

PEER VICTIMIZATION, DEPRESSIVE SYMPTOMS AND ACADEMIC FUNCTIONING IN SCHOOL CHILDREN

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ABSTRACT

Objective: To determine the prevalence of peer victimization in school children, its relationship with depressive symptoms and academic functioning along with demographic differences (gender and grade) among study variables.

Study Design: Cross-sectional study design.

Place and Duration of Study: This study was carried out at various private/public schools in Rawalpindi from Sep to Oct 2014.

Material and Methods: Data was collected by convenient sampling technique. Victimization scale (Orpinas, 1993) and center for epidemiological studies depression scale for children (CES-DC) (Weissman *et al.* 1980) were used for data collection. Sample consisted of 330 school children (boys = 228 and girls = 102) of grade 6th to 10th from various private/public schools. The age range of participants was between 10 to 15 years. Psychometric properties of scales indicted moderate to good reliability.

Results: Results showed that prevalence of peer victimization was 33% and there was significant positive correlation between peer victimization and depression, whereas correlation between peer victimization and academic functioning was non-significant. Further results indicated that male children were more vulnerable to get victimized and develop depressive symptoms than female children whereas academic functioning doesn't differ significantly across gender. Children in junior grades have more depressive symptoms than children in senior grades whereas peer victimization and academic functioning do not differ significantly across grades.

Conclusion: On the basis of study results, it was concluded that peer victimization increased the level of depressive symptoms, so interventions were required to reduce these harmful effects.

Keywords: Academic functioning, Depression, Peer victimization.

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INTRODUCTION

School going children are exposed to a variety of academic and social experiences on daily basis and peer victimization in school, is an unfortunately common experience for many of them. It is phenomena in which children are target of the aggressive behavior of other children including physical and verbal harassment and it plays important role in student's adjustment across variety of domains (psychological, academic and social)^{1,2}. Being victimized has negative consequences not only for victims but for bullies as well but victims of bullying behavior experience severe physical and psychological problems^{3,4}. As peer victimization is defined in a

number of ways by different authors, so it is difficult to identify its exact prevalence rates. One study showed that prevalence of peer victimization is 24% in English pupil and 8% in German children every week. In another study, prevalence of it in 7th and 8th grade children was studied and it was found 24%^{5,6}. Previous research has consistently reported that, peer victimization has profound effect on children's well being and a risk factor for a number of psychological difficulties, including problem behavior, anxiety, low selfesteem, poor school achievement, depression and even suicide^{7-9,4}. Among the various types of internalizing problems, peer victimization is most strongly associated with depressive symptoms in childhood, and later in adole scence depression^{1,10,11}. A study on 721 rural to urban migrant children in Beijing, China indicated that peer victimization was

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positively associated with depressive symptoms⁷. In a six month cohort study, 1118 children aged 9 to 11 were studied and results revealed that victims of bullying were at greater risk to develop psychological symptoms³. According to Rudolph Troop Gordon, Hessel, and Schmidt, peer victimization was extremely stressful in elementary school children. Further he suggested that early and extended victimization lead to depressive symptoms and aggressive behavior. Similarly in adolescent, it increased the social anxiety and depression^{6,12}. Since these victims exhibited inferior self concept in comparison to bullies, so it resulted in depression and psychosocial maladjustment suggested by many cross-sectional and longitudinal studies¹³⁻¹⁵. It was studied that this victimization increases the risk for adjustment difficulties which in turn negatively affect students' academic achievement^{16,17}. A longitudinal study has been conducted to see relations among peer victimization, depression, and academic achievement in 945 Chinese primary school students. The results indicated that peer victimization had both direct and indirect effects on later depression and academic achievement¹⁸. David, Lei and Joann studied 296 children in China and findings suggested that peer victimization was strongly linked with poor academic grades and disturbed behaviours¹⁹. Results from several studies have indicated that peer victimization also predicts depression and later academic difficulties among western children in China^{20,8}. In addition, several studies have been conducted to see the association of peer victimization with various demographic variables. Literature regarding gender suggested mixed findings in past. According to one study, in male gender psychiatric disturbances were more correlated to bullying as compared to females. Female children are more vulnerable to get victimized as compared to male children^{21,5}. Another study on school based violence and bullying suggested that male children are more likely to be both perpetrators and victims²². Rueger and Jenkins highlighted that there are no gender differences in peer victimization and its effects²³. Further it was

