to 5; Interpersonal trust within family is denoted by a scale from 0 to 4; Academic self-concept is denoted by Likert-type scale from 1 to 5.

The bullies have significantly lower academic success (M=4.19) in relation to the victims (M=4.56) and that difference is significant (t =2.433; significant at the level 0.016). Similarly, bullies have lower interpersonal trust within the family (M=2.00) in relation to victims (M=2.52), and this difference is statistically significant (t =3.575; significant at the level 0.001; Table 2). The academic self-concept of victims (M=4.30) is significantly higher than the one of the bullies (M=3.69), and this difference is statistically significant (t=4.72; significant at the level 0.001; Table 2). This matches with the research of Eleni Andreou (2000), since she found that a higher level of violent behaviour is connected to a lower level

of self-esteem (p. 52). This has given us an unequivocal answer to the first study question: there is a difference between victims and bullies because the victims have achieved higher academic success, a higher score on the scale of academic achievement and a higher score on the test for interpersonal trust and support within the family.

A particularly interesting question is how exposure to violence below and above the average rate, and to violence alone below and above the average rate, as bipolarly derived variables, affect the students' academic self-concept. The best procedure for calculating this relation is a two-factor univariate ANOVA (Bryman & Cramer, 2001). By its application it will be determined whether exposure to violence and students' violent behavior affects their academic self-concept. More specifically, we will have the answer to the question whether the self-concept of the students who identified themselves as victims or as bullies above the average rate, and then as victims and bullies altogether, depends on this violent behaviour. After the calculations, these parameters are shown in Table 3.

Table 3 Students of Physical Education and Sports as victims and bullies in relation to their academic self-concept

Victim (Banded)	Bully (Banded)	N	(%)	M	SD	Sum of	F	p
						squares		
Victim: below-average	Bully: below-average	244	50.41	4.24	0.68			
	Bully: above-average	56	11.57	3.69	0.84			
	Total	300	61.98	4.14	0.74	2.71	5.14	0.024
Victim: above-average	Bully: below-average	63	13.02	4.30	0.57			
	Bully: above-average	121	25.00	3.98	0.83			
	Total	184	38.02	4.09	0.76	16.51	31.39	0.000
Total	below-average	307	63.43	4.25	0.66			
	above-average	177	36.57	3.89	0.84			
	Total	484	100	4.12	0.75	1.18	2.25	0.135

It has been shown that those who were violent above the average rate have a significantly lower self-concept (M=3.69) in relation to those who were victims and bullies below the average rate (M=4.24); therefore, this violent behaviour significantly lowers the students' self-concept (F₍₁₎=2.71; significant at the level 0.024, Table 3). A similar situation occurred in cases where students claimed that they were victims above the average rate. It is seen in the larger sum of squares (16.51), and this ratio is proved by the middle values of a scale, because students who are victims above the average rate have a higher self-concept when compared to students who are bullies below the average rate (M=4.30) than when they are compared to students who are bullies above the average rate (M=3.89) – this is proven by the F-index (F₍₁₎=16.51; significant at the level 0.001, Table 3). This is also proven by the last F-index in Table 3 (F₍₁₎=2.25; significant at the level 0.135), where we can see that it has no statistical significance, which means that the students who are, at the same time, both victims and bullies do not differ in the average value of expressed self-concept. We see from those data that the victims' self-concept and bullies' self-concept are significantly different, and that is the answer to our second research question.

The third research question was whether we can register any predictors of the behavior of victim and bully students of Physical Education and Sports. In order to answer this question we applied a regression analysis (Bryman & Cramer, 2001). We statistically tested 12 variables: state, country/city, grade, sex, academic success at the end of the first

Father's qualifications

of the first semester

Academic success at the end

semester, academic success at the end of the school year, number of family members, age of the students, father's qualifications, mother's qualifications, academic self-concept and interpersonal trust within family. After the calculations, six variables were excluded and six were left (Table 4).

Variable В SE $F_{(1)}$ p Collinearity (VIF) -0.258 0.07 Grade -0.059 0.010 34.392 0.000 1.000 -0.049 0.010 $-0.210 \ 0.04$ 1.000 22.216 0.000 Age State 0,156 0,035 0,198 0.04 19.653 0.000 1.000 Mother's qualifications 0.057 0.020 0.131 0.02 8.395 0.004 1.000

0.055 0.020

0.042 0.018

0.123 0.02

0.104 0.01

7.459 0.007

5.308 0.022

1.000

1.000

Table 4 Regression Analysis Predicting Victimization

It is shown that the year of study (β =-0.258) and their age (β =-0.210) significantly (at the level 0.001; Table 4) predetermines whether the students will be victims – the higher the grade and the age of the students, the lower the number of their statements that they are victims, which is shown by the negative beta coefficients (Table 4). This finding is in accordance with the study data which has proven that violence decreases with age (Baety & Alexeyev, 2008). The positive predictors of victimization are state (β =0.198), the mother's qualifications (β =0.131), the father's qualifications (β =0.123) and academic success at the end of the first semester (β = 0.104). All in all, the negative and positive predictors of student victimization account for 20% of the variance, which means that the search for new predictors should be conducted in a new study.

