
Post-Traumatic Stress Disorder among University Students in Baghdad: A Preliminary Report

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Abstract:

Background: Iraqis have been exposed to wars, widespread violence and terrorist activities during the last 3 decades. Few reports were demonstrating the effect of exposure to wars and conflicts on mental health of Iraqis. Therefore, this study was carried out to report on the prevalence of posttraumatic stress disorder (PTSD) among university students in Baghdad.

Methods: A total of 319 university students from Baghdad University and their residency in Baghdad governorate were selected conveniently to participate in the study. Iraqi version of Harvard Trauma Questionnaire (HTQ) was used to measure the trauma exposure and PTSD. HTQ consisted of 28 items on exposure to traumatic events and PTSD was measured using 45 questions on trauma symptoms. A score > 2.5 was considered significant for meeting criteria of PTSD based upon the Diagnostic and Statistical Manual for Mental Disorders, fourth edition (DSM-IV).

Results: There were 22.9% of the respondents had symptoms of PTSD. There was no association between PTSD either with age or sex. PTSD symptoms were positively associated with the number of trauma events.

Conclusion: High prevalence of PTSD was revealed among students of Baghdad University, Further research may clarify the epidemiology of PTSD in Iraq.

Keywords: Posttraumatic stress disorder, Harvard Trauma Questionnaire, University student, Baghdad, war, widespread violence.

Introduction:

Posttraumatic stress disorder (PTSD) is a syndrome that develops after exposure to an extreme stressful event that provokes fear, horror or helplessness. The syndrome is characterized by re-experiencing the trauma, avoiding reminders of the trauma and increase physiological arousal and startles^[1].

Iraqis have been exposed to wars, economic sanctions and widespread violence and terrorism during the last three decades^[2-4]. Mental health is recognized as a key public health issue for conflict-affected population^[5]. Elevated rates of mental distress have been recorded amongst diverse adult populations that have been experienced war. This could be either general measures of mental health^[6] or specific conditions of which the most commonly reached tend to be post- traumatic stress disorder (PTSD) and depression^[7].

Few reports were demonstrating the effect of exposure to wars and conflicts on the mental health of Iraqi adolescents^[8-11]. Therefore, this study was carried out to report about the prevalence of PTSD among adolescents in Iraq, Baghdad.

Materials and methods:

A total of 319 university students from University of Baghdad and their residence in Baghdad were selected to participate in the study. The sample was chosen by feasible way through visiting Baghdad University, Colleges of: Medicine, Veterinary Medicine and Agriculture. The students of the sample were chosen from first and second stages of each

college and their age was between 18-24 years. Data collection took place during the period 1st Feb. to 30 April 2010. The collected data was confidential and anonymous.

A questionnaire was developed consisting of items related to demographic characteristics of the respondents (age, sex), and existing health measurement

Instrument to measure trauma exposure and PTSD (Harvard Trauma Questionnaire)^[12,13]. Iraqi version of Harvard Trauma Questionnaire (HTQ) consisted of 28 items with a yes/ no response on exposure to traumatic event types throughout the respondent's lifetime and also within the previous 12 months. PTSD was measured using 45 questions on trauma symptoms with a 4 points severity scale (1, "not at all"; 2, "a little"; 3, "quite a bit"; 4, "extremely"). The first 16 items are based upon the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSM-IV). The remaining items were developed specifically for forcibly conflict affected population^[14]. PTSD score >2.5 was considered significant for meeting symptoms criteria of PTSD based on instrument standards.

The HTQ has been used extensively in different countries and also in Iraq, and a good internal consistency, test-retest reliability and concurrent validity have been reported^[12-15].

The outcome of PTSD was dichotomized into respondent exhibiting or not exhibiting signs of PTSD (cut off > 2.5). The association of PTSD (dependent variable) with demographic and trauma exposure

variable (independent variables) were tested by chi-square. Simple linear regression was used to demonstrate the effect of violence (independent variable) on symptoms of PTSD (dependent variable). P value less than 0.05 was considered as significant.

Results:

Out of the total, 73 participants (22.9%) had the symptoms of PTSD. Age of participants who had PTSD was 19.7 ± 1.3 years and who had not PTSD was 19.8 ± 1.8 years. No significant statistical difference was noticed in age between those who had PTSD and who had not PTSD ($p = 0.6$). Twenty eight (22.4%) of male students and 45 (23.2%) of female had PTSD. There was no significant difference in PTSD between males and females (Table1).

Fig.1 demonstrated that PTSD symptoms were positively associated with number of trauma events that the students had exposed to.

Discussion:

The prevalence of PTSD (22.9%) is consistent with that reported previously in Iraq (22.13%^[12] and 26.5%^[16]).

It is much higher than that reported by Iraqi Mental Health Survey (IHMS)^[10] (1.6%). This difference could be attributed to variations in the instruments used for screening. IMHS used the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI).

