

# *Risk factors related to reported proactive violence and victimization among kosovar high school students*

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## **Abstract**

The aim of this research was to understand the risk factors associated with self-reported proactive violence and victimization among Kosovo high school students.

Data was obtained from 4709 high school students (15-16 years old) from Kosovo that participated in the European School Survey Project on Alcohol and Other Drugs (ESPAD). This study followed standardized methodology, sampling, administration and ethical requirements as those of the ESPAD survey which ensures comparability across European countries.

Results from this study support findings from other studies that males had a significantly higher average rank

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in both proactive violence and victimization categories when compared with females at ( $p < 0.001$ ). In addition, multivariable binary logistic regression showed that matching some factors were more strongly associated with perpetration of pro-active violence and victimization among Kosovo adolescents. The strongest association for proactive violence and victimization was with alcohol consumption over 30 days, followed by skipping school, and having a depressed mood. The weakest associations were observed for relationship with parents and gender. However, self-esteem scores showed there was not a statistically significant difference between pro-active violence and victimization. All of the above indicate an overlap of pro-active violence and victimization among adolescents, highlighting their role as both the perpetrator and the victim.

**Key words:** *proactive violence, victimization, self-esteem, depression, alcohol consumption*

## **Introduction**

Adolescence is a period of physical, psychological, and social maturing between childhood and adulthood<sup>1,2</sup>. During this period, adolescents go through different changes in their life, including biological and psychological changes<sup>3</sup>. Research evidence shows that, because of these changes, adolescents are at risk of manifesting mental and developmental health problems such as depression; anxiety and

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<sup>1</sup> Cameron JL, "Interrelationships between hormones, behaviors, and affect during adolescence," *Annals of the New York Academy of Sciences*, 1021 (2004): 134-42.

<sup>2</sup> Dahl RE, "Adolescent brain development: A period of vulnerabilities and opportunities," *Annals of New York Academia of Science*, 102 (2004): 1-22.

<sup>3</sup> Graham RA et al., "The existential model of perfectionism and depressive symptoms: a short four wave longitudinal study," *Journal of Consulting Psychology*, 57 (2011): 23-438.

stress; problems with family or friends; loneliness or rejection; thoughts of suicide, violent behaviors and suicidal behaviors<sup>4</sup>.

Violence victimization and perpetration have been identified as serious risk factors for impaired development in adolescents<sup>5</sup>. The research has emphasized the importance of distinction between two types of violent behaviors: proactive and reactive violent behaviors<sup>6</sup>. Proactive violence is defined as instrumental, offensive and “cold blooded”, neither provocative nor angry, whereas reactive violent behavior is defined as affective, defensive and “hot-blooded”<sup>7</sup>. Findings<sup>12</sup> show that around 53% of children who engage in some forms of violent behaviors engage in a proactive and reactive form of violence, whereas only 32% engage in a reactive form of violence, but not proactive. However, these two subtypes of violence tend to co-occur, with most children displaying the same degree of both reactive and proactive aggression<sup>8</sup>. Proactive violence may take the form of instrumental aggression, which aims to obtain an object or a privilege, or bullying, which is used to intimidate or dominate another person<sup>9</sup>. Additionally, findings from a study on child maltreatment and violence in youth show that perpetration and victimization are linked

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<sup>4</sup> World Health Organization, *Mental health: facing the challenges, building solutions: Report from the WHO European Ministerial Conference*, (Copenhagen: Regional Office for Europe, 2005): 83-89.

<sup>5</sup> Barnow S, Lucht M, and Freyberger HJ, “Correlates of aggressive and delinquent conduct problems in adolescence,” *Aggressive Behavior* 31, no.1 (2005):24-39.

<sup>6</sup> Dodge KA, “The structure and function of reactive and proactive aggression,” in *The Development and Treatment for Childhood Aggression 1991*, Pepler D and Rubin K (Hillsdale: Erlbaum, 1991), 201-218.

