

# Complex Post Traumatic Stress Disorder (CPTSD) for University Students

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## Abstract

Complex posttraumatic stress disorder is a diagnostic construct which tries to capture complex trauma reactions in face protracted and repeated psychological trauma. These reactions which compromise specific symptom constellation may be missed if there is focus on classical posttraumatic syndrome. Iraqi population endured four decades of instability which created atmosphere of protracted repeated trauma situation which necessitate examining complex trauma reactions. The aim was to create a tool for examining complex trauma reactions within Iraqi population and examining rates and nature of these reactions in a sample of Iraqi population. Random sample of medical students were examined for exposure to traumatic events and complex psychological trauma reactions. The tool used for examining complex trauma was made according to criteria of disorders of extreme stress not otherwise specified; validity and reliability of the tool was verified and rates of traumatic events and rates and nature of reactions were examined. Most of participants confirmed exposure to more than one traumatic event and 25% fulfilled criteria of complex trauma syndrome. Rates of complex trauma reactions are high in this study. Large population studies are needed to confirm this fact, which means extensive efforts are needed at clinical and social levels for proper help to be provided to traumatized individuals.

**Keywords:** CPTSD, PTSD, DESNOS

## Introduction

Posttraumatic stress disorder PTSD was first introduced as psychiatric diagnosis in DSM III at 1980. (1) Its introduction was based on available literature about psychological trauma of adults at circumstances of war and natural disasters and over later years research has confirmed PTSD as diagnostic category and supported its validity, reliability and applicability to clinical demands of trauma population. In the same time, such research continuously brought new looks at the diversity of psychological trauma reactions. (2) The aims of this study are to build new questionnaire for complex psychological trauma reaction suitable for Iraqi

population according to the six domains of DESNOS. Another aim is to detect the rates of complex trauma syndrome and its constituting symptoms in a sample of Iraqi medical students.

## Literature Review

While the classical PTSD concept requires the triad of trauma re-experience, emotional numbing and over arousal, an increasing amount of literature found that such triad do not capture many other psychological reactions of trauma and reactions to trauma were found to be variable according to developmental age at exposure as well as to nature, frequency, duration and context of the trauma. (3) Patients exposed trauma at early age or those exposed to frequent serious traumatic events of long duration or patients traumatized within the context of intimate relationship were found to show more complex reaction than the initial triad introduced with PTSD. (2) It was found that co morbidity was common among patients with PTSD. (4) Questions were

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aroused whether this indicates that PTSD could lead to other conditions or there is need to review the diagnostic construct of PTSD. Soon then the concept of complex trauma reactions was described. <sup>(5)</sup> DSM IV delineated a syndrome named disorders of extreme stress disorders not otherwise specified (DESNOS) <sup>(6)</sup> This syndrome which was also called Complex posttraumatic stress disorder is composed of six groups of symptoms which are: I alteration of regulation of affect, II alteration in attention and consciousness, III alteration in self-perception, IV alteration in relationship with others, V somatization and VI alteration in system of meaning. <sup>(2)</sup> Although this syndrome was first thought to occur at early age with repetitive traumatic events at context of care giving relationship then the concept was thought to be applicable to repetitive long duration traumas occurring within war situations or under totalitarian political regimes. <sup>(5)</sup> ICD 10 on other hand described long living personality change upon long traumatic stress exposure. <sup>(7)</sup> A recent conceptualization recognizes that more complex cases of PTSD involve deficits in regulating emotional distress that in addition to the core PTSD symptoms, complex presentations are more difficult to treat because they involve acting out, self-harm, and self-destructive relationships and behaviors. <sup>(8)</sup> Although it was thought that complex trauma reactions can develop without necessity for presence of classical trauma syndrome yet recent empirical evidence found that only 8% of DESNOS patients don't fulfill criteria of PTSD. <sup>(9)</sup> For this reason complex PTSD was not included as separate disorder in DSM V while it was included in ICD 11 as disorder fulfilling criteria of both classical and complex trauma symptoms. <sup>(10)</sup> From other perspective it is thought that cultural factors may have role in shaping reaction to psychological trauma and the application of Euro American view of this subject to traditional cultures need further evidence. <sup>(8)</sup> The Iraqi Mental Health survey found low rates of classical PTSD among Iraqi population (INHS 2007). <sup>(11)</sup> Iraqi population sustained long and repetitive traumatic events through long war years and economic sanctions since 1980. The current study proposes that complex trauma reactions could have happened within Iraqi population and possibly overlooked if focus is on classical PTSD as trauma reaction within Iraqi culture. This study tries to examine the presence of complex trauma reaction (DESNOS) among Iraqi population.

## Methodology

*Design:* cross sectional study arranged to examine complex PTSD construct in study subjects

*Sample:* Random sample was made of medical students at Al Nahrain University College of Medicine, Baghdad, Iraq from the academic year of 2018-2019. 131 students from fourth, fifth and sixth classes agreed to participate in the study and were provided with study forms. College adopts 6 years training system and total number of students within the last three classes was 450 students

*Study tools:* Study questionnaire form included three parts

§ *Part one:* demographics; this includes age, gender, marital status and level at medical school

§ *Part two:* include questions about any current or past psychiatric treatment, current physical disease and treatment. Participants who have such experiences were excluded from further analysis of trauma reaction.

