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Kidnapping and Mental Health in Iraqi Refugees: The Role of Resilience

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Abstract

Although kidnapping is common in war-torn countries, there is little research examining its psychological effects. Iraqi refugees (N = 298) were assessed upon arrival to the U.S. and 1 year later. At arrival, refugees were asked about prior trauma exposure, including kidnapping. One year later refugees were assessed for post-traumatic stress disorder (PTSD) and major depression disorder (MDD) using the SCID-I. Individual resilience and narratives of the kidnapping were also assessed. Twenty-six refugees (9 %) reported being kidnapped. Compared to those not kidnapped, those who were had a higher prevalence of PTSD, but not MDD, diagnoses. Analyses examining kidnapping victims revealed that higher resilience was associated with lower rates of PTSD. Narratives of the kidnapping were also discussed. This study suggests kidnapping is associated with PTSD, but not MDD. Additionally, kidnapping victims without PTSD reported higher individual resilience. Future studies should further elucidate risk and resilience mechanisms.

Keywords

Kidnapping; Refugees; Resilience; Posttraumatic stress disorder; Depression

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Background

Between 2007 and 2013, approximately 85,000 Iraqi refugees arrived in the U.S. [1]. By definition, refugees are forced to relocate due to natural disaster, war, or fear of persecution [2] and are at increased risk of trauma-associated mental health outcomes such as post-traumatic stress disorder (PTSD) and major depressive disorder (MDD) [3–5]. To date, most studies have focused on the mental health effects of aggregate exposure to war-related traumas such as torture, mass violence, and discrimination [6–12]. Recent research, however, indicates that different types of trauma have different mental health effects [13–15]. The present paper examines a relatively common but understudied specific, potentially high-intensity trauma that can occur during war—kidnapping—and its association with post-relocation psychopathology among refugees.

Kidnapping is defined as seizing and detaining and/or transporting a person by unlawful force or fraud, often with a demand for ransom [16]. Kidnapping to obtain ransom has become a common practice by gangs and some insurgent political factions in Iraq to finance their operations [17]. The self-reported percentages of Iraqi refugees falling victim to kidnapping has ranged from 6 % in one study [18] to 8.8 % in another [19]. Incidents of civilian abduction reached an average of 40 kidnappings a day immediately after the U.S. invasion of Iraq [20].

Conceptual Framework

Kidnapping, Resilience and Mental Health

In the kidnapping research to date, an important but unanswered question is, why do some, indeed most, kidnapping victims *not* suffer from mental health problems? One would imagine that being kidnapped is an exceptionally high-intensity traumatic event, inducing feelings of helplessness, horror, and fear for one's life. That some kidnap victims developed poor mental health is an informative descriptive finding, but it does not elucidate why the majority of the persons remain mentally healthy after such a traumatic event.

In a review paper, Alexander and Klein [21] suggested the need to examine how individual characteristics, such as resilience, account for protection from psychopathology following kidnapping. Generally, resilience encompasses positive adaptation and an ability to "bounce back" after negative or traumatic experiences [22] and is thought to reflect a dispositional hardiness that is related to, but distinct from, other personality traits [23, 24]. Alexander and Klein proposed that individuals who are resilient may have better coping strategies and mental health after the kidnapping event, yet no research has specifically examined the impact of resilience on mental health after kidnapping. Recent research has found resilience may protect against psychological disorders resulting from exposure to trauma such as mass violence or deportation under life-threatening circumstances [25]. Additional research has found an inverse association between resilience and mental health problems among victims of natural and man-made disasters [26–29]. Thus, there is evidence to suggest resilience may serve as a protective factor for good mental health among those exposed to traumatic events, but this trend has not been explored in victims of kidnapping.

