

Exposure to violence and academic achievement in Iraq

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Abstract:

Background: Iraqis were exposed to wars, widespread violence and civil war. Post-traumatic stress disorder develops after exposure to trauma and violence. It has a negative effect on academic achievement of the students.

Objective: This report was carried out to study the effect of exposure to violence on academic achievement of youths in Iraq.

Methods: A total of 319 university students from Baghdad were included in the study. Their age ranged between 18 and 24 years with male to female ratio of 0.6:1. A questionnaire was filled for each participant. Requested data were demographic information, data on school achievement and Harvard Trauma questionnaire (exposure to war trauma, posttraumatic stress disorder "PTSD"). Chi square was used to examine the association between PTSD and poor academic achievement. Student's t test was used to demonstrate the difference in exposure between students with poor and good academic achievement. P value < 0.5 was considered as significant.

Results: Post-traumatic stress disorder was observed in 21.9% of students. Poor academic achievement was noticed in 32.9% of students with post-traumatic stress disorder. Academic achievement was not significantly associated with post-traumatic stress disorder ($p=0.8$). Significant difference was found in score of exposure to violence between students with poor and good academic achievement ($p=0.001$).

Conclusion: Exposure to violence had a negative effect on academic achievement

Key words: violence, exposure, post traumatic stress disorder, academic achievement.

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Introduction:

Evidence of poor school outcomes among adolescents affected by violence has been reported 1. Negative effect of Posttraumatic Stress Disorder (PTSD) on the standardized achievement test was noticed in Lebanon 2. PTSD develops after exposure to trauma or violence 3. Moderate correlation between I.Q. and PTSD had been published 4,5.

Iraqis were exposed to wars, widespread violence and civil war 6-8. This report was carried out to study the effect of exposure to violence, trauma of wars and widespread violence on the academic achievement of youths in Iraq.

Materials and methods:

A total of 319 university students were included in this study. Their residence was in Baghdad. Their age ranged between 18 and 24 years with male to female ratio of 0.6:1. Each student filled a questionnaire consisted of Harvard Trauma questionnaire (HTQ) in addition to demographic data. The HTQ included 28 items to measure exposure to violence and 45 items to diagnose PTSD. Score > 2.5 indicates PTSD that meets the criteria of the Diagnostic and Statistical Manual, fourth edition, text revision (DSM-IV-TR). HTQ has been extensively used in different countries. It has a

good internal consistency, test-retest reliability and validity 9,10. Academic year failure was taken as an indicator to poor academic achievement.

The effect of exposure to violence and PTSD (independent variables) on academic outcome (dependent variable) was examined by chi-square and student's t tests. P value of < 0.05 was considered as statistically significant.

Results:

Seventy students (21.9%) showed features of PTSD.

Table 1 shows the distribution of academic achievement according to PTSD. Twenty three (32.9%) of those with PTSD had poor academic achievement. No significant association between PTSD and academic achievement was noticed ($\chi^2=0.25$, d.f.=1, $p=0.8$).

Score of exposure to violence among students with bad academic achievement was 12.2 ± 5.8 , and among those with good academic achievement was 7.8 ± 4.6 . There was a significant difference in score of exposure to violence between those with good and bad academic achievement ($t=7.1$, d.f. = 318, $p=0.001$) (Table 2).

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Table 1: Distribution of bad academic achievement according to PTSD

PTSD	Bad academic achievement	
	No.	%
Positive	23	32.9
Negative	72	28.9
total	95	29.1

$\chi^2 = 0.25$, d.f.=1, $p = 0.8$

Table 2 : Score of exposure to violence according to academic achievement

Poor academic achievement	Score of exposure to violence	
	No.	Mean \pm SD
Positive	95	12.2 \pm 5.8
Negative	224	7.8 \pm 4.6

$t = 7.1$, d.f.= 317, $p = 0.001$

Discussion:

This study revealed no association between academic failure and PTSD. A finding which is inconsistent with that reported in the literature 1,2,4,5. It is clear that PTSD had a negative impact on cognitive ability of children and adolescents 11. This difference could be explained by the failure of HTQ and DSM criteria to capture the full range of symptoms that occur among youth exposed to traumatic events 3,4. In Iraq, exposure to violence is probably different from that in industrialized countries, and the employed checklist of HTQ might not capture all types of violence and psychological traumas. This might further contribute to the mentioned difference. Adapted screening model, summed symptoms scores which were dichotomized at a pre-established cut-off point to identify individuals likely to meet clinical criteria for PTSD is infeasible for reasons; no previous work has developed a cut-off point for current measures, and the cut-off points were developed in industrialized countries 12. The psychometric limitations of exposure checklist HTQ using binary options are well established 13, which is further contributed for discrepancy with the literature. Variations in the prevalence rates in studies of PTSD might be attributed to differences in context or methodology or both 14. Furthermore, the duration of exposure to trauma of violence mask the effect of PTSD on academic achievement. The university students in this study were exposed to Iraqi-Iranian war, 1991 gulf war, sanctions and 2003 gulf war then a civil war, as they borne in 1986-1992. PTSD may impact further developmental areas such

as personality, perceptions of danger, representation of self and others, and regulation of cognition and affect. Recently, several workers reported that exposure to violence (direct and indirect) was associated with worse mental health 15-17.

The score of exposure to violence was significantly higher among students who had poor academic achievement than that among students with good academic achievement indicating that the degree of exposure to violence had significantly affected academic achievement. This finding is consistent with that of other workers 1,4,11. Adolescents often display disruptive behavior such as impulsivity and inattentiveness as a result of exposure to violence which frequently affects their academic achievement. Community violence (deliberate acts intended to cause physical harm against person or persons in community) is recognized as a major public health problem 18. There were few published articles on impact of violence on Iraqis 3,19,20. This limits the ability to determine the causality and identify variables that may mediate the association between exposure to community violence and adjustment. Degree of exposure to disasters is consistently associated with likelihood of PTSD. In a recent communication, Al-Diwan 29 reported that poor academic achievement was significantly associated to accumulated events (war and conflict traumas).

In conclusion, exposure to violence was significant for the occurrence of poor academic achievement, although, only a minority had developed PTSD.

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