Archives of Psychiatry and Psychotherapy, 2019; 2: 48–55

DOI: 10.12740/APP/103658

School bullying and symptoms of depression

Eglantina Dervishi, Marjola Lala, Silva Ibrahimi

Summary

The purpose of the present study is to explore the relationship between bullying and depressive symptoms in adolescents.

Methods: The research included 284 teenagers, of whom 145 (51.1%) were females and 139 (48.9%) males, aged between 13 and 18 years with an average age of (M = 15.5) years and a Standard Deviance 1.2 (SD=1.2) The data were collected through the use of Children's Depression Inventory (CDI, Kovacs, 1978) and the Reciprocal Relationship Assessment Questionnaire (PRQ) (Rigby & Slee, 1994) and further analysed with the SPSS. 18 package. As the distribtution was not normal, Spearman's rho and analysis of frequencies were used to test the links between bullying behaviors and depression.

The results revealed a significant statistical relationship between the frequency of adolescent victimization and their depressive symptoms (Sig 2 tailed = 0.00 <0.05), so children who were more frequently prey to bullying behaviors experienced more depressive symptoms (0.3 < r = 0.485 <0.6). The relationship between victimizing behaviors and depressive symptoms in adolescents seems to be unaffected by such variables as gender, age, or academic performance.The findings revealed that adolescents assuming either of the role ie the victim's or the aggressor's were prone to developing depressive symptoms.

Conclusions: Being either a victim or bully seems to increase the likehood of beng affected by depression. In this aspect, variables such as age, gender and academic achievement seem to have no significant effect on the bullying-depression binomial function.

bullying, depression, adolescents, victims

INTRODUCTION

Bullying is perceived as a very worrying phenomena within school ages [1]. In literature, bullying is defined as a deliberate behavior of a person aiming at belittling or frustrating another one [2].

According to to this definition, there emerge two profiles of persons, ie the *aggressor* and the *victim*. Both are involved in this dynamic interaction which certainly has its consequences. The victim of bullying behavior is seen as the more vulnerable one and one in need of support [3].The focus of intervention of mental health experts gives priority to the victim's profile. As a result of experiencing various forms of aggression, these people may easily develop mental health issues,especially depression [4]. Depression is seen as such a form of reaction that drives people to lose hope and confidence in themselves and their their ability to successfully deal with the situation they are struggling to cope with. Feelings of helplessness, fear and

Eglantina Dervishi[1], **Marjola Lala**[1], **Silva Ibrahimi**[2] [1]Department of Psychology and Pedagogy, Faculty of Social Sciences, University of Tirana, Tirana, Albania; [2] Departament of Psychology "Albanian University", Tirana, Albania
Correspondence address: egladervishi@gmail.com

loneliness can push these individuals towards developing depressed mood.It seems that the profile of the aggressor, on the other hand, is more related to the sense of power and domination. The aggressor surely experiences significant anger and translates it into aggression against his victim. More importantly,they tend to take pleasure in humiliating in exercising control over other pople. But the question is:can they also experience depression? When we raise this question, we need to clarify the fact that we do not assume that depression comes as a result of being a bully. Bullying behaviors are simply a way how the depressive symptoms experienced by the bully are channelled into the external aggression. It is already a common knowledge that depressive people usually react in two ways: by orienting aggression towards themselves which leads to self-destruction or by orienting aggression externally towards others.

Aggressors and victims of bullying behaviors are at high risk of developing depressive symptoms as a result of behavioral problems [5]. They both need a professional support and treatment so as not to risk suffering from depression or other mental halth problems. Studies suggest a link between bullying behaviors and depression in adolescents [6]. Victims of bullying tend to exhibit mental health problems even during adulthood [7].

Interestingly,aggressors are also reported to exhibit similar mental health problems [8]. Adolecent victims of bullying behaviors and comorbid depression with a history of attempted suicide are a very significant problem [9]. What seems to unite victims, aggressors and aggressors/victims are some common features associated with feelings of boredom, lack of hope, guilt, stress, and the sense of external pressure.This presence of depressive symptoms is a risk factor for suicide and mental health problems that can undermine the emotional stability of teenagers and lead to unpredictable consequences in the long-term perspektive [10]. Engaging in bullying behaviors has its impact on nearly all aspects of adolescent life, such as academic performance, peer relationships, self-concept and work. Adolescents who are passive observers and who may somehow be considered as passive participants in aggression towards their pers are at a high risk of engaging in problematic behaviors, such as alcohol abuse,developing depression, anxiety and sucidial ideation [11].

METHOD

Through a descriptive correlative study, we aimed to explore the relationship between bullying and depressive symptoms in adolescents. Data were collected from two schools in the city of Tirana.