Of the few articles that have focused on the psychological consequences of being kidnapped, one found that of 24 victims of kidnapping, 46 % of were diagnosed with PTSD and 37.5 % with MDD [30]. Two other studies reported that both the victims and their families reported PTSD-type symptoms several months after the release of the kidnapping victim [31, 32]. It is important to note, however, several ways in which these studies could be expanded. First, no study has compared a kidnapped group with a non-kidnapped comparison group, thus allowing for isolation of the specific mental health effects of kidnapping. Second, prior studies were carried out on resident civilians who ultimately returned to their homes, not refugees who were ultimately forced to relocate to a new host country after the kidnapping episode. Kidnapped refugees not only have to cope with the kidnapping, but also have to manage additional stressors such as acculturation and being forcibly displaced to a new country. Finally, all prior research has examined kidnapping in exchange for ransom or extortion (e.g., [33]). Yet, not all kidnappers are concerned with ransom. As detailed by Alexander and Klein [21], kidnapping can occur for a number of reasons including political turmoil, competition among religious factions, publicity, a moral sense of retribution, or ransom.

Another research area that remains under-explored is the role of event-related characteristics (e.g., duration of captivity, physical harm/torture) on the mental health of kidnapping victims. To date, only one study has addressed this issue with results indicating neither the age of the victim at the time of kidnapping nor the duration of captivity was predictive of PTSD; however, torture in conjunction with kidnapping did predict PTSD [30]. Given the paucity of research in this area, the present study seeks to examine how event-related characteristics relate to PTSD and MDD diagnoses in kidnapping victims.

Overview and Hypotheses

This paper aims to expand upon the existing kidnapping studies in several ways. First, our study examines a cohort of refugees who were all exposed to pre-migration trauma, but compares those who had been kidnapped with those who had not. Given the limited prior findings in this area, it was hypothesized that those who were kidnapped would report worse mental health (i.e., a greater proportion of PTSD and MDD diagnoses) than those who did not have a history of kidnapping. Second, individual characteristics (e.g., resilience) and event-level characteristics (e.g., days spent in captivity) were examined to evaluate differences in mental health outcomes among those who had been kidnapped. It was hypothesized that those without a PTSD and/or MDD diagnosis would have the highest resilience. Finally, refugee descriptions of the kidnappings were examined, which allowed us to explore themes among those kidnap victims who developed psychopathology compared to those who did not. Examination of the kidnapping descriptions is novel and allowed for a more nuanced understanding of the kidnapping event, individual characteristics, and mental health.

Methods

Participants and Procedures

Data were collected from 298 adult Iraqi refugees who were randomly selected for participation from the population of Iraqi refugees who arrived in southeast Michigan between October 2011 and August 2012. Most (89 %) of the refugees were Iraqi Chaldean Christians (n = 266), 9 % were Arab (n = 26), 1 % were Kurdish (n = 3), and 1 % were Armenian (n = 3). A total of 26 refugees from the pool of 298 (8.7 %) reported being kidnapped or taken hostage.

Recruitment—Participants were recruited with the collaboration of three resettlement agencies in metropolitan Detroit. An Arabic-speaking member of the research team attended all orientation meetings for newly-arrived refugees during the study recruitment period and presented information about the research study orally. Those refugees potentially interested in participating provided written consent allowing researchers to contact them. A computer generated random sample of 50–70 % of those who were interested was selected each week, depending on the number of arrivals. In total, out of 501 interested and eligible refugees, 306 cases (61 %) were randomly selected. These individuals were contacted by a member of the research team and given both oral and written information about the study; 98 % of them (n = 298) chose to participate.

Interviews—A bilingual Arabic-English psychiatrist conducted structured interviews face-to face with participants, with interviews taking place in participants' homes, workplaces, community organizations, or other locations in the local community. Refugees were interviewed on two occasions. The first interview, at baseline, occurred, on average, about 1 month after arrival to the U.S. ($M_{\text{months in U.S.}} = 1.17$, $SD = 1.15$, range <1–4.27 months). The second interview, at follow-up, occurred, on average, nearly 1 year after arrival to the U.S. ($M_{\text{months in U.S.}} = 12.72$, $SD = 1.22$, range 10.80–16.23 months). Attrition over the year was very low; only seven participants were lost from baseline to follow-up (n = 291; 97.65 % retention rate).