<sup>7</sup> Brengden M, Vitaro F, Tremblay RE and Lavoie F, “Reactive and pro-active aggression: Predictions to physical violence in different contexts and moderating effects of parental monitoring and caregiving behaviors,” *Journal of Abnormal Child Psychology* 29, no.4 (2001): 293-304.

<sup>8</sup> Hubbard JA, Romani LJ, McAuliffe MD and Morrow MT, “Reactive and proactive aggression in childhood and adolescence: Precursors, outcomes, processes, experiences and measurement,” *Journal of Personality* 78, no.1 (2010):96-118.

<sup>9</sup> Price KF and Dodge KA, “Reactive and proactive aggression in childhood: relations to peer status and social context dimensions,” *Journal of Abnormal Child Psychology*, 17(1989): 455-471.

to each other<sup>10</sup>. Young adolescents who are victims of abuse are at a greater risk for becoming abusive in adulthood<sup>11</sup>, and there is a link between victimization and later victimization<sup>12</sup>. Given the complexity of the topic, there are interrelated factors between individual, family, peer groups, school and community factors that are linked to violence perpetration and victimization in adolescence<sup>13</sup>. For example, in terms of individual risk factors, substance use, aggression, psychological condition, and tolerant attitudes toward violence were all related to perpetration of violence<sup>14</sup>. Family factors such as: low socio-economic status/poverty, poor parent-child relations, antisocial parents, harsh and inconsistent discipline, abusive parents, and neglect seem to be related to violence perpetration. Poor attitudes toward school, poor academic performance, weak social ties and antisocial peer seem to be related also to violence perpetration in adolescence. Community violence and neighborhood organizations are also related to perpetration of violence in adolescents<sup>15</sup>. In addition, the relationship between proactive violence and psychological constructs has been shown to also be rather multifaceted, especially in respect to depression and self-esteem.

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<sup>10</sup> Maas C, Herrenkohl T, and Sousa C, "Review of research on child maltreatment and violence in youth," *Trauma, Violence & Abuse*, 9(2008): 56-67.

<sup>11</sup> Fang X and Corso PS, "Child maltreatment, youth violence and intimate partner violence: Developmental relationship," *American Journal of Preventive Medicine* 33, no.4 (2007): 281-290.

<sup>12</sup> Desai S, Arias I, Thompson MP, and Basile KC, "Childhood victimization and subsequent adult re-victimization assessed in a nationally representative sample of women and men," *Violence and victims* 17, no.6 (2002): 639-653.

<sup>13</sup> Office of the Surgeon General (US); National Center for Injury Prevention and Control (US); National Institute of Mental Health (US); Center for Mental Health Services (US). Youth Violence: A Report of the Surgeon General. Rockville (MD): Office of the Surgeon General (US); 2001. Chapter 4 -- [http://www.ncbi.nlm.nih.gov/books/NBK44293/Risk Factors for Youth Violence](http://www.ncbi.nlm.nih.gov/books/NBK44293/Risk_Factors_for_Youth_Violence).

<sup>14</sup> Saner H and Ellickson P, "Concurrent risk factors for adolescent violence," *Journal of Adolescence Health*, 19(1996): 94-103.

<sup>15</sup> Dawkins MP, "Drug use and violent crime among adolescents," *Adolescence*, 33(1997): 395-405.

Some studies indicate that there is a modest association between depression and violence perpetration, whereas other reports show no significant relationship between violence and depression<sup>16</sup>. When the relationship between self-esteem and violence perpetration is analyzed, findings demonstrate that some of the adolescents who have engaged in violent behaviors show low levels of self-esteem in comparison with those not involved in violent behavioral problems<sup>17</sup>, whereas other studies, as conducted by Olweus<sup>18</sup> and Rigby & Slee<sup>19</sup>, report that violent adolescents obtain high scores on this construct<sup>20</sup>. Risky behaviors are also connected to possibilities of perpetration and victimization in adolescence; showing that substance abuse and alcohol use is both a result and a contributor to violence<sup>21</sup>. As well, parent-adolescent relationship was considered as important factor in later delinquent behavior and can serve as a mediator to reduce levels of delinquent behavior<sup>22</sup>. Overall, youth victimization has been associated with young adulthood depression, anger, hopelessness,

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<sup>16</sup> Van Hoof A, Raaijmakers QAW, van Beek Y, Hale III W, and Aleva L, "A multi - mediation model of the relations of bullying, victimization, identity and family with adolescent depressive symptoms," *Journal of Youth Adolescents*, 37( 2008): 772-782.