§ *Part three:* questionnaire of past traumatic events. It examines the types and rates of variable psychological traumatic events. The questionnaire was already used as part of Iraqi National Mental Health Survey 2007 (INMHS 2007) <sup>(11)</sup>. It includes 27 questions to be answered by yes or no. Exposure to traumatic events was considered a precondition to be involved in further data analysis and 27 participants were excluded from data analysis, as they did not report any exposure to traumatic event while the other 127 were included as they reported such exposure

§ *Part four:* Complex trauma questionnaire: This self-rating questionnaire was based on the six groups of symptoms and criteria needed for DESNOS diagnosis. <sup>(2)</sup> Questions were written according to criteria provided. The questionnaire included 45 items about the six symptom categories. Each of the six items includes variable number of questions to be answered according to the Likert questionnaire format. The 45 items of complex trauma part and the 27 items of the past trauma events part yield a final 72 items questionnaire for this study. The process of validity and reliability of the questionnaire were arranged according to the following steps.

**Validity:** The questionnaire was sent to 7 experts in psychology and psychiatry. Items which got 80% or more agreement among expert were kept as they are. Others needed simple changes according to notes of experts and the whole questionnaire was accepted as it is and was finally composed of 72 items

**Reliability:** Test retest reliability was found to be of 0.79 while alpha Cronbach coefficient was 0.76 for the questionnaire

**Statistical analysis:** SPSS software was used. Percentages, T test for independent variables, Pearson correlation coefficient, alpha Cronbach coefficient, T correlation equation were used at relevant data analysis process

**Results**

1. Questionnaire: aim was accomplished and the final questionnaire is composed of 72 items; 27 being for traumatic events part while 45 items belong to complex trauma symptoms part. validity and reliability was confirmed as mentioned above

2. Rates of traumatic events experience out of the 131 participants, 129 confirmed exposure to one or more traumatic event (98.4 %). Data of these 129 participants were then further examined. The number of traumatic events was variable with one participant having 18 events and one other having 17 events. Rates of other traumatic events are further described in table 1.

**Table 1 number of traumatic events for each participant (total 116)**

| No. of events | No. of participants | No. of events | No. of participants | No. of events | No. of participants | No. of events | No. of participants |
|---------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|---------------------|
| 1             | 5                   | 5             | 10                  | 9             | 6                   | 13            | 3                   |
| 2             | 11                  | 6             | 16                  | 10            | 11                  | 17            | 1                   |
| 3             | 11                  | 7             | 10                  | 11            | 5                   | 18            | 1                   |
| 4             | 10                  | 8             | 11                  | 12            | 5                   |               |                     |

The most frequent event was being concurred, inspected by police, army or coalition forces being experienced by 65.5% of participants while sudden death of relative by killing or accident or heart attack was experienced by 62.9%. Table 2 summarizes the frequency for each event among study sample.

**Table 2 frequency of each traumatic event**

| Event item | No of subjects | %     | Event item | No of subjects | %     | Event item | No of subjects | %     |
|------------|----------------|-------|------------|----------------|-------|------------|----------------|-------|
| 1          | 48             | 0.414 | 10         | 47             | 0.405 | 19         | 5              | 0.043 |
| 2          | 13             | 0.112 | 11         | 5              | 0.043 | 20         | 12             | 0.103 |
| 3          | 8              | 0.069 | 12         | 5              | 0.043 | 21         | 8              | 0.069 |
| 4          | 16             | 0.138 | 13         | 76             | 0.655 | 22         | 0              | 0     |
| 5          | 15             | 0.129 | 14         | 19             | 0.164 | 23         | 66             | 0.569 |

**Cont... Table 2 frequency of each traumatic event**

|   |    |       |    |    |       |    |    |       |
|---|----|-------|----|----|-------|----|----|-------|
| 6 | 51 | 0.44  | 15 | 8  | 0.069 | 24 | 48 | 0.414 |
| 7 | 8  | 0.069 | 16 | 37 | 0.319 | 25 | 73 | 0.629 |
| 8 | 64 | 0.552 | 17 | 5  | 0.043 | 26 | 5  | 0.043 |
| 9 | 64 | 0.552 | 18 | 22 | 0.19  | 27 | 29 | 0.25  |

*Complex trauma:* Of the 129 participants who have experienced traumatic events, 13 were further excluded for presence of psychiatric history or being under psychiatric treatment or having chronic physical disease or treatment. 116 participants were further examined for complex trauma syndrome. As a whole 29 person (25%) of study sample fulfilled the criteria of DESNOS. Of these 73% confirmed the presence of criteria Criterion VI. Of complex trauma, (Alterations in Systems of Meaning), 39% confirmed the presence of criteria Criterion II (Alterations in Attention or Consciousness), 25.3% confirmed the presence of criterion IV. (Alterations in Relations with Others), 25.2% confirmed the presence of criterion V. (Somatization), 25.1% confirmed the presence of criterion I (Alteration in Regulation of Affect and Impulses), and 22.17% confirmed the presence of criterion III (Alterations in Self-Perception). (Table 3)

