

Symptoms of Post-Traumatic Stress Disorder among Persons Returning from Internal Displacement in Baghdad City

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Abstract

Background: Internally displaced populations experience a wide range and a high number of potentially traumatic, repeated, and prolonged adverse events. Worldwide, Post-Traumatic Stress Disorder (PTSD) has become the most common disorder among internally displaced persons (IDPs). It adversely affects the overall quality of life and psychosocial functioning. **Objective:** Assess the prevalence rate of PTSD among persons returning from internal displacement in Baghdad city and determine which type of traumatic experience had the strongest independent effect on PTSD. **Settings:** The present study was conducted in the Al-Karkh directorate which is affiliated with the Ministry of Migration and Displacement in Iraq. **Subjects:** A total of 600 returnees from internal displacement within six months and aged 18 years and above were recruited. **Tools:** A socio-demographic, health status, and traumatic events structured interview schedule, and The PTSD Checklist for DSM-5 (PCL-5) were used. **Results:** Sixty-eight percent of the studied subjects had symptoms of PTSD. The studied subjects who had a family member (s) being killed as a result of violence were the strongest predictor of PTSD ($\beta = 0.50$, $t = 18.18$, $P < 0.001$). **Conclusion:** The PTSD rate is substantially high among IDPs in Iraq. Violence against family members was the most important predictor of PTSD. **Recommendations:** Mental health services should be provided to reduce the negative effects of trauma and strengthen a community-supportive approach to help returnees reintegrate into society after returning to their place of origin.

Keywords:

Internal displacement, post-traumatic stress disorder, Traumatic events

Introduction

The wars in Iraq and the high frequency of violent events led to a more complex situation as the population faced different types of traumas because of wars, terrorism, and displacements for decades (Alshaw, 2018; Al-Shamsi et al., 2020). Internally Displaced Persons (IDPs) are a group of people who have been forced to leave their homes/places of origin but remain within the borders of their own country (Madoro et al., 2020). Displaced Iraqis are resettled in formal camps and informal settlements across the country (Taha & Sijbrandij, 2021). There were 71.1 million internally displaced people across the world at the end of 2022. Of them, 62.5 million are because of conflict, violence, and human rights violations (Internal Displacement Monitoring Center, 2023).

Forcibly displaced populations experience a wide range and a high number of potentially traumatic, repeated, and prolonged adverse events, mainly interpersonal and sexual violence, witnessing the murder of loved ones, life-threatening injuries, torture, and/or lack of food, water, shelter, and medical care (Taha et al., 2021). Considerable evidence suggests that displaced persons are at disproportionately high risk for trauma and mental illness, such as depression, somatization, and Post-Traumatic Stress Disorder (PTSD) before, during, and after displacement (Georgiadou et al., 2017; Taha & Sijbrandij, 2021). A systematic review of the literature describing the prevalence rates of PTSD among resettled Iraqis displaced to Iraqi Kurdistan showed a PTSD prevalence rate of 48.7% (Richa et al., 2020).

In the upcoming decade, it is anticipated that trauma-related mental illness will have a greater economic impact (Canady, 2018). It raises the risk of physical illness (Jacob et al., 2018) globally, leading to disability, which compromises the quality of life (Vardon-Bounes et al., 2021). Therefore, it is imperative to address PTSD as a public health priority (Nichter et al., 2019). The nurses should properly assess returnees' stress responses and need for help and provide

appropriate nursing intervention to minimize the effect of trauma.

Aims of the Study

- To assess the prevalence rate of PTSD among persons returning from internal displacement in Baghdad City.
- To determine which traumatic experience strongly predicts PTSD.

Research questions

- What is the prevalence rate of PTSD among persons returning from internal displacement in Baghdad city?
- Which type of traumatic experience had the strongest independent effect on PTSD?

Materials and Method

Materials

Design: A descriptive correlational research design was utilized in this study.