Pre-displacement trauma, including the occurrence of kidnapping, was assessed at baseline. All other variables were assessed at follow-up. Use of the follow-up for mental health measures allowed the psychiatrist to build rapport with the participants and allowed for a more stable assessment of post-displacement mental health; that is, the mental health assessments were not affected by the rapidly changing context of having just arrived to the U.S. days or weeks before.

The Human Investigation Committee at Wayne State University, Detroit, Michigan, approved the study. Participants provided informed consent prior to the baseline interview and received $35 compensation following each interview.

Measures

Socio-demographic variables included age, gender, marital status, and educational background. With the exception of the Harvard Trauma Questionnaire (HTQ) [34], which

was already available in Arabic, all measures were translated to Arabic and then back-translated to English to ensure accuracy of language.

Pre-displacement Trauma and Kidnapping—Pre-displacement exposure to traumatic experiences and violence was measured at baseline using the traumatic event component of the HTQ, Arabic version [34]. Each participant was asked to respond either “Yes” or “No” as to whether he or she had experienced 39 events such as “lacked shelter” or “witnessed execution of civilians” before coming to the U.S. Two HTQ items addressing kidnapping and being taken as a hostage were used to define kidnapping (i.e., “Before coming to the U.S. were you kidnapped?” and “Before coming to the U.S. were you taken as a hostage?”). Participants responding “Yes” to either of these questions were considered kidnapped. These two questions were removed from the total 39-item HTQ sum score, thus the 37-item HTQ sum score includes all trauma items, except “being kidnapped” and “being taken hostage.” In addition, the HTQ item addressing physical harm (i.e., “Before coming to the U.S. were you physically harmed such as being beaten, knifed, etc.”) was singled out for additional analysis as it reflects possible torture during the kidnapping event.

Kidnapping Event—Those who reported being kidnapped provided additional event details about the kidnapping during the follow-up interview. Specifically, all kidnapping victims provided the following: age at kidnapping, time since kidnapping, length of captivity, and a short description of the kidnapping event.

Mental Disorders—Mental disorders were assessed in all participants through structured clinical interviews at follow-up. Past and present PTSD and past and present MDD were assessed using the Structured Clinical Interview for DSM-IV (SCID-I) [35]. A trained psychiatrist administered all SCID interviews.

Psychological Service Utilization—Refugees were asked whether they had utilized psychological services since arrival to the U.S. (baseline) and whether they had utilized psychological services within the last year (follow-up). Scores were calculated such that refugees who reported psychological service utilization at either point were coded as “1” and refugees who had not reported psychological service utilization were coded as “0”.

Resilience—Resilience was measured during follow-up using an 8-item version of The Resilience Scale developed by Wagnild and Young [22]. Respondents rated on a 5-point scale the extent to which they strongly disagree [1] to strongly agree [5] with higher scores indicating higher resilience. Sample items include, “My belief in myself helps me get through hard times” and “I do not dwell on things I can’t do anything about” (for all items see “Appendix”). Prior researchers have used this scale to measure resilience in refugee populations [36], including resilience in Iraqi refugees [25]. Additionally, The Resilience Scale ranks among the highest in content validity and construct validity when compared to 18 competing resilience scales [37]. In this sample, Cronbach’s alpha for the resilience measure was .90, and principal axis factor analysis indicated all items loaded on the same factor, which accounted for 43.56 % of the variance.