During our search for the predictors of students' violent behaviour, we applied a regression analysis to all twelve variables, and for victimization as well. After the calculations, there were six predictor variables left, and the same number was excluded (Table 5). We found three positive and three negative predictors. The positive predictors are: state (β =0.265), the mother's qualifications (β =0.202) and the father's qualifications (β =0.198), and the negative are academic self-concept (β =-0.161), interpersonal trust within the family.

Table 5 Regression Analysis Predicting Violence

Variable	В	SE	β	\mathbb{R}^2	F ₍₁₎	p	Collinearity
							(VIF)
State	0.203	0.034	0.265	0.07	36.420	0.000	1.000
Mother's qualifications	0.086	0.019	0.202	0.04	20.592	0.000	1.000
Father's qualifications	0.085	0.019	0.198	0.04	19.716	0.000	1.000
Academic self-concept	-0.082	0.023	-0.161	0.03	12.811	0.000	1.000
TITF	-0.057	0.021	-0.119	0.01	6.964	0.009	1.000
Sex	-0.081	0.035	-0.106	0.01	5.506	0.019	1.000

These six predictors have accounted for 20% of the variance. A particularly interesting finding is that a higher level of violent behaviour is evident among the students who have a lower academic self-concept ($\beta = -0.161$; $F_{(1)} = 12.811$; significant at the level 0.001; Table 5)

and a lower level of interpersonal trust within the family (β =-0.119; $F_{(1)}$ =6.964; significant at the level 0.009; Table 5). The collinearity index (VIF) in all regression crossings meets the criterion because it equals 1.

CONCLUSIONS

This study has given us three significant findings about students as victims and bullies. Firstly, the students who declared themselves as victims in Olweus BVQ have higher academic success than bully students. Secondly, the combined relationship of victims and bullies shows that violence is connected with a lower self-concept of the child, because above-average violence results in a lower self-concept compared to belowaverage violence. The third finding is that, on the one hand, with age (year of study and age) the victimization of students decreases, but that the state, father's qualifications and mother's qualifications positively predetermine violence in children; therefore the academic self-concept, interpersonal trust within the family and sex negatively predetermine violent behavior of the students. Each of these three findings has special significance for psychologists, therapists and pedagogues in schools. For example, the second finding points out that the programmes for the suppression of violence among students should project the strengthening of the students' academic self-concept.

This research has shown that almost every student has experienced violence, because only 3% of the students stated that they had not experienced any violence, whether as a victim or as a bully. This points to the fact that the prevalence of violence among young people from 19 to 23 years of age is very high, which is a common occurrence throughout the world (Baety & Alexeyev, 2008), and we have recorded the same thing in our sample concerning Serbia and Bosnia and Herzegovina.

In accordance with the social cognitive theory of Alfred Bandura (1986; 1989), violent behaviour is learned, in the same way as the submissive behaviour of a victim. External and internal arousals go through the cognitive processing (Kostić, 2006), and form key concepts and constructs on the basis of which we can perceive and, at least partially understand the formation of aggressive behaviour, and, therefore, explain violence. The academic selfconcept is primarily a cognitive construct and in our research we have found that it slightly reduces violence. It would be very useful to check in a new study to what extent the program for strengthening this self-concept would affect the reduction of students' violent behaviour. In the same way, it would be interesting to find out how much the strengthening of interpersonal trust within the family reduces violence among the young. One should bear in mind that interpersonal trust is not the same as family support; it is just one aspect of support which a family can give to a child.

By applying regression testing to these variables, we have explained only 20% of the variance, which means that we are left with a very wide area for further explanations and further research. It would be very significant to examine the environmental and sociodemographic factors, because in our sample the variable state appears as a significant predictor of violence among students of Physical Education and Sports.

In this study we have not covered the informal forms of violence among students, and research has shown (Suzić & Branković, 2012) that informal violence is more widespread than formal violence. Besides, informal violence decreases students' motivation (ibid.), and if we set intrinsic motivation as the goal of efficient teaching (Trebješanin, 1998), then it is necessary to investigate all aspects of violence as a demotivating teaching component.

REFERENCES

- Amodei, N., & Scott, A.A. (2002). Psychologists' contribution to the prevention of youth violence. The Social Science Journal, 39(4), 511–526.
- Anderson, C.A., & Bushman, B.J. (2002). Human aggression. Annual Review of Psychology, 53(1), 27-51.
- Andreou, E. (2000). Bully/victim problems and their association with psychological constructs in 8- to 12-year-old Greek schoolchildren. *Aggressive Behavior*, 26(1), 49–56.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1989). Social cognitive theory. In: R. Vasta (Ed.), Annals of child development. Vol. 6. Six theories of child development (pp. 1–60). Greenwich, CT: JAI Press.
- Beane, A.L. (2002). The bully free classroom. Minneapolis, MN: Free Spirit Publishing Inc.
- Beaty, L.A., & Alexeyev, E.B. (2008). The problem of school bullies: What the research tells us? *Adolescence*, 43(169), 1–11.
- Berkowitz, L. (1993). Pain and aggression: Some findings and implications. *Motivation & Emotion*, 17(3), 277–293. Bryman, A., & Cramer, D. (2001). *Quantitative data analysis with SPSS release 10 for Windows: A guide for social*
- scientists. New York: Routledge.

