

POST TRAUMATIC STRESS DISORDERS AMONG STUDENTS AFTER ARMY PUBLIC SCHOOL PESHAWAR ATTACK 2014

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ABSTRACT

Objective: To find out Post Traumatic Stress Disorder among students of Peshawar after the Terrorist Attack on Army Public School Peshawar during 2014.

Material & Methods: This was a cross sectional descriptive study and carried out in Peshawar over a period of 3 months from March to May 2015. Study population included all students from all schools and colleges of Peshawar. Sample size was 300 students. Post traumatic Stress Disorder checklist was used for assessing the Cognitive dysfunctions among students. Data was collected through questionnaire i.e. post traumatic stress disorder checklist and analyzed.

Results: Out of 300 students, 187 (62.33%) were males and 113 (37.66%) were females. Students above intermediate were 229 and below were 71 students. Among the respondents, about 20 % students had extreme response to complaint "Repeated disturbing memories, thoughts or images of a stressful experience from the past incident of APS Peshawar". About 17% reacted extremely to "Feeling distant or cut off from other people". About 18% of the students extremely responded to "Trouble falling asleep". About 12% responded extremely to feeling irritable or having angry outbursts and having difficulty in concentration. About 18% students felt emotionally numb, 16% lost interest in things they used to enjoy before and 18% students avoided activities as these reminded of the previous stressful experience.

Conclusion: Results showed a remarkable amount of Post traumatic Stress Disorder (PTSD) among students in Peshawar. Psychological Intervention is necessary to students as the events of war, terrorism & disasters lead to the PTSD in students. Presence of PTSD is because of many incidents of bomb blasting in schools, colleges, mosques, markets etc. In addition Peshawar is also affected in the past by natural disasters like earthquakes, floods etc.

Key Words: Post-traumatic stress disorder (PTSD), Terrorist attacks, Cognitive dysfunctions, Psychological intervention.

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INTRODUCTION

Almost everyone comes across some hurtful events in life. About two thirds of the population receives extensive destruction that is linked to post-traumatic stress disorder (PTSD)¹. Disasters of any form are dreadful events and when occurs, may result in a large

variety of physical, social and mental consequences. Beside the abrupt medical consequences, disasters may cause long-lasting mental disorders among large number of survivors.² World has experienced violence all the way through the history but this has reemerged after the shocking attacks of 9/11. Due to such actions there is massive loss of population, infrastructure and psychological stress in the society.³ There is limited reporting on mental health disorders among young people from developing countries. During last several years, information regarding psychosocial consequences of disasters has been growing rapidly. Among these consequences post-traumatic stress disorder (PTSD) is the most reported by relief teams while working in the areas following a disaster. In spite of inadequate international data, massive number of

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populations in some countries has been exposed to brutality and violent behavior. This advocates high prevalence of hurtful events worldwide especially in developing countries.⁴ Prevalence of PTSD following disasters among people of various communities' range from 14% to 56%.⁵⁻⁷

According to Global Burden of Diseases, the prevalence of post traumatic stress disorders among the general population is 0.37%.⁸ Post-traumatic stress disorder (PTSD) among adolescent people continues for long time. This depends upon different factors like severity, duration and way of occurrence of event, besides the degree of difference of response to the trauma.⁹ The burden of war-related PTSD among military personnel's in the Vietnam War ranged from 2-17%, US Iraq War ranged between 4-17%, but only 3-6% of returning UK Iraq War military persons.¹⁰ However family, teachers and even psychiatrists underestimate intensity and duration of the stress reaction.¹¹ Adolescents may have diverse types of mental illnesses of PTSD following disasters and are usually characterized by depression, nervousness and hostile behaviors.¹² The mental health problems of PTSD following disasters among adolescents are usually different from adults and depend upon the cognitive and emotional levels. Although a bulk of research studies have focused on adults, however adolescents are more exposed to mental health problems after disaster that is reflected in a variety of composite behavioral attitude and practices as often the post-disaster stress reactions among adolescents are not easily identified. Researches show contradictory results of child fatalities following disasters in developing countries.¹³

On the global scenario, Pakistan is a leading edge state in the war against terrorism. Even prior to 9/11 terrorist attacks on world trade center USA, Pakistan was familiar to terrorist activities, but as a result of participation in the "Global War on Terror" uncovered it to heightened activities of terrorism. During the last decade, there has been a rise in terrorist acts especially suicide bombings in Pakistan. These attacks maximized the severity and duration of the psycho-social impact on the population.

