



Post Traumatic Stress Disorders among the university students of Mosul : Aftermath of War Atrocities

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INTRODUCTION

Between 2014-2017 the City of Mosul, Iraq's second largest city was seized by the Islamic State of Iraq and Syria (ISIS). During this period, Mosul's 1.68M residents suffered atrocities, violence, and aerial bombardment during liberation campaign. Mosul is Iraq's second-largest city, measuring 180 km² with 1.683 million city inhabitants out of 2,321,479 million in the whole Nineveh governorate 2019 [1]. The vast majority are Arab Sunnis with some ethnic and religious minorities. It is geographically divided into two parts; east side and west side [2]. Mosul lived through three wars and economic sanctions for the last four decades and subjected to a tide of Islamic radicalism after the US occupation April/2003. The doctrine of Islamic fundamentalists was fueled by the sectarian attitude of the Iraqi government forces. In June 2014, an estimated 1500 ISIS fighters seized control of the city implementing brutal governance for 29 months [3]. Iraqi forces fled the city without combating, leaving residents behind. An estimated 1 million persons decamped. Around 1.5 million stayed behind. The military campaign to drive ISIS out of Mosul began on October 17, 2016, where 30,000 Iraqi security forces with popular Shi'a militants, Kurdish fighters (Peshmerga), 6,000 "in-country troops" and 1700 American soldiers composed the "liberating forces" [3,4]. The people of Mosul were instructed by government not to escape their besieged city, ISIS snipers assassinated those trying to flee. When the Collation Forces intensified bombardment on the densely populated old city (west side), whole neighborhoods were obliterated. Thousands of families hiding in their house's basements were buried under the wreckage [4,5]. The battle against ISIS was concluded on June 29, 2017, leaving an estimated 11,000 civilian deaths; 4000 bodies under the wreckage by the comprehensive airstrikes. The massive damages to almost all civil buildings, particularly on the west side, leaving 1.2 million displaced persons constituting 37.5% of Iraq's internally displaced persons (IDPs) with post-conflict grief and poverty for people who survived inside the city [5,6]. The battle against ISIS attracted global and considered the most extensive urban conflict since the Second World War. Naturally, survivors of such atrocities will suffer trauma-related mental disturbances in different presentations, including Post Traumatic Stress disorder (PTSD).

A general view of the destruction in Mosul Old City © AFP



AIM

We aimed to determine the prevalence and the severity of post traumatic post-traumatic stress disorder (PTSD) among a group of university students.

METHODS

This study was conducted 15 April-29 December 2020. Data were collected from 305 university students by face-to-face interview. The second author directly approached 400 students to complete the survey. The Iraqi version of the Harvard Trauma Questionnaire (HTQ) was used in this study to assess the severity of trauma. The collected data were analyzed by the SPSS V 24 statistical program.

During 2014-2017, the central university library was ravaged , The partially damaged buildings were reconstructed to accommodate the students and regain the academic activities by the beginning of 2018 [11]. College of Medicine and College of Engineering were chosen for this study.

Study tools

Sociodemographic variables: sociodemographic data included: age, gender, marital status, socioeconomic status was categorized into 1-poor, 2-fair, 3-good, according to subjective satisfaction with the monthly income. The student's residence was also categorized according to type, condition, house ownership, and location.