suggested that children in junior grades were more often victimized than children in senior grades. A correlational study was conducted in Gujrat district of Pakistan's Punjab province to find bullying victimization as a predictor of physical and psychological health problems among school going children with hearing impairment. Findings of this research indicate a significant positive relationship between the four components of bullying and health problems. Further more boys experienced more physical victimization than girls, but there was no significant difference between girls and boys in social manipulation²⁴. Violence, aggression and behavioral problems in youth have been repeatedly recorded and addressed by several researchers in Pakistan in a variety of contexts, yet a few studies had explored the phenomenon of school bullying^{25,26}. In a recent investigation, it is found that male gender and public school set up are important contributors of bullying, victimization and fighting behavior²⁷. In conclusion, it is clear from past literature that peer victimization is associated with depression and academic functioning. Few researches from Pakistan also highlight the health problems related to victimization, but its psychological consequences and effects on children's academic performance require further exploration. Therefore, the current study was designed to determine the prevalence of peer victimization in school children, its relationship with depressive symptoms and academic functioning. To see the various demographic differences (gender and grade) among study variables was also the purpose of the study.

MATERIAL AND METHODS

The cross-sectional study design was used and data was collected by convenient non-probability sampling technique from various private and public schools in Rawalpindi from September to October 2014. The sample consisted of 330 school children (boys=228 and girls=102) of grade 6th to 10th from various private and public schools. It was calculated by using the WHO calculator with 95% confidence level. The age range of participants was between 10 to 15 years.

One hundred and thirteen children were from private schools and 217 were from public schools. Victimization scale, center for epidemiological studies depression scale for children (CES-DC) and demographic sheet were used to measure the study variables. Academic functioning was assessed by using school grades of children. Victimization scale is a 10 item likert scale to assess the frequency of peer victimization values ranging from 0 to 60. Higher scores indicate a greater frequency of victimization. Its Cronbach's alpha is 0.85²⁸. The center for epidemiological studies depression scale for children (CES-DC) is a 20 item self report depression inventory. It ranges from 0 to 60. Each response to an item is scored as follows: 0 = "Not At All", 1 = "A Little", 2 = "Some", 3 = "A Lot". However, items 4, 8, 12, 16 are scored in the opposite order: 3 = "Not At All", 2 = "A Little", 1 = "Some", 0 = "A Lot". Higher CES-DC scores indicate increasing levels of depression. 15 is cutoff score suggesting depressive symptoms²⁹. School children were approached in different schools of Rawalpindi and Islamabad after getting inform consent of school authorities. Instructions were given to the children for reporting responses. Demographic form (i.e. age, grade, gender, school and school system), and other two instruments were filled by children in group. Descriptive and inferential statistics were used to analyze the data by using statistical package for social science (SPSS IBM Version 20). Sampling distribution tends to normal by central limit theorem. Descriptive statistics (i.e. means, standard deviations, and frequencies) and psychometric properties (i.e. reliability coefficients of instruments) were calculated. Inferential statistics (i.e. bivariate correlation, t-test) was used to measure correlation and mean differences across demographic variables. A p -values ≤ 0.05 considered as a significant value.

RESULTS

Results showed that among 330 school children, 228 (69%) were boys and 102 (31%) were girls with age range from 10 years to 15 years. They are students of grade 6th to 10th. Psychometric properties of scales indicted

moderate to good reliability (Alpha coefficients for victimization scale=0.84 and for CES-DC=0.78). Further results revealed that the prevalence rate of peer victimization is 33% among entire sample, 29% in male children and 22% in female children (table-I & II). Table-I shows the descriptive analysis (mean and standard deviation) of study variables and alpha coefficients of various scales used in this study. The reliabilities of scales are satisfactory. Table-II shows prevalence of peer victimization that is high among male children as compared to female children. Table-III shows the correlation between peer victimization, depression and academic functioning. Results revealed that Peer victimization and depression are positively correlated with each other. Table-IV indicates the mean differences of males and females children on peer victimization, depression and academic functioning. Results indicate that male children were more vulnerable to get victimized and develop depressive symptoms than female children whereas across academic functioning females score significantly higher than males. Cohen's d was also calculated which indicates effect size among males and females. Cohen's d of peer victimization, depression and academic functioning ranges between large to medium effect size. Table-V shows the mean differences of children in senior 154 (46.7%) and junior 176 (53.3%) grades on peer victimization, depression and academic functioning. Results indicate that children in junior grades have more depressive symptoms than children in senior grade whereas peer victimization and academic functioning do not differ significantly across grade. Cohen's d was also calculated which indicates effect size among senior and juniors. Cohen's d of peer victimization and depression ranges between small to medium effect size.