Data Analyses

Assessment of the effect of kidnapping on mental health was examined using two methods. First, logistic regression was used to examine whether kidnapping status (kidnapped or not) pre-displacement was significantly associated with diagnosis of PTSD or MDD 1 year after arrival in the U.S. These analyses included all the refugees and allowed for comparison of the specific effects of kidnapping on mental health compared to those who had not been kidnapped. Second, to examine variations in mental health among kidnapping victims, those kidnapped refugees who received a PTSD diagnosis were compared to those who were not diagnosed with PTSD using Chi square statistics for categorical variables and *t*-tests for continuous variables. Finally, refugee descriptions of specific kidnapping events were qualitatively examined for recurrent themes and characteristics and compared between kidnapping victims who were diagnosed with PTSD and those who were not diagnosed. Significance was set to a 2-tailed p value <.05. All statistical analyses were conducted using IBM SPSS version 22.0.

Results

Descriptive statistics are presented in Table 1. Refugees reported a mean of 12.41 traumatic experiences pre-displacement to the U.S. Approximately 9 % (n = 26) had been kidnapped, 4 % received a PTSD diagnosis, and 3 % were diagnosed with MDD.

Logistic regression was used to determine whether PTSD or MDD diagnosis was significantly predicted by being kidnapped. Results indicate that those who were diagnosed with PTSD were significantly more likely to have been kidnapped (Table 2). However, those with MDD were not more likely to have been kidnapped (Table 3).

Seven of the refugees diagnosed with PTSD were kidnapping victims (63.63 % of all PTSD cases). Table 4 compares individual and event-related characteristics between kidnapped refugees with a PTSD diagnosis (n = 7) and those without (n = 19). Kidnapping victims with PTSD did not differ from those without PTSD on gender, marital status, education, current age, pre-displacement trauma, being physically harmed, age at kidnapping event, years since kidnapping, and time spent in captivity. However, those with a PTSD diagnosis were significantly more likely to report psychological service utilization since arriving to the U.S. Additionally, those without a PTSD diagnosis had significantly higher resilience scores than their PTSD-diagnosed kidnapped peers ($p < .001$, Cohen's $d = 2.40$).

All kidnapping victims provided a brief summary of the event during the follow-up interview. Descriptions of the kidnapping, which were recorded by the psychiatrist interviewer, PTSD and/or MDD diagnosis, and resilience scores are presented in Table 5. Examination of the descriptions revealed that over 75 % (n = 20) of the 26 kidnapping victims described being beaten, tortured, physically assaulted, or maltreated. Over one-third of the kidnapping victims (n = 10) reported being kidnapped or pursued because of their religion or for religion-related activities, such as selling alcohol in a predominately Muslim country. Furthermore, 10 (38 %) victims reported having been kidnapped for ransom, with 9 of these individuals reporting ransom being paid for their release. Over 25 % (n = 7) of the

kidnapping victims reported being forced to leave their residence, change their profession/business, or leave Iraq because of the kidnapping.

Examination of the descriptions of those diagnosed with PTSD compared to those who were not diagnosed with PTSD revealed several trends. First, although 38 % of those kidnapped (n = 10) reported being kidnapped for religious reasons, only 14 % (i.e., 1 of 7) of those diagnosed with PTSD reported being kidnapped for religious reasons. Second, 2 of the 3 women with PTSD were also diagnosed with MDD. Both of these women were sexually assaulted during the kidnapping; in their descriptions this is referred to as “tried to rape her” and “molested her” (Table 5).

Discussion

This study compared mental health outcomes and resilience between refugees with and without a history of kidnapping. Among those who had been kidnapped, more than one quarter (27 %, n = 7) were diagnosed with current PTSD whereas those who were not kidnapped only had a 1.5 % diagnosis rate (4 of 255), supporting the hypothesis that being kidnapped is a risk factor for PTSD. Furthermore, kidnapped individuals who did not develop PTSD had resilience scores that were 35 % higher than kidnapping victims with PTSD. Other possible explanatory variables (e.g., length of captivity, number of traumatic events experienced, physical harm, education) were not associated with the development of PTSD in those who had been kidnapped. Finally, examination of the kidnapping descriptions indicated that many of the kidnapping victims reported being beaten, persecuted for their religion, and being kidnapped specifically for ransom. Review of the descriptions also suggests that the victims who were diagnosed with PTSD were more likely to be kidnapped for non-religious, seemingly indiscriminate reasons. In addition, two of the three women who were kidnapped reported being sexually assaulted, with both women being diagnosed with PTSD and MDD.