<sup>17</sup> Mynard H and Joseph,S, "Development of the multidimensional peer-victimization scale", *Aggressive Behavior*, 26 (2000): 169-178.

<sup>18</sup> Olweus, D, "Bully/victim problems in schools: Knowledge base and an effective intervention programme", *Irish Journal of Psychology*, 18 (1997): 170-190.

<sup>19</sup> Rigby K and Slee P, "Bullying among Australian school children: reported behavior and attitudes toward victims", *Journal of School Psychology*, 131 (1992) : 615-627.

<sup>20</sup> Estevez E, Jimenez TI, and Musitu G, "Violence and victimization at school in adolescence," in *School psychology: 21<sup>st</sup> century issues and challenges 2008*, ed. David H. Molina (Hauppauge, New York: Nova Science Publishers, 2008), 79-115.

<sup>21</sup> Russell PL, Nurius PS, Herting JR, Walsh E, and Thompson EA, "Violent victimization and Perpetration: Joint and Distinctive Implications for Adolescent Development," *Victim Offender* 5, no.4 (2010): 329-353.

<sup>22</sup> Bjornason T, Sigurdardottir TJ, and Thorlindson T, "Human agency, capable, guardians and structural constraints: A lifestyle approach of the study of violence victimization," *Journal of Youth and Adolescence* 28, no.2 (1999): 105-119.

higher levels of insecurity, low self-esteem, and anxiety<sup>23,24,25</sup>. Violence perpetration has also been linked with emotional distress<sup>26</sup> and anger<sup>27</sup>.

UNICEF has recognized violence as being a severe problem among schools in Kosovo<sup>28</sup>. Findings show that children have experienced violence as a constant presence in their schools, having witnessed or been a participant of different forms of violence (verbal, physical, emotional, or criminal abuse) at school. Further, corporal punishment is still perceived as an acceptable method of disciplinary action in schools and at home; this acceptance leads to rationalization of violence by teachers, parents and children. There are no studies conducted with Kosovo adolescents in understanding the risk factors related to perpetration and victimization. Taking into consideration the findings from the above-mentioned studies, the present study aims to examine the association between the risk factors of self-esteem, depression, alcohol use, academic achievements, and skipping classes with proactive violence perpetration and victimization among Kosovo adolescents. This is the first study which investigates the

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<sup>23</sup> Brown GW, Craig TKJ, Harris TO, and Handley RV, "Parental maltreatment and adulthood cohabiting partnerships: A life-course study of adult chronic depression," *Journal of Affective Disorders* 110, no.1 (2008):115-125.

<sup>24</sup> Gladstone GL, Parker GB, and Malhi GS, "Do bullied children become anxious and depressed adults? A cross-sectional investigation of the correlates of bullying and anxious depression," *Journal of Nervous & Mental Disease* 194, no.3 (2006): 201-209.

<sup>25</sup> Bond L, Carlin JB, Thomas L, Rubin K, and Patton G, "Does bullying cause emotional problems? A prospective study of young teenagers," *British Medical Journal*, 323 (2001): 480-484.

<sup>26</sup> Peled M and Morreti MM, "Rumination on anger and sadness in adolescence: Fueling of fury and deepening despair," *Journal of Clinical Child and Adolescent Psychology* 36, 1(2007): 66-75.

<sup>27</sup> Blake CS and Hamrin V, "Current approaches to the assessment and management of anger and aggression: A review," *Journal of Child and Adolescent Psychiatric Nursing* 20, no.4 (2007): 209-221.

<sup>28</sup> UNICEF, *Research into violence against children in schools in Kosovo*, (Prishtina: UNICEF, Kosovo, 2005), 1-64.

association of proactive violence and victimization and its correlates among Kosovo adolescents.