The Iraqi version of the Harvard Trauma Questionnaire (HTQ): It is a self-report checklist designed by the Harvard Program for Refugee Trauma (HPRT). It investigates traumatic events, PTSD symptoms and proved efficacy and reliability in measuring the symptoms of PTSD. HTQ has been translated into the Arabic version. HTQ forms included the following: questions related to the type of the trauma in the participant:(intimidation threat, house raid, damage to property, arrest imprisonment, inaccessible health care, and witnessing to torture or killing) to be answered with yes/no response. The form included questions depicting the types of violence experienced by the participants (killing or serious injury, receiving threats, intimidation, kidnapping for ransom, and house raids).(Mollica et al,1992). The victims were categorized into 1-first degree relatives (son and daughter, parent, sibling, grandparents, and spouse)—2-Second-degree relatives (uncle, aunt, cousin), 3-friend and acquaintances. The scale contained 42 questions measuring the frequency and intensity of the trauma. These questions measure the symptoms of a reaction to trauma within a 4-point Likert severity scale (1 no symptoms, 2-sometimes, 3-frequent, 4-most of the times). The first 16 items followed the Diagnostic and Statistical Manual for Mental Disorders (DSM- IV)—the remaining items specify distress related to forcibly conflict-affected communities. PTSD score >2.5 was considered significant for meeting symptoms criteria of PTSD based on instrument standard [13]

Table 1.Sociodemographic characteristics of the Mosul University students

	N	%	
Age (mean± Sd) = 21.64±2.79			
Gender	Male	81	26.6
	Female	224	73.4
Marital status	Single	259	84.9
	Married	46	15.1
Economic status	Poor	13	4.3
	Fair	168	55.1
	Good	124	40.7
Type of residence	Dormitory	14	4.6
	Owning house	232	76.1
	Rented house	52	17.0
	Incumbent	7	2.3
Condition of residence	Comfortable	282	92.5
	Crowded	23	7.5
Location of residence	East bank	43	14.1
	West bank	177	58.0
	Suburbs	68	22.3

RESULTS

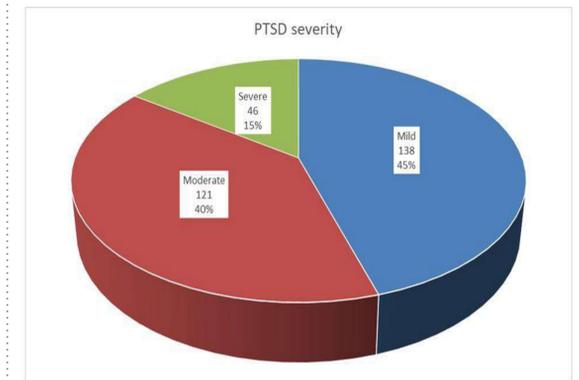


Figure 1. Degree of PTSD symptoms among students at Mosul University measured by Likert scale

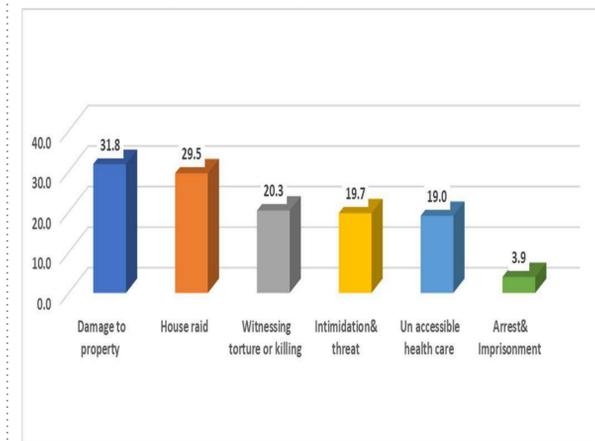


Figure 2. Type of the trauma experienced by the participants who had PTSD.

DISCUSSION

95 students discontinued participating in the survey during data collection phase, and many disagreed to participate from the beginning, which is attributed to a held-on feeling mistrust in authority. The sociodemographic profile of the participants was primarily that of single, healthy, educated youth, predominantly females ,and more than half of them had decent living conditions and adequate income. Such characteristics may reflect the "fortunate "portion of society who did not lose their houses or had to leave schooling to make a living. We believe that such demographic characteristics contributed to the unexpectedly low ratio of PTSD: 12% of the participants measured by HTQ. This ratio is similar to what Zubair et al. found on a similar sample [16] But much lower than the 44.7%of secondary students in Mosul city found by Khaleel &Al-Doori [17]

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