New Contribution to the Literature

Previous research examined PTSD and MDD in 24 victims of kidnapping for ransom in Sardinia and found that the prevalence of PTSD and MDD diagnoses were 45.9 and 37.5 %, respectively [30]. The current findings are in line with these previous results, indicating that kidnapping was more strongly associated with PTSD than MDD diagnoses. The current study, however, compared individuals who had been kidnapped to those who did not have a history of kidnapping. As such, results from the current study allow for isolation of the specific effects of kidnapping on mental health.

A number of previous studies have focused on the types of pre-displacement traumas suffered by refugees and concluded that type of trauma experienced (e.g., physical trauma to the self, discrimination, etc.) has a stronger relationship to PTSD diagnosis or symptoms than does cumulative trauma exposure (e.g., sum total of all prior trauma experiences) [6, 11, 13]. The current results add to this literature by demonstrating a specific type of trauma, kidnapping, is associated with PTSD diagnosis in this Iraqi refugee sample. Additionally, this is the first study of kidnapping victims to find that those with the greatest need for

mental health services, are reaching out for help. Specifically, kidnapped refugees diagnosed with PTSD and/or MDD were the most likely to utilize psychological care during the first year after arrival.

In this study, kidnapped refugees who reported greater resilience had better mental health outcomes. This first report of such a finding supports the proposal of Alexander and Klein [21] that resilience may serve as a protective factor for psychological health after kidnapping, and adds to the literature linking resilience with better mental health after trauma [25–29]. As suggested by others (e.g., [38]), resilience appears to account for the fact that most individuals who experience a traumatic event do not develop long-term mental health problems. However, the exact mechanisms accounting for this “bouncing back” after extreme adversity remain largely unknown [39]. Ungar [40] suggests resilience can only be understood when one takes both context and culture into account and emphasizes resilience is a combination of both individual capacity and the family/community/culture’s capacity to offer support after adversity. As such, future research examining kidnapping victims should consider community and cultural aspects of resilience as they may be informative in understanding why some of the kidnapping victims remained mentally healthy while others were diagnosed with PTSD.

Why is kidnapping associated with increased PTSD but not MDD in this study? Examination of the kidnapping descriptions reveals that many of the kidnapping victims were abducted quite suddenly, often by armed individuals, and were not released until the family paid some type of ransom. These events involved intense fear of death or harm—processes that are more specific to PTSD [41] than to depression, which typically is precipitated by loss and grief or guilt [42]. It is possible that the acute and threatening aspects of kidnapping trigger PTSD, at least in those low in resilience, whereas the role of the family in paying for ransom contributes to feelings of gratitude or being “saved,” as opposed to depressive feelings of loss, grief, sadness, or guilt.

Two aspects of the descriptions of the kidnappings of those diagnosed with PTSD are provocative. First, among those with PTSD, an additional diagnosis of MDD was made for only two participants, both of whom were female and both of whom were sexually assaulted during the kidnapping. Although sexual assault is traumatic in all contexts, certain cultural stigmas and practices in the Middle East related to sexual purity may serve to amplify the victim’s shame, guilt, and possible social rejection [43], which can, in turn, precipitate depression. A second trend noted in the kidnapping descriptions is that religion may be a protective factor against the development of PTSD. Although 10 of the victims (38 %) reported being kidnapped for religious reasons, only one of the seven who developed PTSD (14 %) was kidnapped for religious reasons. Research has found that suffering for a cause or closely held belief is protective against the development of mental health problems [44, 45]. Also, the religious community might offer greater support to those kidnapped for practicing their religions, which could serve as a buffer against the development of mental health problems.