## ***Methods***

The analysis of this paper is based on the data collected for the 2011 European School Survey Project on Alcohol and other Drugs (ESPAD), which was carried out for the first time in Kosovo. Following the ESPAD requirements, the target population consists of students born in 1995, and, therefore, 18 years old at the time of the survey. Additionally, methodology, sampling and administration requirements of ESPAD survey are described in detail by Hibell, Guttormsson, Ahlström, Balakireva, Bjarnason, and Kokkevi<sup>29</sup>. Prior to the implementation of the study, permission from the Inter-Ministerial working group and Municipal Directorates of Education were requested. Out of 119 secondary schools operating in Kosovo, 42 schools were selected for the study. Stratified random sampling was used for school selection. The stratification was done for a selection of private versus public secondary schools and selection of classes. The schools were selected from the list of schools obtained from the Ministry of Education, Science and Technology of Kosovo. The study was conducted with 4,709 adolescents. In terms of gender distribution 55.1% (N=2,597) were female, 43.7% (N=2,057) were males and 1.2% (N=55) did not respond for the gender question. Mean age for males was 15.65 (SD=.68) and females 15.63 (SD=.69).

The questionnaire used in the 2011 ESPAD survey in Kosovo included questions related to alcohol, illicit drugs, cigarettes, and psychosocial aspect. For the purpose of this paper the items related to the Psychosocial Module of the questionnaire were used, including violence perpetration, violence victimization, self-esteem, depressive

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<sup>29</sup> Hibell, B et al., *The 2009 ESPAD Report Substance Use Among Students in 35 European Countries*, European Monitoring Centre for Drugs and Drug Addiction, (Stockholm: The Swedish Council for Information on Alcohol and Other Drugs, (2009): 29-58

mood, alcohol usage, academic achievement, skipping classes and relationship with parents.

The dependent variables examined in this study are: perpetration of proactive violence and victimization. Proactive violence perpetration was defined by computing the sum of scores for the following items: "During the last 12 months, how often have you a) participated in group teasing, b) participated in group bruising, c) participated in a group starting a fight with another group, d) start a fight with another individual." Options ranged from not at all, once or twice, 3-5 times, 6-9 times, 10-19 times, 20-39 times and 40 times and more. The responses were recoded as follows: never recoded as 0, 1-9 times recoded as 2, 10-19 times recoded as 3, and 20 to 39 times and 40 times or more coded as 4.

Victimization was defined by computing the sum of scores for the following items: "During the last 12 months, how often have you a) been individually teased by a whole group of people, b) been bruised by a whole group of people, c) been in a group fight that attacked by another group, d) had someone started a fight with you individually". Possible responses were: not at all, once or twice, 3-5 times, 6-9 times, 10-19 times, 20-39 times and 40 times and more. The responses were recoded as follows: never recoded as 0, 1-9 times recoded as 2, 10-19 times recoded as 3, and 20 to 39 times and 40 times more coded as 4.

The independent variables are the following: Self-esteem was assessed by Rosenberg Self-Esteem scale, assessing feelings of self-worth and self-acceptance<sup>30</sup>. Items were answered on a four-point scale ranging from "strongly agree" to "strongly disagree". Scores ranged from 10 to 40, with higher scores indicating higher self-esteem. Depressive mood was measured by a short 6-item version of the Center of Epidemiological Studies of Depression (CES-D) scale, which is not designed for clinical depression but, rather, assesses the levels

