

## **Effect of Terrorist Attack of December 16, 2014 on Academic Performance of School Children of Peshawar**

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The purpose of study was to determine the effect of traumatic events of December 16, 2014 on level of trauma of the children of Peshawar and the effect of traumatic experience their academics performance. Total sample consisted of two hundred (N=200) students with age range of 14-16 years (M=14.59, SD=1.128). Data was collected from the students of Army Public School and College System. Warsak road Peshawar and other three Schools on Warsak road included, Peshawar Public School, Peshawar Model School for Girls and Warsak Model School. Random sampling technique was used to recruit the study participant. Demographic information sheet, the Impact of Event Scale- Revised, Self-constructed questionnaire for measuring the Academic Performance of the students before and after traumatic experience of the students. Result showed that the terrorist attack effect the mental health of the students, students reported significant effect on their academic performance.

*Keywords:* trauma, academic performance, school children, terrorism

Trauma is defined as deeply depressing and distressing event experienced by the individual or group of people. Traumatic event may be man-made or natural, having serious effects on the wellbeing of the trauma victim. Experiencing a traumatic event may illicit symptoms such as re-experiencing the traumatic event, negative alterations in cognitions

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and mood, avoiding trauma associated stimuli, and alterations in arousal and reactivity (DSM 5, 2013). The students demonstrate a decline in academic performance following exposure to traumatic events. These changes occur due to complications in completing the home work tasks due to recurrent thoughts of the direct or indirect exposure to traumatic event that may be natural or man-made. Due to post traumatic stress or anxiety the child cannot focus at school tasks, and the anxiety and depressed mood effect the students motivational level, cognitive and academic performance of the students (Bachrach & Read 2012; Young, D. K et al., 2011).

Thornton (2000) explained the negative effect of trauma on cognitive development; he elucidated that problems with learning and failure in the academic have been seen in children having post-traumatic stress (McFarlane 1987; Kinzie et al. 1989; Sack et al. 1993; & March et al. 1997). Thornton associated these cognitive development problems to the post traumatic negative effects of the events and emotional reactions to the traumatic event that may impede with learning, like numbing, avoidance, or social withdrawal. according to Fitzpatrick KM.,(1993) the post traumatic symptoms like poor concentration and disturbance thoughts develop 4-6 percent in students of all state that effect their academic performance.

The effect of the traumatic events of trauma can be demonstrated at three different levels: the people (student or staff), the system of the school, and/or the community around the school. The most observable and easiest to detect impacts to the students or staff are physical injuries. The frequently occurring disruptions are Psychological and cognitive disruptions, which are relatively more difficult to recognize. For instance, The Most common reactions to a school based traumatic event are meddling with the student's ability and staff focuses on learning. Other events occurring frequently after the traumatic events are school system disruption which changes the regular functions and routines of the school (changes to safety protocols). Furthermore, the concern of the parents often rises significantly after traumatic events and when not addressed properly, may extend the disturbance in the regular school routines. Huge scale events may gather concentrated attention from both the community and media news. This can bring about prolonged disturbances across the broader community, with frequent exposure to media coverage possibly causing significant trauma-associated symptoms in students (Kataoka. S., et al.2012).

Cohen and Mannarino (2004) concluded that students or children with traumatic stress are unable to fulfill the routine tasks of re-settlement because of the remembrance of the loved one which remind them of a trauma, with the consequent development of traumatic symptoms. Schuster & his colleagues (2001) conducting a research on traumatic stress on general population to find out the stress level among them. According to this study considerable amount of stress symptoms are observed in 40 % of the adolescents 90 % showed a single or more than one symptoms to some degrees of stress across the country Their coping strategies were different like talking with others 98 % while 98 % going towards religion, 90 % socializing themselves in group activities 60%, and others making donations were 36%. About 84% showed that they had chatted with their children for one hour or more about that attack; 34 % stressing their children's to watch television. 35% of children had only a single or more than one stress symptoms, and 47 % were more concerned about their own security and of loved ones.

### **Objectives**

1. To investigate the post traumatic psychological symptoms developed in children and adolescents after the terrorist attack on school in Peshawar on December 16, 2014.
2. To find out the effects of trauma on the academic performance of the students.

### **Hypotheses**

1. Children who are directly exposed to traumatic event will score higher on impact of event scale as compared to children who are not directly exposed to traumatic event of the terrorist attack of December 16, 2014.
2. Children who are directly exposed to traumatic reveal more problems in academic performance as compared to children who are not directly exposed to traumatic event of the terrorist attack of December 16, 2014.

## Method

### Sample

The sample comprised of two hundred (N=200) students of class 8<sup>th</sup> to 10<sup>th</sup> with age range of 15-16 years both boys and girls from different schools on Warsak Road Peshawar. The random sampling technique was used to recruit the study participant. The exploratory research study design was used for collecting data regarding academic performance before the terrorist attack of December 14, 2016. The sample is divided into low, moderate and high stress groups on the basis of the scoring of the Impact of Event Scale-Revised.