Strengths and Limitations

The most important limitation to the study is the relatively small sample of kidnapping victims. Of course, kidnapping is a relatively rare event, so large samples are not easily attained. Another potential limitation is that the refugees were interviewed about 1 year after relocation to the U.S., during a period that some have referred to as the initial *euphoric* phase, when the focus of the individual is on the relative safety and happiness after leaving a traumatic and troubling situation [46]. As such, the participants may have underreported psychological symptoms and been less than eager to elaborate on previous sufferings. Similarly, the participants were exposed to many potentially traumatic events and trauma exposure other than being kidnapped may have contributed to PTSD and/or MDD diagnoses. Reports of kidnapping and pre-displacement trauma were retrospective, with the attendant biases of retrospective reports, psychological service utilization was only assessed for the first year after arrival, and participants' resilience and mental disorders were assessed cross-sectionally, which does not allow us to establish causation.

This study has a number of important strengths. First, from this large, randomly selected pool of Iraqi refugees (N = 298), 8.7 % reported a history of kidnapping or being taken hostage. This prevalence is consistent with the rates reported in prior studies of 6 and 8.8 % [18, 19], suggesting that this sample is representative and this approach to defining kidnapping has validity. Second, this is the first study to use a non-kidnapped comparison group to determine the specific mental health effect of kidnapping. This is also the first study to examine the effect of resilience on mental health outcomes after kidnapping. Whereas previous research asked *if* kidnapping victims had poor mental health, the current study examined both *if* and *why* kidnapping victims have poor mental health. The strength of examining the *why* (e.g., individual characteristics) lies in its potential for addressing the resulting mental health problems. Treatment programs cannot change whether or not a refugee was kidnapped pre-displacement or if they were tortured, but programs might be structured to boost resilience in those who have experienced a kidnapping.

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Appendix: The Resilience Scale

Items from The Resilience Scale used in the current study.

1. I feel proud that I have accomplished things in my life.
2. I feel that I can handle many things at a time.
3. My belief in myself helps me get through hard times.
4. In an emergency, I'm someone people can rely on.
5. Sometimes I do things whether I want to or not.
6. My life has meaning.
7. I do not dwell on things I can't do anything about.
8. When I'm in a difficult situation, I can usually find my way out of it.

Table 1

Demographics, kidnapping and trauma exposure, mental health outcomes, and resilience for all refugees at follow-up (n = 291)

Gender n (%)	
Female	133 (45.70)
Male	158 (54.30)
Marital status n (%)	
Not married	136 (46.70)
Married	155 (53.30)
Educational level n (%)	
Less than high school	138 (47.42)
High school or higher	153 (52.58)
Current age *M* (SD)	34.30 (11.37)
Pre-displacement trauma[a] *M* (SD)	12.41 (3.34)
Kidnapping n (%)	
No	262 (90.00)
Yes	26 (8.90)
PTSD diagnosis[b] n (%)	
No	280 (96.20)
Yes	11 (3.80)
MDD diagnosis[c] n (%)	
No	282 (96.9)
Yes	8 (2.70)
Psychological service use[d] n (%)	
No	265 (91.07)
Yes	26 (8.93)
Resilience *M* (SD)[e]	30.63 (3.31)

Although the initial sample included 298 refugees, 7 were lost over the 1-year measurement period. This table describes refugees only who were assessed at follow-up. Percentages may not add up to 100 % due to missing data

[a]Harvard Trauma Questionnaire (HTQ) theoretical range from 0 (no trauma) to 37 (high trauma). Note that the two questions addressing “being kidnapped” and “taken hostage” were removed from the checklist prior to creation of sum score

[b]PTSD diagnosed by SCID

[c]MDD diagnosed by SCID

[d]Psychological Service Use since arriving to the US

[e]Resilience theoretical range from 8 (low resilience) to 40 (high resilience)

Table 2

Logistic regression predicting PTSD diagnosis at follow-up (N = 291)