Army Public Schools & Colleges System (APS & CS) is an educational system, having branches located in the whole country. This system is an English Medium educational system. There are more than two hundred schools in Pakistan. Army Public School is one of them and established in 1992 and became a part of APS & CS in 1994. Objective of the study was to assess the post traumatic stress disorder among the school & college students in Peshawar.

MATERIAL & METHODS

This was a cross sectional descriptive study and was carried out among school and college going students of Peshawar over a period of March to May 2015. Study population included all school and college going students of Peshawar. Sample size of 300 was calculated for the purpose of this study using the formula for estimating sample size for the cross-sectional study.¹⁴ This was based on 95% confidence interval, 50% prevalence and 5% precision. This study included school and college students of Peshawar Non-probability sampling technique was used for the purpose of data collection of 300 students from five schools and colleges in Peshawar.

Students above 8th class were included the study.

Students of the affected school and post graduate students were excluded from the study.

Data collection tool: There are different psychiatric scoring tools and scales that can be used to assess PTSD. The Post Traumatic Stress Disorder Checklist (PCL) is an easily administered self-report rating scale for assessing the DSM-IV symptoms of PTSD. It has excellent test-retest reliability over a 2-3 day period.¹⁵ Data was collected through interviews and filling the questionnaires of Posttraumatic Stress Disorder Checklist (PCL). Collected data was analyzed using SPSS version 19.

RESULTS

A total of 300 students were selected from two medical colleges and three schools. Among these students, 183 were from medical colleges and 117 students were from the schools shown in figure 1. Out of these 300 students that were studied upon for the purposes of post traumatic stress disorders, 187 (62%) were males and 113 (38%) were females, as shown in Table 1. The frequency of affected and non affected students on the basis of gender is shown in Table 2. Repeated

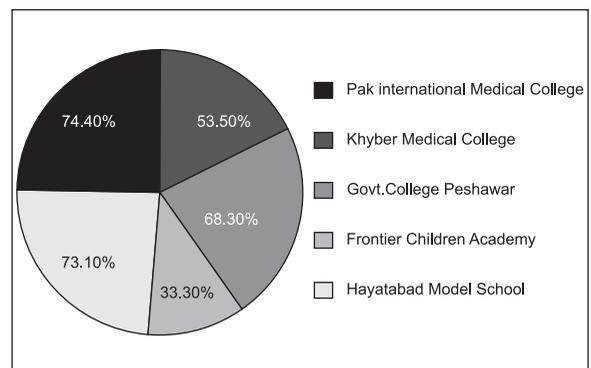


Figure 1: Percentage of students affected of relevant College/School

Post traumatic stress disorders among students after Army Public School Peshawar attack 2014

Table 1: Demographic characteristics of respondents

School/College	Male	Female	Total
Pak International Medical College Peshawar.	60	82	142 (47%)
Khyber Medical College, Peshawar	20	21	41 (14%)
Govt. College, Peshawar, Peshawar	48	0	48 (16%)
Frontier Children Academy	26	0	26 (9%)
Hayatabad Model School	33	10	43 (14%)
Total	187 (62%)	113 (38%)	300 (100%)

Table 2: Frequency table of affected and non affected students based on sex

	Students affected / not affected	Frequency
Male Students	Males affected	78 (42%)
	Males not affected	109 (58%)
	Sub-Total	187
Female Students	Females affected	93 (82%)
	Females not affected	20 (18%)
	Sub-Total	113