### Instruments

#### The Impact of Event Scale Revised (IES-R)

The Impact of Event Scale (Revised) (IES-R) is a 22 items self-reported measure which subjectively assesses distress caused by traumatic events. It developed by Weiss and Marmar (1996).

#### Academic Performance Questionnaire:

Academic performance questionnaire was comprised of ten (10) items, to measure the present and past perception of the performance of the students in academics. The questionnaire was a self-report questionnaire for measuring academic performance of the students. The alpha reliability of the scale retrospectively was .77 whereas the alpha reliability of the academic performance after the traumatic event was .74.

### Procedure

At the beginning of the data collection formal permission was sought from principals of the schools included in the sample of the study. They included four schools on the Warsak Road Peshawar, including Peshawar Model School for Girls, Peshawar Public School, Warsak Model School and Army Public School and College System, Warsak Road Peshawar in which the terrorist attack happened. The data was collected after five months and few days after the terrorist attack that was May 09, 2015 when the staff and students already resumed their classes. The study formally started with formal permission of school administration and after receiving the formal permission from school administration the data was collected in group. Army Public School and College System's Teachers cooperated in data collection because due to

severe traumatic experience the school administration preferred their own teachers to collect data for the current study. The purpose of the study was briefly explained before giving them questionnaire and the subjects were assured of the confidentiality of their responses. They were further clarified that their responses will be used for the research purpose only. They were requested to reply honestly. The students were instructed to recall their academic performance before the terrorist attack on Army Public School and College System Peshawar on December 16, 2014 and answer each question related to academic performance retrospectively, with ten minutes break the academic performance questionnaire for the post terrorist attack, that's their present state of performing in academics.

## Results

Table 1

*Paired Sample t-Test on Academic Performance Before and After Traumatic Experience among School Children (N=200)*

Variables	N	M	SD	t-value	P	LL	UP
APBT	200	32.39	4.63	13.13	.001	3.84	5.20
APAT	200	27.86	4.92				

*Note: df=199; APBT=Academic Performance before Trauma and APAT=Academic Performance after Trauma. M=mean and N=Number of subjects. Higher the scores, better will be the academic performance*

Table 1 shows paired sample t-test on academic performance before and after the traumatic event experienced. The result indicates that the students report a significant decline in academic performance after the trauma.

Table 2

*Mean, SD, and F-values of Academic Performance of the School Children Post Army Public School and College System Attack of December 16, 2014 on the Basis of Three levels of Scores of Impact of Event Scale-Revised (N=200)*

Variable	N	M	SD	F	i-j	MD.(i-j)	SE	95% CI	
								LL	UL
<i>Academic performance before trauma</i>									
Low	85	32.60	4.71	.20	1>2	.53	.51	31.58	33.62
Moderate	44	32.07	5.87		1>3	.28	.43	30.28	33.85
High	71	32.32	3.64		2<3	-.26	.89	31.46	33.18
<i>Academic performance after trauma</i>									
Low	85	27.93	4.11	15.85***	1>2	3.17**	.45	27.04	28.82
Moderate	44	24.75	5.22		1<3	-1.77*	.56	23.16	26.34
High	71	29.70	4.72		2>3	-4.95***	.79	28.59	30.82

Note: \*P<.05, \*\*P<.01 & \*\*\*P<.001. df=(2,197)

*APS=Army Public School and College System, PMG=Peshawar Model Girls school, PPS=Peshawar Public School and WMS=Warsak Model School. Higher the scores, better will be the academic performance*

Table 2 shows mean standard deviation and analysis of variance among total sample divided into three categories of level of post-traumatic stress on the basis of academic performance before and after experiencing trauma. The results reveal significant difference between those students who scored low on post trauma stress and those reported high level of post traumatic stress that is highly statistically significant at  $p<.001$  level. However there is no significant difference on the academic performance of the students before the traumatic experience. It means that the terrorist attack had significantly caused impairment in academic performance of the school children.

Table 3

*Mean, SD, and F-values of Academic Performance of the Post Army Public School and College System Attack of December 16, 2014 on the Basis of Schools of the Selected Sample (N=200)*

Variable	N	M	SD	F	i-j	MD.(i-j)	SE	95% CI	
								LL	UL
<i>Academic performance before trauma</i>									
APS	85	32.60	4.71	2.28	1>2	1.72	.51	31.58	33.62
PPS	34	30.88	3.99		1<3	-1.05	.68	29.47	33.27
PMG	37	33.65	2.70		1>4	.53	.44	32.75	34.55

WMS	44	32.39	5.86		2<3	-2.77	.88	30.28	33.85
					2<4	-1.19			
					3>4	1.58			
<i>Academic performance after trauma</i>									
APS	85	27.93	4.10	10.55***	1>2	-1.60	.45	27.04	28.82
PPS	34	29.53	5.06		1<3	-1.93	.87	27.77	31.30
PMG	37	29.86	4.44		1>4	3.18**	.73	28.38	31.35
WMS	44	24.75	5.22		2<3	-.33	.79	23.16	26.34
					2>4	4.78***			
					3>4	5.11***			