	OR (95 % CI)
Gender (reference = male)	1.84 (0.21, 15.85)
Marital status (reference = married)	0.42 (0.06, 3.12)
Education (reference = ≤high school)	0.62 (0.60, 6.49)
Age	0.99 (0.92, 1.09)
Pre-displacement trauma exposure[a]	1.19 (0.88, 1.63)
Kidnapped (reference = not kidnapped)	25.57** (3.37, 193.94)
Resilience[b]	0.66*** (0.53, 0.82)

CI confidence interval, *OR* odds ratio

* $p < .05$;

** $p < .01$;

*** $p < .001$

[a] Harvard Trauma Questionnaire (HTQ) theoretical range from 0 (no trauma) to 37 (high trauma). Note that the two questions addressing "being kidnapped" and "taken hostage" were removed from the checklist prior to creation of sum score

[b] Resilience theoretical range from 8 (low resilience) to 40 (high resilience)

Table 3

Logistic regression predicting MDD diagnosis at follow-up (N = 291)

	OR (95 % CI)
Marital Status (reference = married)	2.67 (0.41, 17.44)
Education (reference = ≤high school)	1.16 (0.10, 13.49)
Age	1.08 (0.98, 1.18)
Pre-displacement trauma exposure[a]	1.01 (0.80, 1.29)
Kidnapped (reference = not kidnapped)	0.45 (0.03, 6.07)
Resilience[b]	0.59 *** (0.45, 0.77)

Gender was not included in this analysis as all individuals diagnosed with MDD were female

CI confidence interval, *OR* odds ratio

* $p < .05$;

** $p < .01$;

*** $p < .001$

[a] Harvard Trauma Questionnaire (HTQ) theoretical range from 0 (no trauma) to 37 (high trauma). Note that the two questions addressing "being kidnapped" and "taken hostage" were removed from the checklist prior to creation of sum score

[b] Resilience theoretical range from 8 (low resilience) to 40 (high resilience)

Table 4

Demographics, kidnapping details, and resilience for those who were kidnapped: PTSD diagnosis versus no PTSD diagnosis (N = 26)

	PTSD[a] (n = 7)	No PTSD (n = 19)	p[b]
Gender n (%)			.29
Female	3 (42.9)	3 (15.8)	
Male	4 (57.1)	16 (84.2)	
Marital status n (%)			1.00
Not married	4 (57.1)	10 (52.6)	
Married	3 (42.9)	9 (47.4)	
Educational level n (%)			.63
Less than high school	6 (85.7)	13 (68.4)	
High school or higher	1 (14.3)	6 (31.6)	
Current age *M* (SD)	35.57 (8.87)	34.95 (12.57)	.91
Pre-displacement trauma[c] *M* (SD)	13.00 (4.58)	13.58 (3.20)	.72
Physical harm[d] n (%)			.29
Yes	5 (71.4)	17 (89.5)	
No	2 (28.6)	2 (10.5)	
Age at kidnapping *M* (SD)	32.14 (8.45)	29.73 (12.68)	.65
Years since kidnapping *M* (SD)	5.86 (1.35)	7.58 (5.38)	.42
Length of captivity (days) *M* (SD)	4.87 (5.03)	119.54 (421.18)	.48
Psychological service use[e] n (%)			.006
Yes	5 (71.42)	2 (10.53)	
No	2 (28.57)	17 (89.47)	
Resilience[f]	23.14 (5.18)	31.42 (2.87)	<.001

[a] PTSD Diagnosed by SCID. As PTSD and MDD diagnosis were completely comorbid in this sample (i.e., 7 individuals diagnosed with PTSD and 2 of those also diagnosed with MDD), PTSD diagnosis is used to distinguish the groups

[b] Fisher's Exact Test was used for categorical comparisons. Independent samples t-test was used for continuous comparisons. Nonparametric comparisons (Mann–Whitney *U*) were also conducted for the continuous comparisons and revealed the same results