Settings: The present study was conducted in the Al-Karkh directorate, which is affiliated with the Ministry of Migration and Displacement in Iraq. Baghdad City consists of two directorates, namely, Al-Karkh and Al-Rusafa. Al-Karkh directorate has been identified as the largest directorate in Baghdad city. After returning from displacement, the returnee typically visits the directorate to obtain services, including assistance in providing food, cash, shelter, etc.

Subjects: The present study included 600 returnees from internal displacement, recruited from the Al-Karkh directorate in Baghdad city.

A sample of the present study was collected using a convenient sampling technique; the subject was selected considering the following Inclusion criteria:

- Both male and female persons returning from internal displacement within six months.
- Aged 18 years and above.

Tools: Two tools were used to collect the data:

Tool I: A Socio-demographic, health status, and traumatic events structured interview schedule.

This tool consists of two parts:

Part I included socio-demographic data of the returnees, such as age, sex, marital status, education etc.

Part II assessed returnees' health status, such as personal history of mental health problems/ illness, personal history of physical illness, suicidal behaviors, use of alcohol and addictive substances, availability of psychological support during internal displacement...etc. In addition, questions were designed to assess cluster A of PTSD (exposure to a traumatic event); such as types and number of traumatic events the individual experienced, length of time in the displacement camps, ...etc.

Tool II: The PTSD Checklist for DSM-5 (PCL-5). This scale was developed by Weathers et al. (2013) to assess the presence and severity of symptoms of post-traumatic stress disorder in the past month. The scale comprises 20 items that are categorized into four symptom clusters that correspond with DSM-5 criteria for PTSD: Cluster B (5 items), Cluster C (2 items), Cluster D (7 items), and Cluster E (6 items). Each item is rated on a 5-point Likert scale ranging from 0-4 (0= not at all true, 1 = a little bit true, 2= moderately true, 3= quite a bit true, and 4= extremely true). Item response values are summed to provide a total score ranging from 0-80, with higher scores denoting greater severity of PTSD symptoms. A standardized Arabic version translated by Ibrahim et al. (2018) with the Iraqi displaced population was administered in the current study. The scale has proven to be valid and reliable on Iraqi (Cronbach's alpha=.85) and Syrian populations (Cronbach's alpha=.89) (Ibrahim et al., 2018; Mahmood et al., 2019; respectively). In the current study, Cronbach's alpha = 0.97.

Method

- Approval from the Research Ethics Committee, Faculty of Nursing, Alexandria University, was obtained before conducting the study. An official

letter from the dean of the Faculty of Nursing, Alexandria University, was sent to the Ministry of Displacement and Migration in Iraq to obtain permission to conduct the current study.

- The pilot study was carried out on 30 returnees from internal displacement (5% of the entire sample). To avoid recruiting the same participants in the actual study, the pilot study was done at the Al-Rusafa directorate to assess and ensure the clarity and applicability of the study tool and to identify any obstacles that may hinder data collection. No modifications were required.
- Participants who visited the Al-Karkh directorate were screened to identify those aged 18 years and above who had returned from their internal displacement within the last 6 months. Eligible participants, who were willing to participate in the study, were interviewed on an individual basis in a private room to apply study tools. The interview was carried out individually in a quiet, private setting to maintain privacy and minimize distractibility.

Ethical considerations

For the security situation in Iraq, participants were reluctant to provide written informed consent. Oral consent was obtained after reassuring them that the data would be anonymous and used only for the purpose of the study. Code numbers rather than participants' names were used on the datasheet. Confidentiality was assured for the collected data, and individual privacy was maintained. The individual's right to refuse to participate in the study and/or to withdraw at any time was considered.

Statistical Analysis

- The data were coded, computerized, and then analyzed following the Statistical Package for Social Science (SPSS) software package version 20. Descriptive statistics were used to describe and summarize the data.
- A single block linear regression analysis was conducted to identify which type of

traumatic experience had the strongest independent effect on PTSD.