The CIDI is a standardized diagnostic interview designed to assess the current and lifetime mental disorders according to the definitions and criteria of DSM-IV^[17]. Most recently, CIDI was adapted for use in collaborative psychiatric epidemiology survey^[18], however, validation of CIDI is a challenging task and it presents problems for accessing PTSD^[19].

Limitations in IHMS (exclusion of internally displaced persons, those who migrated out of Iraq and residents of areas deemed too dangerous and

completion of the survey during the period of ongoing violence 2006-2007) could be also, contributed for the low rate reported by IMHS. The reported high figure (22.9%) could be attributed to the fact that Iraqis were exposed to widespread violence in the last years. Several workers documented the exposure of Iraqis to violence²⁻⁴ (prolonged and repeated trauma). It is well established that exposure to violence is a risk factor for PTSD^[1,20]. High rates of PTSD were reported after and during conflicts (exposure to violence during wars and civil wars) i.e. in southern Sudan (36.23%)^[21], Afghanistan (39.87)^[22], Sri Lanka (30.4%)^[23] and Uganda (55.9%)^[24].

Although a high rate of PTSD was reported (22.9%), there is a risk of underestimation the prevalence of PTSD among youths as the formulation of PTSD diagnosis fails to capture the diagnosis of sequelae of prolonged repeated trauma^[25].

PTSD was not associated with age. It is consistent with that of other workers^[1,12,16,22,23].

In a previous communication^[26], a significant effect of age on PTSD was reported. The difference might be due to difference in samples.

The finding that no significant difference in the rate of PTSD between males and females is in contrast with that in literature^[1,26,27]. The sex differences related to PTSD appears to be a cross- culturally consistent. In Uganda^[24], no sex difference related to PTSD was detected.

A clear dose- effect relationship between the numbers of different types of traumas with PTSD symptoms was found.

It suggests that the experience of cumulative stress might have a harmful effect on mental health. It is with the line of previous studies^[21-24].

High prevalence of PTSD was revealed among university students in Baghdad. Further research may clarify the epidemiology of PTSD in Iraq.

Table 1: Age and sex distribution of PTSD

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Variable		PTSD		No PTSD	
		Age $\pm$ SD (years)		Age $\pm$ SD (Years)	
age		19.7 $\pm$ 1.3		19.8 $\pm$ 1.8	
		t=0.5, d.f.=320, p= 0.6			
		No.	%	No.	%
sex	Male	28	22.4	92	77.6
	Female	45	23.2	154	76.8
		χ^2 =0.15, d.f. = 1, p= 0.69			

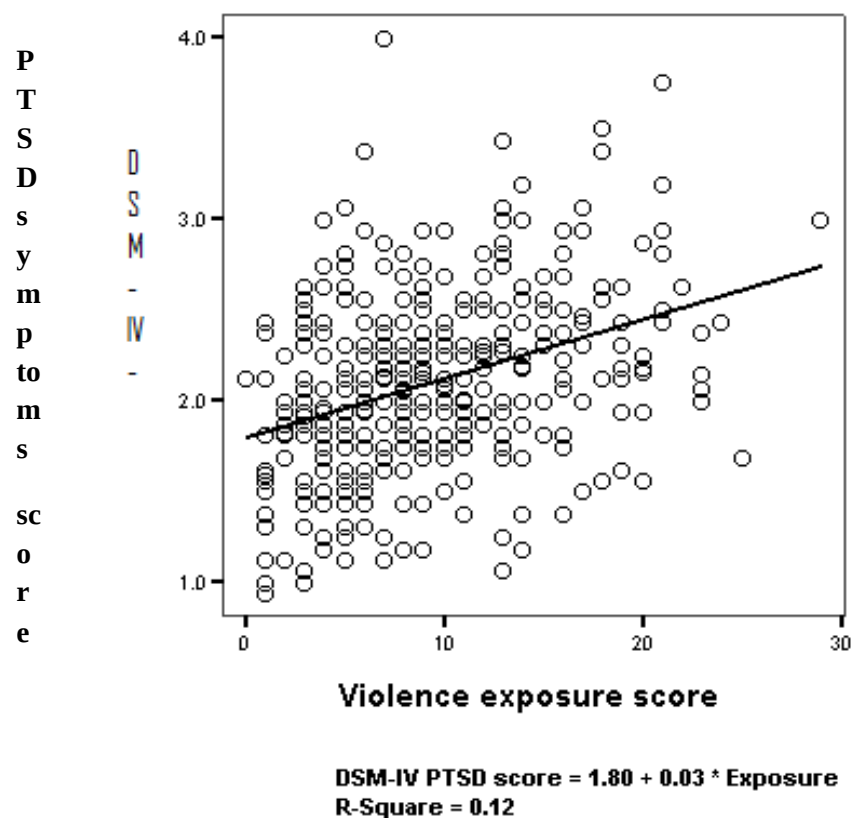


Fig.1 Regression line showing the association of symptoms of PTSD and violence exposure score

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