[c] Harvard Trauma Questionnaire (HTQ) theoretical range from 0 (no trauma) to 37 (high trauma). Note that the two questions addressing "being kidnapped" and "taken hostage" were removed from the checklist prior to creation of sum score

[d] HTQ single-item assessing whether the refugee had been beaten, knifed, or physically harmed prior to arrival in the US

[e] Psychological Service Use since arriving to the US

[f] Resilience theoretical range from 8 (low resilience) to 40 (high resilience)

Table 5

Details about the kidnapping event for each of the 26 kidnapped refugees, as a function of PTSD and MDD diagnosis

Short description	Resilience[a]
PTSD and MDD diagnosis	
While going to church was kidnapped by armed men for 10 days. Beaten, insulted, tortured, and they tried to rape her, then released her after getting ransom	17
Kidnapped by armed men and kept for a few hours. They beat her, threatened and molested her, but then she was released	18
PTSD diagnosis	
Abducted by 4 armed men, kept 6 days, beaten and insulted then released	32
Stopped in the road by armed men, burned and hit on the head. Broke his knee (still has problems with knee) and had to go to hospital for burns	22
Kidnapped while walking home from work, beaten, and threatened. Released after 2 days, forced to leave house	27
Kidnapped by armed men for ransom. Taken and blindfolded, cursed at and beaten, then released after 3 days after family paid ransom. Then forced to leave residence	24
Kidnapped by a gang of men while he was traveling, and kept 13 days. Beaten, teeth broken, and humiliated until ransom was paid, then he was released	22
Neither PTSD or MDD	
Grabbed from his house door, kept for 2 h, beaten on his head, and threatened to evacuate his house	31
While in a taxi was stopped in the road by armed men and beaten, lost consciousness. Held kidnapped for less than an hour, and told to stop teaching at Christian school	31
Kidnapped and incarcerated for almost a year. They tried to get ransom. He escaped during a gang fight with other armed men	32
Kidnapped from the road by armed men and put in an unknown place for 8 days. Tied and beaten, left with broken teeth from beating. Released after family paid ransom. Ordered to leave Iraq	33
Four armed men (religious fanatics) entered his house, insulted him, and took him to some unknown place but released him after 1 h. Threatened him and forced him to leave his residence	29
Kidnapped by armed men from his house. Kidnapped because he sold liquor and he is a Christian. His shop was burned down and he was kept for 7 days. Threatened to be killed but later saved by American troops	27
Detained by armed men because he sold liquor, which is against Islamic law. Beaten severely on his head, with many teeth broken and broken nose. Threatened that he would be killed, and then they eventually left him	24
Was kidnapped by armed religious fanatics while he was leaving church. Kept 3 days and beaten until he renounced his faith and convinced the kidnappers he had converted to Islam then he was released	32
Armed men forced him into a car. He was kept for 17 days, beaten, insulted, but then released after paying ransom	35
Kidnapped while going to school. Kept for 5 days, beaten, then released after family paid ransom	33
Kidnapped and held in a car trunk. Kept prisoner for 9 days, maltreated and threatened many times to be killed. Eventually released and saved by American troops	32
While walking she was dragged into the car by three armed men, beaten, threatened to wear a veil, and slapped, then thrown from the car after 15 min	37
Taken as a prisoner of war for 5 years, tortured, and forced to change his religion	31
Abducted by armed men from his house, held captive for 5 days. Maltreated, tortured, but released after family paid ransom	32
Kidnapped by armed men, kept 5 days, threatened to be killed, and then saved by the army	33
Kidnapped from his shop (liquor store) by armed people and kept captive for 2 days. Maltreated, tortured, and then released after family paid ransom	32
Kidnapped and kept imprisoned by a gang for 15 days but he escaped while being transferred	33
Kidnapped by armed men, beaten, insulted, and threatened. Kept for 5 days and released after ransom was paid by his family	28
Armed men tried to kidnap her while coming out of church but she was saved before anyone could injure her	32

[a]Resilience theoretical range from 8 (low resilience) to 40 (high resilience)