- A cut-off of 33 points was used to categorize PTSD into symptomatic and subclinical states (Pham et al., 2021; Weathers et al., 2013).

Results

Table 1 shows the distribution of studied subjects according to their socio-demographic characteristics, health, and internal displacement status. It was noticed that more than half of the studied sample (51.8%) were females. Concerning the age, it appears from this table that the returnees' age ranged from 18 to 74 years, with a total mean of 44.72 ± 13.10 years. Approximately half of them (46.2%) were married. Forty-one percent of the total sample had college and above education, with a total mean of 11.00 ± 5.360 years.

It was found that 74.3% of the studied subjects had physical health problems. The majority of the total sample (90.2%) did not drink alcohol, and/or use addictive substances (97.8%). Only 21.2% and 13.2% reported a previous history of suicidal ideation and/or attempt (s); respectively.

More than half of the studied subjects (54.7%) were living in a camp during their internal displacement, and only 4.8% of the total sample had no shelter. The duration of recent internal displacement ranged from 2 to 7 years with a total mean of 4.58 ± 1.35 years. The average time lapse since returning from internal displacement was 3.62 months. More than half of the studied subjects (54.7%) had received psychological support from their relatives/friends during their internal displacement.

Table 2 shows the percent distribution of traumatic events experienced by returnees from internal displacement. The cumulative number of traumatic events experienced during internal displacement ranged from 1-9, with a total mean of 4.98 ± 1.84 times. The vast majority of the sample (95.2%) had been exposed to or had seen residential areas being shelled, burned, or destroyed. More than three-quarters of the

returnees (77.3%) were forcibly relocated to places where there was no food, clean water, and/or access to health care. Nearly two-thirds of the sample had a family member(s) who had died because of violence (64.3%), and/or 54.8% of the total sample had seen dead bodies festering.

Figure 1 illustrates the present distribution of studied subjects according to their level of symptoms of post-traumatic stress disorder among returnees from internal displacement. More than half of the studied subjects (68%) have been categorized as having symptoms of post-traumatic stress disorder. The total score of the PTSD scale ranged from 8 to 71, with a total mean of 47.24 ± 18.06 .

Table 3 presents types of traumatic events that predict PTSD among Iraqi returnees. Among the nine types of traumatic events, having a family member (s) being killed as a result of violence was the strongest predictor of PTSD ($\beta = 0.50$, $t = 18.18$, $P < 0.001$), followed by witnessing someone being physically harmed ($\beta = 0.23$, $t = 8.32$, $P < 0.001$), and being humiliated and threatened ($\beta = 0.20$, $t = 7.78$, $P < 0.001$), the overall regression model was statistically significant ($F_{\text{chang}} [9.590] = 162.43$, $P < 0.001$).

Discussion

In the current study, the estimated prevalence rate of PTSD was 68%. This may be due to the long-term internal displacement of the Iraqi people, which was accompanied by trauma, violence, and humanitarian crisis, all of which contributed to a sense of fear and insecurity and raised the risk of developing PTSD. Similarly, Pham et al. (2021) reported that among displaced Yazidis in northern Iraq, the rate of PTSD was 69%. Mahmood et al. (2019) reported that the war-affected population in the Kurdistan region of Iraq is characterized by an excessive rate of PTSD which amounted to 60%. Also, the current findings are in line with previous research conducted in developing countries which illustrated that survivors of traumatic events were more likely to have PTSD. For instance,

Musau et al. (2018) documented that the rate of PTSD among IDPs in Camp Nakuru Country, Kenya was 62%. Likewise, Taru et al. (2018) found that 63% of the internally displaced Victims of Boko haram terrorism in north-eastern Nigeria were diagnosed as having symptoms of PTSD. On the contrary, the estimated prevalence of PTSD in the present study is higher than that in the study carried out by Alshawhi (2018) in his cross-sectional study at a major camp for IDPs in the west of Baghdad, Abu-Ghraib (20.8%). Also, the low prevalence rate of PTSD was reported by studies carried out in Georgia (23.3%; Makhshvili et al., 2014), Central Sudan (12.3%; Salah et al., 2013); and Sri Lanka (2.3%; Husain et al., 2011).