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<sup>30</sup> Rosenberg M. "Society and the adolescent self-image," accessed April 5, 2013, [http://www.education.uci.edu/childcare/pdf/instrumental\\_docs/Rosenberg%20Self-Esteem%20Scale%20ID.pdf](http://www.education.uci.edu/childcare/pdf/instrumental_docs/Rosenberg%20Self-Esteem%20Scale%20ID.pdf)



of depressive symptoms<sup>31</sup>. The following six-items were used: "During the last 7 days, how often: Have you lost your appetite, you did not want to eat?; Have you had difficulties in concentrating on what you want to do?; Have you felt depressed?; Have you felt that you put great effort and pressure to do things you had to do?; Have you felt sad?; Could not do your work (at school, at home, at work)?". The frequency was rated on a four-point scale running from "rarely" to "most of the time". Academic achievement was assessed with the question "Which of the following best describes your average grade of the last term?" The response were coded with 1 indicating the lower average grades, 2 indicating medium grades, and 3 indicating higher grades. The alcohol use was measured with the question "How many times have you consumed alcohol during the last 30 days?". Possible responses were: not at all, once or twice, 3-5 times, 6-9 times, 10-19 times, 20-39 times and 40 times and more. The responses were recoded as follows: never recoded as 0, 1-9 times recoded as 2, 10-19 times recoded as 3, and 20 to 39 times to 40 times recoded as 4. Skipping school was assessed with the question: "During the last 30 days, how many days you have missed one or more lessons because you skipped or cut classes?" Responses ranged from not at all to 7 days or more. Relationship with parents was assessed by computing the sum of scores for two questions: "How satisfied are you usually with your relationship with your father?" and "How satisfied are you usually with your relationship with your mother?" Response ranged from very satisfied to not at all satisfied. Responses were recoded as 5 = 1, 4 = 2, 3 = 3, 2 = 4 and 1 = 5, where higher scores indicate more satisfying/positive relationships with parents.

## **Results**

Prior to analysis, an exploratory data analysis was conducted to determine if the proactive victimization, depression, victimization and

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<sup>31</sup> Hibell, B et al., *The 2009 ESPAD Report Substance Use Among Students in 35 European Countries*. (2009): 173

self-esteem scores' distribution was normally distributed. Results for the Kolmogorov-Smirnov test for normality indicated that the all four scores' distribution did deviate significantly from a normal distribution, more specifically proactive violence scores ( $D = 0.496, p = 0.001$ ), victimization scores ( $D = 0.481, p = 0.001$ ), self-esteem scores ( $D = 0.108, p = 0.001$ ) and depression scores ( $D = 0.132, p = 0.001$ ). For further analysis of the variables of interest the Mann-Whitney U test was used to evaluate whether the medians on a test variable differ significantly between groups. The Mann Whitney U test resulted with higher average rank of 2412.4 for male proactive violence, as compared to the females' average rank of 2038.5, and the difference was significant,  $z = -16.36, p < 0.001$ . A similar pattern was found for victimization, where males had a higher average rank 2385.5 compared to females 2057.6, and the difference was significant,  $z = -13.3, p < 0.001$ . Females reported higher averages of depression average rank 2285.9 compared to males 1689.8,  $z = -16.2, p < 0.001$ . The Spearman rank correlation coefficient resulted with a negative correlation of proactive violent behavior [ $R_s(1, 4076) = -0.08, p < 0.001$ ] and of victimization [ $R_s(1, 4076) = -0.06, p < 0.001$ ] with self-esteem scores. Positive correlation was found for the scores of proactive violent behavior [ $R_s(1, 4076) = 0.12, p < 0.001$ ] and of victimization [ $R_s(1, 4076) = 0.15, p < 0.001$ ] with depression scores.

The average scores on victimization and proactive violence were analyzed by creating two artificial groups of students with average scores from 1 to 3 and those with 4 to 5<sup>32</sup>. Findings show that pupils with lower average grades showed a higher average rank of proactive violence 2225.2 compared to those pupils with higher average grades 2113.4,  $z = -4.76, p < 0.001$ . Similar findings were found also for the average scores of victimization where students with lower average reports higher average rank of victimization 2216.2 compared to those

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<sup>32</sup> Salmivalli C, Kaukiainen A, Kaistaniemi L, and Lagerspetz KM, "Self-evaluated self-esteem, peer evaluated self-esteem and defensive egotism as predictors of bullying situations," *Personality Sociological Psychological Bulletin*, 25 (1999): 1268-1278.