Note: \* $P < .05$ , \*\* $P < .01$  & \*\*\* $P < .001$ .  $df = (3, 196)$

APS=Army Public School and College System, PMG=Peshawar Model Girls school, PPS=Peshawar Public School and WMS=Warsak Model School. Higher the scores, better will be the academic performance

Table 3 shows mean standard deviation and analysis of variance among APS, PPS, PMG, and WMS on scores of academic performance before and after the terrorists attack. The results of one way ANOVA indicate the difference between the scores of the different schools included in the study. The result reveals that children of Warsak Model School scored significantly lower than all the other schools. Mean score on academic performance of the students of Warsak Model School reported 24.75 whereas children of Army Public School and College System, Peshawar reported 27.93. It is important to mention that terrorist attack took place in Army Public School and College System and Warsak Model School is in close vicinity to the APS school. Children were trapped in the school for hours due to security reasons and were listening to the firing etc. It indicates that the children either directly exposed or indirectly exposed to traumatic experience their academics and mental health is negatively affected.

### Discussion

The present research examined the trauma related stress in the children of the Army Public School and College System and the schools of the same area to investigate the direct and indirect effects of traumatic event (terrorist attack on school children) and its effect on the academic performance of the children. The children's academic performance was compared on the basis of the level of scores on post-traumatic stress and on the basis of the schools included in the study. The results revealed that children of Warsak Model School slightly greater decline in academic performance than the children of the Army

Public School and College System. It is important to mention here that Warsak Model School is located opposite to Army Public School. It is therefore concluded that children of WMS reported slightly more decline because traumatic stress happens when children and adolescents are exposed to traumatic situations or traumatic events, and that exposure overcame their ability to cope with what they have experienced while trapped in the school for the whole day with constant threat of attack. Many children showed signs of intense distress, disturbed sleep, concentrating and difficulty paying attention, irritability and anger, withdrawal, extreme distress and repeated and intrusive thoughts, when confronted by anything they re-experience their trauma.

The post traumatic psychological symptoms develop in children and adolescence after a trauma. Which affect the ability of a child to self-regulate the physical and emotional condition, difficulty in sleeping, eating, digesting, excretion, or focusing on something increased Anxiety withdrawal or dissociation and hyper arousal or low arousal, (Moroz.,2005).

Schlenger and colleagues.,(2002) conducted a research in New York after the 11 Sep attack and conclude psychological distress across the country. This study stated that 75,000 New York City public school children in grades 4 through 12 were suffering from post- traumatic stress disorder and 1 or more children from all households were distressed by the attack Van der Kolk et al.,( 1996) conducted a research on trauma related stress they conclude that Exposure to extreme traumatic stress disturbs people at many levels of functioning: emotional, somatic, behavioral, cognitive, and characterological.

According to Young, D.K et al., (2011) the students demonstrate a decline in academic performance, they cannot concentrate at school tasks and their depressed mood and anxiety affect their motivational level and academic performance following exposure to traumatic events. Thornton (2000) explained that academic failure and learning problems have been reported in school children with PTSD.

The finding of the present study indicated the relationship between the terrorist attack and the mental health of the students. The results were in line with attention control theory (Eysenck, 2007) that states that anxious students are often preoccupied with threat related stimuli that reduces their ability to focus on the tasks. The findings support the hypothesis that traumatic event reduces the academic performance of the school children and it does not mean that the trauma



affected child would lose all his abilities to get back to school or perform his academic tasks. Similarly the traumatic event did not effect all the children alike, some showed low level of symptoms of post-traumatic stress others were moderate and highly effected by the event. Children

### **Conclusion**

It is concluded from the findings of the present study that in the aftermath of terrorist attack on December 16, 2014 showed that there is a substantial burden of traumatic stress among students who experience the attack. Particularly, the extent of exposure to a trauma and is probably the most important threat factor for the development of traumatic stress in students. Therefore, students who were direct or indirect victims of a terrorist attack, have a greater chance of developing traumatic stress, depending on the severity of the threat and fear of vulnerability for becoming the victim.

### **Limitations**

- The data was collected in groups form due to the time constraints on part of the students and teachers of the schools.
- Data collection was done by the researcher in all the three schools except for the Army Public School and College System because due to direct exposure to traumatic experience and due to an ongoing rehabilitation services in the school, the school administration in the best interest of children did not allow the researcher rather data was collected through their own teacher after explaining the procedure and instructions to the teachers. It is possible that this might have served as a limitation because the data was not directly collected by the researcher.
- The research study was intentionally limited to measuring specific constructs in relation to traumatic stress. There are many other constructs that have been found in research to be related to traumatic stress but they are not examined in the current study.

### **Recommendations**

- Furthers researches should be done in this area with a longer duration to check the long term effects of traumatic experience

- Because of the disproportionality of the current study sample, it would more beneficial to replicate this study to use a large number of schools and increase the sample size.
- It is beneficial for future research to collect the data individually not in group form to give full attention on students and to get the more reliable results.
- The other construct of the trauma related stress should be focused in future researches. The study focused on school children only, it will be helpful if attention, and cognition of the teachers, other staff members including parents of the children should be studied.

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