**Table 3 frequency of each criterion of DESNOS**

| Statistical Analysis | Criteria I. | Criteria II. | Criteria III. | Criteria IV. | Criteria V. | Criteria VI. |
|----------------------|-------------|--------------|---------------|--------------|-------------|--------------|
| Sum of degrees       | 151         | 78           | 133           | 46           | 126         | 146          |
| The Level            | 25.1%       | 39%          | 22.17%        | 15.3%        | 25,2%       | 73%          |

Detailed statistical analysis revealed no significant relationships between rates of DESNOS and gender, marital status. (Tables 4, 5)

**Table 4 rates of DESNOS according to gender (Pearson Chi square value 2.125, df 1, P value 0.145)**

| Gender        | Total | No DESNOS |      | Have DESNOS |      |
|---------------|-------|-----------|------|-------------|------|
|               |       | count     | %    | count       | %    |
| Male          | 75    | 53        | 70.7 | 22          | 29,3 |
| Female        | 41    | 34        | 82.9 | 7           | 17.1 |
| Total a count | 116   | 87        | 75   | 29          | 25   |

**Table 4: Rates of DESNOS according to marital status (Pearson Chi-Square value 0.066, df 1, P value 0.797)**

|               | Total | No CPTSD |      | Have CPTSD |      |
|---------------|-------|----------|------|------------|------|
|               |       | count    | %    | count      | %    |
| Single        | 90    | 68       | 75.6 | 22         | 24.4 |
| married       | 26    | 19       | 73.1 | 7          | 26.9 |
| Total a count | 116   | 87       | 75.0 | 29         | 25.0 |

### Conclusions

1- The rate of DESNOS found in this study is high (25%). the Iraqi Mental Health Survey IMHS (2006-2007) found the life time and 12 month prevalence of classical PTSD to be 3.9 % and 1.6% within Iraqi society respectively. <sup>(12)</sup> Although the current study's population is restricted to medical students and cannot be representative to whole Iraqi population but the high rate reported may indicate that complex trauma reaction can be wide spread. The current evidence shows that DESNOS is reported in variable rates among patients with classical PTSD <sup>(13)</sup> yet small percent of DESNOS do not suffer from the disorder. <sup>(14)</sup> This notion that complex trauma reactions occur in accompaniment with classical PTSD among traumatized populations is further prompted by evidence which support the validity of ICD 11 CPTSD as sibling yet separate disorder from PTSD. <sup>(15)</sup> The high rates of DESNOS as reported in this study in comparison to IMHS PTSD rates needs then to be explained from other perspective. Although the time interval between 2006 when IMHS was arranged and time of the current study was accompanied by continuous unstable circumstances in Iraq yet whether these circumstances lead to higher rates of PTSD this then need to be confirmed. DESNOS was considered a very useful construct by mental health professionals who have worked with adult non-Western patients exposed to forced migration or torture although there has been little research in this area. <sup>(16)</sup> The DESNOS construct raises questions about whether repeated exposure to trauma lead to a different pattern of symptoms than those included in PTSD and whether DESNOS model is useful in a cross-cultural context. <sup>(8)</sup> DESNOS

emphasizes both dissociation and somatization, two symptoms not included in the DSM-IV PTSD diagnostic criteria that are frequently observed in traumatized non-Western cohorts? <sup>(17)</sup> The relevance of the PTSD diagnosis has been criticized from a cross-cultural perspective as a Euro-American construct that has little relevance to posttraumatic syndromes encountered in traditional societies. <sup>(18)</sup> Somatization and dissociation, two cardinal symptoms of posttraumatic reactions in traditional societies, are missing from DSM-IV diagnostic criteria for PTSD (but not DESNOS). <sup>(17)</sup> The current study shows that most of individuals in the sample had experienced several traumatic events and interestingly both dissociation and somatization are very highly reported. There may be culture-specific idioms of distress that provide a better characterization of posttraumatic distress syndromes found in one ethno cultural context or another. <sup>(19)</sup> The results of the current study suggest that DESNOS can be very common trauma reaction in Iraqi population. One limitation of the current study is that it did not examine possibility of occurrence of classical PTSD within studied sample. Further studies are needed on large-scale population samples to confirm whether DESNOS is common trauma reaction in Iraq and to conclude more whether DESNOS in Iraq occurs as separate diagnostic category regardless presence of classical PTSD syndrome. Findings from these studies can modify the attitude towards the impact of psychological trauma in Iraqi population. The low rates of PTSD in the IMHS were explained by possible inherent resilience present in Iraqi people. <sup>(20)</sup> If DESNOS is proved to be as such highly prevalent then we will need to modify our strategy towards impact of trauma at epidemiological, clinical, social and cultural levels. Improved detection

will help implement necessary treatment strategy that is different from that implemented in classical PTSD. <sup>(8)</sup>

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**Ethical Clearance** – Not required

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