with higher average grades 2113.4,  $z=-4.04$ ,  $p<0.001$ . The mean comparison with One Way ANOVA of average scores of proactive violence resulted with a significant mean difference among students that had not used alcohol in the last 30 days as compared to those that had used alcohol in last 30 days ( $F(6, 4172) = 68.22$ ,  $p<0.001$ ). Regarding the average scores of proactive violence for reported number of drinks in last 30 days, adolescents that reported alcohol use reported higher averages of proactive violence as compared to adolescents that had not used alcohol at all. A similar pattern was found for the victimization scores where adolescents who had not reported a usage of alcohol in the last 30 days reported significant lower averages than those adolescents that had reported usage of alcohol in the last 30 days ( $F(6, 4159) = 66.73$ ,  $p<0.001$ ).

Table 1 presents findings from the multivariable binary logistic regression for the pro-active violence perpetration and victimization. It shows that certain factors appear to be associated with the perpetration of pro-active violence among Kosovo adolescents. Specifically, skipping school, alcohol consumption over the 30 days, depressive mood, relationship with parents and being female were all statistically significant at ( $p<0.01$ ) and grade average was statistically significant at ( $p<0.05$ ) for adolescents who had perpetrated pro-active violence as compared to those who did not (reference category). Only self-esteem scores showed not statistically significant relationship with perpetration of pro-active violence. Furthermore, results from Table 1 indicate that the strongest association for perpetration of proactive violence was missing school (OR=2.78, 95% CI: 2.01-3.83), followed by alcohol consumption over 30 days (OR=2.78, 95% CI: 2.01-3.83), grade average (OR=1.36, 95% CI: 1.04-1.78) and depressive mood (OR=1.12, 95% CI: 1.08-1.15), whereas association between relationship with parents (OR=0.78, 95% CI: 0.69-0.87) and gender were relatively weak (OR=0.17, 95% CI: 0.12-0.22).

Table 1: Multivariable binary logistic regression for the pro-active violence perpetration and victimization

	Pro-active violence OR (95%)	P- VALUE	Victimization OR (95%)	P- VALUE
<b>Gender</b>				
Male	R		R	
Female	0.171 (0.12-0.228)	0.001**	0.29 (0.23-0.38)	0.001**
<b>Grade average</b>				
Low grades	R		R	
Higher Grades	1.36 (1.04-1.78)	0.022*	1.24 (0.97-1.59)	0.083
<b>Skipping school</b>				
No	R		R	
Yes	2.78 (2.01-3.83)	0.001**	1.87 (1.37 - 2.57)	0.001**
Self-esteem	2.21 (1.62-3.00)	0.283	1.00 (1.08- 1.15)	0.916
Depressive mood	1.12 (1.08-1.15)	0.001**	1.18 (1.08-1.15)	0.001**
<b>Alcohol consumption</b>				
No	R		R	
Yes	2.21 (1.62-3.00)	0.001**	2.96 (2.23- 3.94)	0.001**
Relationship with parents	0.78 (0.69-0.87)	0.001**	0.81 (0.73 – 0.90)	0.01**

R-referent categories

Similarly, findings from the Table 1 show that numerous factors appear to be associated with the victimization experiences of Kosovo adolescents. Specifically, skipping school, alcohol consumption over the last 30 days, a depressive mood, relationship with parents and being female were all statistically significant at ( $p < 0.01$ ) for adolescents who had experienced victimization compared to those who did not (reference category). However, grade averages and self-esteem were not statistically significant.

The strongest association was noticed between alcohol consumption over 30 days (OR=2.96, 95%, CI: 2.23-3.94), followed by skipping school (OR=1.87, 95% CI: 1.37-2.57) and depressive mood (OR= 1.11, 95% CI: 1.08-1.15).The weakest associations were noticed

between relationship with parents (OR= 0.81, 95% CI: 0.73-0.90) and gender (OR= 0.29, 95% CI: 0.23-0.38).