Table 3: Responses of students regarding the Post Traumatic Stress Disordersw

Response	Not at all (percentage)	Moderately (percentage)	Extremely (percentage)
1. Repeated disturbing memories, thoughts or images of a stressful experience from the past	91 (30.33%)	148 (49.34%)	61 (20.33%)
2. Feeling distant or cut off from other people	152 (50.67%)	98 (32.66%)	50 (16.67%)
3. Trouble falling or staying asleep	110 (36.67%)	136 (45.33%)	54 (18%)
4. Feeling irritable or having angry outbursts	51 (17%)	212 (70.67%)	37 (12.33%)
5. Having difficulty concentrating	90 (30%)	175 (58.33%)	35 (11.67%)
6. Feeling emotionally numb or being unable to have loving feelings for those close to you	78 (26%)	169 (56.33%)	53 (17.67%)
7. Loss of interest in things that you used to enjoy	88 (29.33%)	163 (54.34%)	49 (16.33%)
8. Avoid activities or situations because they remind you of a stressful experience from the past	72 (24%)	173 (57.67%)	55 (18.33%)
9. Having physical reactions when something reminded you of a stressful experience from the past	65 (21.67%)	177 (59%)	58 (19.33%)

disturbing memories, thoughts, or images of a stressful event in the past was moderate in 49.33% and extreme in 20.33% of students, while rest of the responses are shown in Table 3.

DISCUSSION

The present study showed that the diagnosis and higher symptoms scores of PTSD were associated approximately six months after the attack. Results of this study are higher when compared with that of World Mental Health Surveys and National Co-morbidity Replication (NCS-R). During the last decade of 20th century, the World Health Organization (WHO) began collecting data on mental health disorders around the world. In 2008, the research consortium had collected data from about 0.2 million respondents from more than 20 countries. Results of PTSD of the World Mental Health Surveys have been published and available in several countries. According to this survey, estimates of PTSD prevalence for the whole time range from 0.3% in China to 6% in New Zealand. Although the statistics are available but are not directly comparable among various countries due to differences in surveys methodology and sampling techniques.¹⁶ In a survey regarding National Co-morbidity Replication (NCS-R), conducted in USA during 2001 and 2003, PTSD was assessed among more than five thousand participants. According to this survey the prevalence of PTSD among adult people was 6.8%.^{17,18}

Finding of our study are similar to a study conducted for the assessment of Post-traumatic stress disorder among children in school of district Uttarkashi India, where 33% students continued to suffer from

trauma-related stress disorders even after three months of the disaster. Our results can also be compared with a study conducted in Karachi, where 67% medical students were in the view of that terrorism has affected their lives. Among them 78% believed that fear from the terrorist attacks have adverse effects on their educational development in the form of knowledge, skills and examination results.¹⁹ Dolberg OT et al showed in a study that 42% of people immediately after the terrorist attacks expressed short-term mild post-traumatic depression, while after few years, 35% had developed full-blown depression with symptoms. During 2008, terrorist attacks on Mumbai India, resulted in 164 deaths and above three hundred were injured. A senior psychiatrist Via Quest Psychiatric and Behavioral, (VPB) assessed these injured persons for the presence of acute stress disorder using DSM-IV-TR criteria and he found acute stress disorder in 30% of the victims.^{20,21}

Main study limitation included a moderate response rate and a cross-sectional design. Thus, we cannot exclude the possibility of sampling bias and only discussed possible causal direction. The present study might also have a disadvantage as the assessment was done just few months after the attack, at the point where symptom fluctuations had not stabilized.

RECOMMENDATIONS

Based on the results of our study, cognitive-behavioral therapy or counseling should be initiated to the students having some PTSD. Parents of the affected students should be taught appropriate management techniques. Relaxation and stress management techniques should be encouraged, such as regular exercises with deep breathing, positive imagery thinking's. Spend time in nature like hiking, camping, mountain biking, rock climbing. Indirect methods of discovering and addressing relevant issues may be more helpful like Art and Play therapy, creative writing of stories, poems and songs.

CONCLUSION

There is a need for recognition of post-disaster stress disorders and subsequently providing interventions in adolescent victims in developing countries especially in Pakistan.

Psychological intervention is necessary as the events of war, terrorism & disasters lead to the PTSD in people. PTSD is more prevalent in Peshawar because many incidents of bomb blasting had occurred for last so many years in schools, colleges, mosques, markets etc. There is increase occurrence of natural disasters like earthquakes, floods etc.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

Nawaz R: Concept, planned study, statistical analysis review states.

Nawaz S: Proof reading, bibliography.

Rehman SU: Compiling bibliography statistical.

Khattak MH: Compiling drafting concept reviewing.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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