 Dahlberg, L.L. (1998). Youth violence in the United States: Major trends, risk factors and prevention approaches.
- American Journal of Preventive Medicine, 14(4), 259–272.

 Dollard, J., Doob, L.W., Miller, N.E., Mowrer, O.H., & Sears, R.R. (1939). Frustration and aggression. New Haven,
- CT: Yale University Press.

 Farrington, D.P. (1991). Childhood aggression and adult violence: Early precursors and later life outcomes. In: D.J. Pepler & K.H. Rubin (Eds.), *The development and treatment of childhood aggression*, (pp. 93–120). Hillsdale,
- Felner, R.D., Aber, M.S., Primavera, J., & Cauce, A.M. (1985). Adaption and vulnerability in high-risk adolescents: An examination of environmental mediators. *American Journal of Community Psychology*, 13(4), 365–379.
- Henggeler, S.W., Melton, G.B., & Smith, L.A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology*, 60(6), 953–961.
- Huesmann, L.R. (1988). An information processing model for the development of aggression. Aggressive Behavior, 14(1), 13–24.
- Kostić, A. (2006). Kognitivna psihologija (Cognitive psychology). Belgrade: Zavod za udžbenike i nastavna sredstva. In Serbian
- Louber, R., & Stouthamer-Loeber, M. (1986). Family factors as correlates and predictors of juvenile conduct problems and delinquency. In: N. Morris & M. Tonry (Eds.), Crime and justice: An annual review of research (Vol. 7, pp. 29–150). Chicago, IL: University of Chicago Press.
- Marsh, H.W., Trautwein, U., Lüdtke, O., & Köller, O. (2008). Social comparison and big-fish-little-pond effects on self-concept and other self-belief constructs: Role of generalized and specific others. *Journal of Educational Psychology*, 100(3), 510–524.
- Mihić, I., Zotović, M., & Jerković, I. (2006). Struktura i sociodemografski korelati porodične klime u Vojvodini (Structure and sociodemographic characteristics of the family climate in Vojvodina). Psihologija, 39(2), 297–312. In Serbian
- Olweus, D. (1993). Bullying at school: What we know and what we can do. Cambridge, MA: Blackwell.
- Patrick, H., Ryan, A.M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology*, 99(1), 83–98.
- Patterson, G.R., DeBaryshe, B.D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. American Psychologist, 44(2), 329–335.
- Popadić, D. (2009). Nasilje u školama (Bullying at schools). Belgrade: Institute of Psychology and UNICEF. In Serbian
- Suzić, N., & Branković, D. (2012). Informal youth violence. In: M. Zhu (Ed.), ICEEM 2012: International Conference on Economic, Education and Management, (pp. 19–31). Shanghai: Hong Kong Education Society.
- Tedeschi, J.T., & Felson, R.B. (1994). Violence, aggression, & coercive actions. Washington, DC: American Psychological Association.
- Trebješanin, M.B. (1998). Intrinzička motivacija kao cilj nastavnog procesa (Intrinsic motivation as the goal of the teaching process). Zbornik Instituta za pedagoška istraživanja, (pp. 168–184). Belgrade: Institute for Educational Research. In Serbian
- Zillmann, D. (1988). Cognition-excitation interdependencies in aggressive behavior. Aggressive Behavior 14(1), 51–64.

STUDENTI FIZIČKOG VASPITANJA I SPORTA KAO ŽRTVE I NASILNICI, NJIHOV AKADEMSKI SELF-KONCEPT I INTERPERSONALNO POVERENJE U PORODICI

Na uzorku od 484 studenata Fakulteta za fizičko vaspitanje i sport uzrasta od 19–23 godina iz Srbije i Bosne i Hercegovine, autori istražuju odnos između nasilja među studentima, njihovog self-koncepta i interpersonalnog poverenja u porodici. Istraživanje je ukazalo tri ključna nalaza. Prvo, student koji su na Olweusovom BVQ (Bully-Victim Questionnaire, 1993) odgovorili da su najčešće žrtve, imaju viši školski uspjeh od studenata koji su se izjasnili kao nasilnici. Drugo, kombinovanjem odnosa žrtava i nasilnika nađeno je da nasilništvo ima vezu sa nižim selfkonceptom i interpersonalnim poverenjem u porodici. Treći nalaz ostvaren je regresionom analizom, a ilustruje da sa uzrastom (godina studija i dob) opada victimization učenika te da akademski self-koncept, interpersonalno poverenje u porodici i pol negativno predodređuju nasilničko ponašanje učenika, a država, stručna sprema oca i majke, pozitvno predodređuju nasilništvo. Osim ovih nalaza, u radu je otvoreno niz novih istraživačkih pitanja, a na kraju su autori ukazali na ograničenja ove studije.

Ključne reči: fizičko vaspitanje i sport, nasilje, akademski self-koncept, samocenjenje, interpersonalno poverenje u porodici.