Moreover, inspecting the results from table 1, we see that, being female decreases the odds for perpetrating proactive violence for 0.1 times and for experiencing victimization for 0.3 times compared to males. Furthermore, adolescents with higher grade average have higher odds for perpetrating proactive violence for 1.3 times compared to adolescents with lower average grades, but this was not consistent for victimization. Adolescents who consumed alcohol over 30 days have higher odd for perpetration of pro-active violence for 2.21 times compared to those who did not consume alcohol. Similarly, adolescents who had used alcohol over 30 days have almost 3 times higher odds for being a victim of violence as compared to those who did not consume alcohol. Adolescents who had a satisfactory relationship with parents have lower odds for perpetrating pro-active violence for 0.71 time, and lower odds for victimization for 0.81 times. One unit increase in the depressive mood scale increases the odds for perpetration of pro-active violence for 1.10 times, and 1.18 times for victimization.

## ***Discussion***

Violence victimization and perpetration have been identified as serious risk factors for impaired development in adolescents<sup>33</sup>. The present study examined the association between several risk factors such as: self- esteem, depression, alcohol use, academic achievements, skipping classes with proactive violence perpetration and victimization among Kosovo adolescents. The analysis of this paper was based on the data collected for the 2011 European School Survey

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<sup>33</sup> Barnow S, Lucht M, and Freyberger HJ, "Correlates of aggressive and delinquent conduct problems in adolescence," *Aggressive Behavior* 31, no.1 (2005):24-39.

Project on Alcohol and other Drugs (ESPAD), which was carried out for the first time in Kosovo<sup>34</sup>.

Results from this study support findings from other studies<sup>35</sup> that males had a higher average rank in both proactive violence and victimization categories when compared with females, and the difference was significant ( $p < 0.001$ ). In addition, multivariable binary logistic regression showed that matching factors appear to be associated with perpetration of pro-active violence and victimization among Kosovo adolescents. The strongest association for proactive violence and victimization was between alcohol consumption over 30 days, followed by skipping school, and depressive mood. The weakest associations were noticed between relationship with parents and gender. However, self-esteem scores showed there was not a statistically significant difference between pro-active violence and victimization. All of the above point to an overlap of pro-active violence and victimization among adolescents<sup>36</sup>, highlighting their role as both perpetrator and the victim<sup>37</sup>.

Implying that schools, personnel and psychologist now have a more challenging situation due to interrelated factors regarding this issue, particularly since social norms supporting violence are used as feedback for adolescents<sup>38</sup>. However by addressing victims of violence prior to their own participation in violent aggression, an

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<sup>34</sup> Hibell, B et al., The 2009 ESPAD Report Substance Use Among Students in 35 European Countries, (2009):172-180

<sup>35</sup> Cairns RB, Cairns BD, NeckermanHJ, Ferguson LL, and Garipey JL, "Growth and aggression: 1. Childhood to early adolescence," *Developmental Psychology* 25, no.2 (1989):320-330.

<sup>36</sup> Pellegrini AD, Bartini M, Brooks F, "School bullies, victims, and aggressive victims: Factors relating to group affiliation and victimization in early adolescence," *J Educ Psychol* 91, no.2 (1999):216-224.

<sup>37</sup> Singer S, "Victims of serious violence and their criminal behavior: Subcultural theory and beyond", *Victims Violence* 1, no.1 (1986):61-70.

<sup>38</sup> UNICEF, *Research into violence against children in schools in Kosovo*, (Prishtina: UNICEF, Kosovo, 2005), 1-64.

opportunity is presented to break the cycle of violence as both victims and perpetrators<sup>39</sup>.

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Brown GW, Craig TKJ, Harris TO, and Handley RV, "Parental maltreatment and adulthood cohabiting partnerships: A life-course study of adult chronic depression," *Journal of Affective Disorders* 110, no.1 (2008):115-125.

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<sup>39</sup> Mario J. Aceves, and Jeffrey T. Cookston, "Violent Victimization, Aggression, and Parent-Adolescent Relations: Quality Parenting as a Buffer for Violently Victimized Youth," *J Youth Adolescence*, 36(2007): 635-647.

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