Hypothesis:

- adolescents who exhibit more victimizing behaviors experience more depressive symptoms
- adolescents who exhibit more non-inclusive behaviors experience fewer depressive symptoms
- adolescents who exhibit more aggressive behaviors experience more depressive symptoms

Procedure: Research protocol was approved by the Tirana Education Directorate. School authorities were informed about the goals of the study. Participants were anonymous and voluntary,and patental consent was collected for all participants. The study was conducted in April-June 2018 and the questionnaire administration time was 25 minutes.

Subjects: The sample included 300 randomly selected adoleshent students of grades 7-11. Only 284 of the distributed questionnaire sets were valid. The rest lacked data and two subjects withdrew without giving any reason. Of the 284 teenagers, 145 (51.1%) were girls and 139 (48.9%) were boys. Their mean age was M=15,5 years with a standard deviacion SD=1,2. 12 of the adolescents were 13 years old (4,2%),54 (19%)were 14 years old,75 (26,4%) were 15 years old,69 (24,3%)were 16 years old,69 (24,3 %) were 17 years old and 5(1,8%) were 18 years old.

Instruments: A separate session was devoted to collection of demographic data such as age, gender, academic achievements (grade point average in the last academic year). All participants were asked to komplete the following two questionnaires: the Children's Depression Inventory (CDI), an instrument that evaluates depressive symptoms in children and adolescents between 13 and 18 years [12]. The questionnaire consists

of 27 statements which include information on five main areas: negative state, lack of affect, inability to experience pleasure (anhedonia), negative self-esteem. Data is collected through a Likert scale with three response options ranging from: 0 = Rarely, 1 = Often, 2 = Always. The Peer Relationship Questionnaire (PRQ)was the second instrument used in the study [13]. This instrument is made up of 20 statements aimed at identifying the roles that teenagers play in a harassment situation, namely: the aggressor (who is actively involved in bullying), the victim (the subject towards whom-bullying is directed), the defender (who actively seeks to oppose harassment and / or to comfort the one who was attacked) and the spektator(sitting around without interference).Responses are recorded on Likert scale with four response options: Never = 1, Sometimes = 2, Often = 3, Very often = 4. Internal validity measures of the CDI and the PRQ are very good (α = 0.895 and α = 0.874 respectively).

Statistical analysis: Data analysis was performed with the SPSS 18 statistical program. Due to non normal distribution of data,non-parametric tests were used. The Mann-Whitney U-test was used to analyze whether there was gender difference in the overall level of depressive symptoms.Spearman's rho coefficient was used to measure the correlation between depression and harassment indicators whereas frequency analysis was conducted to etamine the relevance of factors such as age, gender, and academic achievement that were hypothesized to affect the harassment behavior and depressive symptoms in adolescents.

RESULTS

The study demonstrates that the surveyed adolescents have a median value score of 1.41 of depressive symptoms, thus generally exhibitng mild depressive symptoms.There are adolescents who do not show depressive symptoms (minimum = 1), but there are also others who reveal "apparent" depressive symptoms (maximum = 2.54). The overall levels of depressive symptoms by gender are 1.41 for girls and 1.42 for boys.

The Mann-Whitney U test was used to analyze whether there are gender differences in the overall level of depressive symptoms. Asymptotic (2-tailed) significance p= 0.641> 0.05 indicates no significant differences in the overall level of depressive symptoms between girls and boys.

Table 1. Correlations between age and depressive symptomatology

Correlations					
	Gender	Age	**Depressive Symptoms**		
Spearman's rho	Female	Age	Correlation Coefficient	1,000	-.**163**
		Depressive Symptoms	Sig. (2-tailed)	.	-.**050**
	Male	Age	N	145	145
		Depressive Symptoms	Correlation Coefficient	-.163	1.-000
			Sig. (2-tailed)	-.050	.
			N	145	145
			Correlation Coefficient	1-.000	-.35
			Sig. (2-tailed)	.	-.112
			N	139	139
			Correlation Coefficient	-.135	1,000
			Sig. (2-tailed)	-.112	.
			N	139	139

To analyze whether there is a statistically significant relationship between adolescents' age and the overall level of depressive symptoms,the Spearman's rho test was used.

The results in Table 2 reveal asymptotic (2-tailed)significance p=0.05,thus indicating a significant correlation between age and depressive symptoms. As the age increases the depressive symptoms tend to increase as well.The average spore on "Emotional Problems"in girls is 1.37 and boys it s 1.34-which means that the difference between girls and boys in this respekt is small.

The average score on "Functional Problems" is 1.44 in girls while in boys it is 1.5. It seems that compared to girls,boys have more symptoms related to functional problems, but again the difference is ratler small.