The nature of experienced traumatic events could have different influences on the development of PTSD. The results of the current study proved that all traumatic events were significant predictors of PTSD. This result is expected as all traumatic events experienced by IDPs were uncontrollable, unpredictable, and intensified the terror response for IDPs, which triggered symptoms of PTSD. More specifically, in the current study, having a family member being killed as a result of violence was the strongest predictor of PTSD. Doubtless, the actual loss of a loved one and /or perceived loss of self at any time makes the involved individual feel helpless and unable to minimize/ prevent the occurrence of these traumatic events and their associated injury. In addition, a family member being brutally murdered may trigger negative intrusive thoughts like wishes for revenge and retaliation, which may compromise a person's well-being. The same results were reported by Madoro et al. (2020), who found that respondents who had witnessed or experienced the murder of family member(s) and /or friends were twice as likely to develop symptoms of PTSD than those who had not. In sum, results reflect that the trauma itself does not solely influence the onset of PTSD, but also how the individual experiences the events and responds to them afterward.

Conclusion

Based on the results of the present study, it can be concluded that the prevalence rate of PTSD among Iraqi persons returning from internal displacement is substantially high. Having family members murdered was the strongest predictor of PTSD.

Recommendations

Based on the findings of the current study, it can be recommended that:

- Mental health services should be provided to reduce the adverse effects of trauma in primary health care settings.
- Conducting awareness campaigns about the symptoms of PTSD associated with displacement for early intervention and promoting the mental health of returnees.
- Strengthen community supportive services to help returnees express negative emotions, narrate about the traumatic experiences, integrate them into existing schema, and learn how to utilize constructive coping strategies.

Author contributions

Meaad Kareem Halboos, Assistant lecturer: Conception of the study, data collection, assisted in drafting and revising the manuscript.

Samia Mohammed Abd-Eldayem, Professor Emeritus: Supervised the research, provided guidance throughout the study, and conducted the final review of the manuscript.

Amira Youssef Sharaf, Professor: Statistical analyses, interpretation of data, writing the manuscript, and critically reviewing the final draft.

Iman Hussein Alwan, Assistant Professor: Contributed to the study design, supervised data collection, and interpretation. Assisted in writing and reviewing the final draft.

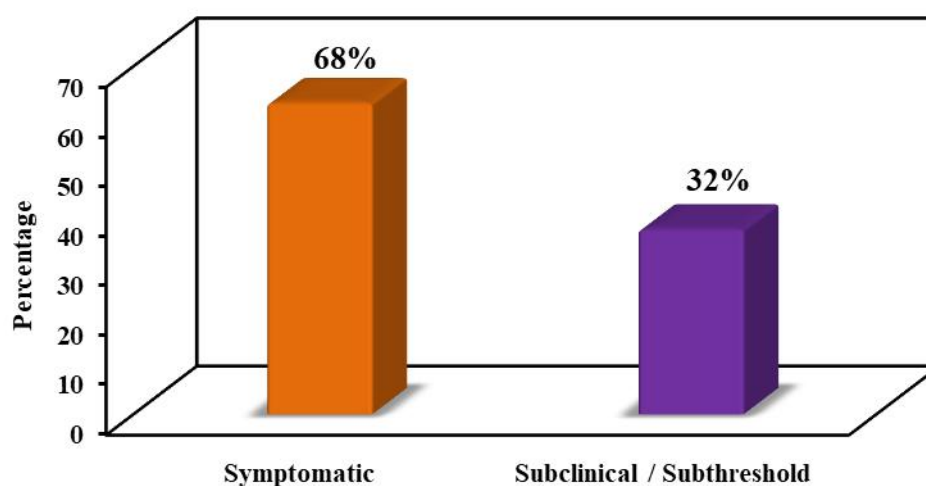
Table 1: Distribution of the studied sample according to their socio-demographic characteristics, health, and internal displacement status.