DISCUSSION

The literature on bullying and victimization suggested that it is a serious problem in schools and it is associated with a variety of negative outcomes for the victim and youth who experienced more frequent peer victimization in early years

may have a lasting impact on them in later life³⁰⁻³². Present research has been conducted to study this highly important phenomenon in Pakistani culture. This study confirmed the some of the trends found in researches done in past and highlighted some new findings according to our culture. Previous researches reported high prevalence rate of peer victimization and in present sample this rate is in line with previous

concept to bullies which later converted into depression and psychosocial maladjustment. Past literature also revealed that this victimization disturbs the academics of the students^{8,16,19}. But this relation ship has not been supported by the present data. It may be because in our culture children are more resilient as compared to children in western societies, so despite of victimization and depressive symptoms they

Table-I: Mean, standard deviation and alpha coefficient of peer victimization, depression and academic functioning (N=330).

Variables	Mean	SD	α
Peer-Victimization	6.26	8.35	0.84
Depression	18.71	9.12	0.78
Academic Functioning	67.19	14.98	-

Table-II: Prevalence of peer victimization (N=330).

Symptoms	f	Percentage (%)
Peer victimization	109	33
Victimization among males	86	29
Victimization among females	23	22

Table-III: Pearson correlation between peer victimization, depression and academic functioning (N=330).

Variables	1	2	3
Peer Victimization	-	0.31**	0.01
Depression		-	-0.07
Academic Functioning			-

**= p -value \leq 0.01

Table-IV: Mean differences across gender on peer victimization, depression and academic functioning (N=330).

Variables	Males (n=228)		Females (n=102)		t (328)	p -value	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
PV	7.18	9.26	4.20	5.47	3.01	0.002	1.03	4.91	0.39
Dep.	20.03	8.76	15.80	9.28	3.96	<0.001	2.13	6.32	0.62
Aca Funt.	63.17	12.04	76.19	16.93	7.95	<0.001	-16.23	-9.8	0.88

Note: PV= Peer Victimization; Dep= Depression; Aca Funt= Academic functioning.

Table-V: Mean differences across grades on peer victimization, depression and academic functioning (N=330).

Variables	Senior (n=154)		Junior (n=176)		t (328)	p -value	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
PV	6.05	7.53	6.44	9.08	0.42	0.66	-2.21	1.42	0.04
Dep	15.74	7.76	21.32	9.44	5.78	<0.001	-7.47	-3.67	0.64
Aca Funt	66.25	16.12	68.02	13.88	1.07	0.28	-5.02	1.48	0.11

Note: PV=Peer Victimization; Dep=Depression; Aca Funt=Academic functioning.

findings in literature^{5,6,33}. Victims of bullying often suffer from long term psychological problems and academic difficulties^{34,18} and present study confirmed the strong association between peer victimization and depressive symptoms as previously reported^{6,7,14}. It is because these victims exhibited inferior self

carry on with average school grades. It can be due to limitation of present study that the grades were measured by self reporting of students, so they may not represent their actual percentages. It must be verified by other resources as well i.e. parents or teacher ratings could be incorporated. Furthermore, these effects of bullying on children

vary according to gender and grade. Literature regarding gender suggested mixed findings in past. In one study, it is reported that in male gender psychiatric disturbances were more correlated to bullying²¹. But females are more vulnerable for victimization as compared to male children⁵. Similar findings have been confirmed in present study as male victimized children develop more depressive symptoms as compared to female children. Prevalence of victimization is greater among boys as compared to girls. It was also reported by research in past²². Grade differences in peer victimization were also studied. Previous researches suggested that children in junior grades were more often victimized than children in senior grades. Results of current study are slightly different as children in both grades get equally victimized. But children in junior grades showed more depressive symptoms as compared to children in senior grades. So we can say that non significant results on victimization in junior grades may be because the children are unable to identify victimization. It is concluded in present study that peer victimization increased the levels of depressive symptoms. This means reduction in peer victimization in schools is potentially a use full preventive intervention for children. It was an initial step in this area which can help in the understanding of this phenomenon in our culture.

LIMITATION OF STUDY

In present study, the data was collected by using only self report measures and sample size was small, so in future it is recommended to use other measures as well with larger samples.

CONCLUSION

These findings showed the effects of peer victimization, so intervention should be carried out to help the victims in coping with their feelings following peer attacks. School staff and parents should be educated about the different types of bullying and its effects on students. Bullying has not been extensively explored in Pakistan. A detailed account of peer victimization

could be helpful in choosing suitable approaches to countering bullying and victimization.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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