The Mann-Whitney U test was used to analize whether tender differences existed in the overall leve of emotional problems.Asymptotic (2-tailed) significance p=0.038 <0.05. Mean rank ranges are higher for girls (+ 152.38) compared to boys (132.3).

Therefore, girls are more likely than boys to experience symptoms related to emotional problems. It seems that the average score on "Anhedonia" is 1.49 for girls and 1.43 for boys, which means that the difference between girls and boys in the respekt is very small.The average spore on "Ineffectiveness" is 1.47 in girls while in boys it is 1.5. It seems that compared to girls, boys tend to have more symptoms associated with ineffectiveness, but differences between both sexes are ratler small. The average score on"Low Self-Esteem" is 1.28 for girls and 1.31 for boys. The average score on "Negative State" is 1.35 for girls and 1.29 for boys, suggesting a negligent diference. The average score on "Interpersonal Issues"is 1.42 for girls and 1.5 for boys,therefore implying a non-significant diference. To analyze whether there are any gender differences in the gjeneral leve of depression subscales, the Mann-Whitney U test was used. Asymptotic-Sig (2-tailed) significance is p= 0.030 <0.05. Mean ranks are higher for girls (+ 152.78) compared to boys (131.78), thus suggesting that girls are more likely to experience symptoms related to Anhedonia. Asymptotic Sig.(2-tailed) significance is p= 0.012 <0.05. Mean ranks are higher for girls (-153.78) compared to boys (130.73), meaning that girls are more likely to experience more symptoms related to negative state.

Table 2. Victimizing behaviors and depressive symptomatology

Correlations				
		Victimizing behavior scale	Depressive Symptoms	
Spearman's rho	Victimization behavior scale	Correlation Coefficient	1-.000	-.484**
		Sig. (2-tailed)	.	-.000
		N	284	284
	Depressive Symptoms	Correlation Coefficient	-.484**	1-.000
		Sig. (2-tailed)	-.000	.
		N	284	284
**. Correlation is significant at 0.01 (2-tailed).				

Our results revealed a significant relationship between the frequency of adoleshent victimization and depressive symptoms (Sig 2-tailed = 0.00 <0.05). The relationship between these two variables is positive and of moderate strength (0.3 <r = 0.485 <0.6). The more prone teenagers are to bullying behaviors, the more depressive symptoms they will experience. The following analysis once again investigates the relationship between victimizing behaviors and depressive symptoms in adolescents and how it is moderated by gender, age and academic performance.

Table 3. Victimizing behavior and depressive symptoms according to gender,age and academic performance

Correlations				
Control Variables			Victimizing behavior scale	Depressive Symptoms
Grade point average, Age & Gender	Victimizing behavior scale	Correlation	1-.000	-.603

		Significance (2-tailed)	.	-.000
		df	0	279
	Depressive Symptoms	Correlation	-.603	1-.000
		Significance (2-tailed)	-.000	.
		df	**279**	**0**

Even when the effect of gender, age and academic performance is controlled, there is still a significant (Sig=0.00<0.05) pozitive relationship of moderate strength (r=0.6) between victimizing behavior and depressive symptoms. Regardless of their tender, age or performance, the teenagers who exhibit more victimizing and bullying behaviors tend to report more depressive symptoms.

Table 4. Prosocial behavior and depressive symptoms

Correlations				
			Prosocial behavior scale	Depressive Symptoms
Spearman's rho	Prosocial behavior scale	Correlation Coefficient	1-000	-214**
		Sig. (2-tailed)	.	-.000
		N	284	284
	Depressive Symptoms	Correlation Coefficient	-214**	1-.000
		Sig. (2-tailed)	-000	.
		N	284	284
****Correlation is significant at 0.01 (2-tailed).**				

The results reveal a significant relationship (Sig. (2-tailed) = 0.00 < 0.05) between the frequency of prosocial behaviors and their depressive symptoms in our sample. The correlation between these two variables is negative (r = – 0.214) and of poor strength (r = 0.214 <0.3). This means that the more prosocial behavior adolescents display, the fewer depressive symptoms they will experience. The following analysis explores the relationship between prosocial behaviors and depressive symptoms in adolescents as affected by tender,age and academic performance.

Table 5. Prosocial behavior and depression according to gender,age and academic performance

Correlations				
Control Variables			Prosocial Scale	Depressive Symptoms
		Correlation	1-,000	-.193
Grade point average, Age & Gender	Prosocial Scale	Significance (2-tailed)	.	.001
		df	0	279
	Depressive Symptoms	Correlation	-.193	1.000
		Significance (2-tailed)	.001	.
		df	**279**	**0**

It should be noted that even when the effect of gender, age and academic performance is controlled, there is a significant (Sig = 0.01 < 0.05) though weak (r = 0.193 < 0.3) negative relationship between prosocial behavior and depressive symptoms.