Characteristics, Health, and Internal Displacement Status		
Socio-Demographic Characteristics	No. (n=600)	%
Sex		
Male	289	48.2
Female	311	51.8
Age (years)		
> 30	97	16.2
30 -	146	24.3
40 -	123	20.5
50 +	234	39.0
Min-Max	18-74	
Mean ± SD	44.72±13.10 Years	
Marital status		
Single	77	12.8
Married	277	46.2
Divorced / Widowed	146	41.0
Education status		
Illiterate	60	10.0
Primary education	145	24.1
Secondary education	148	24.7
Collage and above	247	41.2
Years of education		
Min-Max	0-16	
Mean ± SD	11.00±5.360 Years	
Health Status		
Presence of physical health problems		
Yes	446	74.3
No	154	25.7
Use of alcohol		
Yes	59	9.8
No	541	90.2
Use of addictive substances		
Yes	13	2.2
No	587	97.8
History of previous suicidal ideation		
Yes	127	21.2
No	473	78.8
History of previous suicidal attempt(s)		
Yes	79	13.2
No	521	86.8
Internal Displacement Status		
Place of residence during internal displacement		
Camp	328	54.7
With relatives	155	25.8
With friends	88	14.7
No Shelter	29	4.8
Duration of recent internal displacement		
< 4 years	156	26.0
4 years	158	26.3
5 year	145	24.2
6 years or more	141	23.5
Min-Max	2-7 years	
Mean ±SD	4.58 ±1.35 years	
Time-lapse since returning from internal displacement		
< 3 months	124	20.7
3 ≤ 6 months	476	79.3
Mean ±SD	3.62±1.31 months	
Psychological support during internal displacement		
Yes	328	54.7
No	272	45.3

Table 2: Percent distribution of traumatic events experienced by returnees from internal displacement

Types of Traumatic Events	No. *(n=600)	%
1. Forcibly displaced to an area with a lack of food, clean water, and/or lack of access to healthcare	464	77.3
2. Property looted and confiscated	274	45.7
3. Being imprisoned	119	19.8
4. Witnessed rotting corpses	329	54.8
5. Experienced physical harm (beating, knifing)	168	28.0
6. Witnessed someone being physically harmed (beating, knifing, etc.)	269	44.8
7. Being humiliated and threatened	245	40.8
8. Exposed to/witnessed shelling, burning, or destruction of residential places	571	95.2
9. Having family members being killed because of violence	386	64.3
Cumulative number of traumatic events	1-9	
Min-Max	4.98 ±1.84 times	
Mean ±SD		

* One response was not mutually exclusive

**Figure 1: Level of symptoms of post-traumatic stress disorder among returnees from internal displacement****Table 3: Types of experienced traumatic events during internal displacement as a predictor of PTSD among Iraqi returnees.**

Predictors	B	B (SEB)	β	t. test
1. Forcibly displaced to an area with a lack of food, clean water, and/or lack of access to healthcare	5.78	1.07	0.13	5.42***
2. Property looted and confiscated	-2.64	0.85	-0.07	-3.09**
3. Being imprisoned	2.37	1.26	0.52	1.89*
4. Witnessed rotting corpses	6.07	0.82	0.17	7.44***
5. Experienced physical harm (beating, knifing)	4.12	1.16	0.10	3.56***
6. Witnessed someone being physically harmed (beating, knifing, etc.)	8.15	0.98	0.23	8.32***
7. Being humiliated and threatened	7.50	0.96	0.20	7.78***
8. Exposed to/witnessed shelling, burning, or destruction of residential places	8.81	1.92	0.11	4.59***
9. Having family members being killed as a result of violence	18.71	1.03	0.50	18.18***
Adjusted R ²	0.71			

*P<0.05; **P<0.01; ***P<0.001

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