We can argue therefore,that regardless of age,sex or academic performance,teenagers who exhibit more prosocial behaviors tend to exhibit fener depressive symptoms.

Table 6. Bullying behavior and depressive symptoms

Correlations				
			Bullying behavior scale	Depressive Symptoms
Spearman's rho	Bullying behavior scale	Correlation Coefficient	1,000	,295**
		Sig. (2-tailed)	.	,000
		N	284	284
	Depressive Symptoms	Correlation Coefficient	,295**	1,000
		Sig. (2-tailed)	,000	.
		N	284	284
**** Correlation is significant at 0.01 (2-tailed)**				

Data show that there is a significant (Sig. (2– tailed) = 0.00 < 0.05), though weak (r = 0 – 295 < 0.3) relationship between the frequency of adolescent bullying behaviors and their depressive symptoms. The more bullying behaviors adolescents display, the more depressive symptoms they will experience. The following analysis evaluates the relationship between bullying behaviors and depressive symptoms of adolescents as it is moderated by tender, age and academic performance.

Table 7. Bullying behavior and depressive symptoms according to tender, age and academic performance

Correlations				
Control Variables			Bullism Scale	Depressive Symptoms
Grade point average, Age & Gender	Bullism Scale	Correlation	1,000	.241
		Significance (2-tailed)	.	.000
		df	0	279
	Depressive Symptoms	Correlation	.241	1.000
		Significance (2-tailed)	-000	.
		df	**279**	**0**

It is morth noting that even when the effects of gender, age and academic performance are controlled, there is a significant (Sig. = 0.00 < 0.05) though weak (r = 0.241 < 0.3) negative relationship between bullying behaviors and depressive symptoms. So, regardless of tender, age or academic performance, students who exhibit more bullying behaviors tend to report more depressive symptoms.

DISCUSSIONS

The present study examined the relationship between bullying behaviors and depressive symptoms in adolescents.The tendency to show depressive symptoms is similiar in men and women. So both genders are equally likely to be affected by depressive symptoms if they are exposed to certain risk factors [14].

However, there is a tendency for women to experience more emotional problems, which are linked to the overall negative state, anhedonia and negative self-esteem, while men serm to exhibit more functional impairment in the form of interpersonal problems or lack of effectiveness [15]. What is noteworth is the fact that depressive symptoms tend to increase with adolescent age,as evidenced also by research [17].

What we have oserved is is that regardless of gender, age or academic performance, teenagers who are prone to bullying behaviors have a growing tendency to experience depressive symptoms, a finding which is also apparent in

other studies [17, 18]. Furthermore, victims of bullying behaviors exhibit more symptoms such as anhedonia, lack of effectiveness, low self-esteem and interpersonal issues. Compared to girls, boys tend to engage in more bullying behaviors and are also more likely to display victimizing behaviors. It seems that in the repertoire of bullying behaviors, whether in the role of the victim or the aggressor, boys are more represented than girls. As they age, adolescents display fener victimizing behaviors and engage in more prosocial ones.

Teenagers involved in aggressive behaviors toward others, whether verbal, physical or emotional, tend to develop depressive symptoms, which is also reported in elsewhere [19, 20]. Meanwhile,research [21, 22] suggest that bullies do not only exhibit more depressive symptoms in adoleshence, but also in adulthood, and are more predisposed to having depressive or other mental health problems [23, 24].

Engaging adolescents in prosocial behavior seems to protect them from experiencing depressive symptoms, be conducive to good mental health and higher academic achievement [25, 26, 27]. The prezent study shows that adolescents exhibiting prosocial behavior experience a lesser presence of depressive symptoms compared with victims and aggressors [28].

CONCLUSIONS

Depressive symptoms are seen as a permanent accomplice of bullying in adolescents. Asuming the roles of either the victim or the aggressor seems to constitute a significant risk factor for developing mental health issues related to depression and suicide. There is no difference in whether you are a male or female in the manifestation of depressive symptoms,but it is noted that among men the tendency to engage in bullying behaviors is higher, while the frequency of girls involved in pro-social behavior increases. What is noticed is that in the case of both sexes there is a difference in the dynamics of bullying behaviors with age.

Teenage bullies and their victims are more likely to have problems with depressive symptoms, which, if not timely evidenced can lead to mental health matters that become persistent in adulthood.

Pro-social behaviors seem conducive to general well-being and serves as a good shield for for depression and other mental health issues.

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