THE PRESENTING SYMPTOMS of POST-TRAUMTIC STRESS DISORDER in IRAQI PSYCHIATRIC PATIENTS

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ABSTRACT

Background: post-traumatic stress disorder (PTSD) is the characteristic symptoms following the psychological traumatic event which is generally outside the range of usual human experience. These involve: re-experiencing the traumatic event, numbing of responsiveness to or reduced involvement with human external world and a variety of autonomic, dysphoric or cognitive symptoms.
Objectives: to estimate the presenting symptoms of PTSD in Iraqi patients.

Methods: this is a cross sectional study that enrolled 140 patients with PTSD who had been attended the outpatient clinic of psychiatric unit at Al-Diwaniyah Teaching Hospital during period between the 1st of March 2009 -1 AUGUST 2009. PTSD diagnosed according to criteria of structural clinical interview for diagnostic and statistical manual of mental disorder text revision (DSM-IV-TR).

Result: this study revealed that 100% patients having PTSD. This is consistent with the conditions found in the DSM-IV-TR. The study also referred to symptoms of accompanying neurotic disorders in the individuals of the sample, such as depressive symptoms (73%), enduring personality changes (59%), generalized anxiety disorder (56%), and adjustment disorder (48%). Delayed form of PTSD was found in 54% of patients. 95 patient out of 140 patient had wish to seek help.

Conclusions: this study proved that the associated disorders, as depression or anxiety, may overlap diagnosis PTSD. The study proved that the symptom of PTSD increased in percentage in the Iraqi patients due to exposing them to three wars, economic embargo, and the present state of terrorism; so it became a problem that needs care and attention of the specialists, and the cooperation of different governmental establishments and civil society organizations.

الخلاصة

خلفية الموضوع:
يعرف اضطراب (عقابيل الشدة النفسية) بأنها كل فرد يتعرض إلى شدة نفسية عظيمة قد يصاب باضطراب عقابيل الشدة النفسية و المتمثلة في تكرار معايشة أو استذكار الموت و الكوابيس الليلية مع إجفال مبالغ فيه مع اجتناب المحفزات التي قد تذكر بالحدث مع زيادة نشاط الجهاز العصبي السمبثاوي.

الأهداف:
لحساب نسبة انتشار أعراض عقابيل الشدة النفسية لدى المرضى العراقيين و مقارنتها مع بقية الدراسات في العالم و لتقييم مختلف العوامل الديموغرافية على نسبة الحدوث.

الطرق:
هذه دراسة مقطعية شملت 140 مريضاً مصاباً باضطراب عقابيل الشدة النفسية عند مراجعتهم العيادة الخارجية للشعبة النفسية في مستشفى الديوانية التعليمي خلال الفترة من الأول من آذار إلى آب لسنة 2009 تم تشخيص الاضطراب طبقاً

لخصائص و معايير المقابلة السريرية الهيكلية للتشخيص و الدليل الاحصائي من الاضطراب العقلي 4 المنقحة. و استخدمت معهم استبيانات لمعرفة آثار الضغوط النفسية و قوائم بأعراض عقابيل الشدة النفسية و الاضطرابات العصابية الأخرى المتعلقة بالشدة النفسية.

النتائج:

أثبتت هذه الدراسة بأن نسبة 100% من المرضى لديهم اضطراب عقابيل الشدة النفسية و هي مطابقة للشروط الموجودة في التصنيف الأمريكي للأمراض النفسية 4 المعدل, و كذلك شارت الدراسة غلى وجود أعراض لبعض الأمراض العصابية المصاحبة الأخرى لدى أفراد العينة مثل داء الكآبة 73%, و التغيرات الثابتة للشخصية 59%, و داء القلق العام 65% و اضطراب التوافق 48%.

الاستنتاجات:

أثبتت هذه الدراسة بأن أعراض مرضى اضطراب عقابيل الشدة النفسية قد ارتفعت نسبتها عند المرضى العراقيين نظراً لتعرضهم لثلاث حروب و أزمة الإرهاب الحالي. فأصبحت تشكل مشكلة تحتاج إلى عناية و اهتمام كبير

1. Introduction

1.1 Our country has been the theatre of three long wars in addition to the long term economical embargo affecting soldiers, children and elderly civilian people. Also the long period of captivity of prisoners of war (POWs) in Iran plays an important role in increasing numbers of chronic PTSD among the POWs.

1.2 Definition

The term Post-Traumatic Stress Disorder (PTSD) first appeared in the third edition of the Diagnostic and Statistical Manual of Mental Disorder (DSM-I11 -) under anxiety disorders. DSM-I11- defined PTSD as follows:

The characteristic symptoms following a psychological traumatic event which is generally outside the range of usual human experience. These involve: re-experiencing the traumatic event, numbing the responsiveness to, or reduced involvement with, the external world and a variety of autonomic, dysphoric or cognitive symptoms. (Am. Psych. Assoc, 2002)[(1)].

1.3 Aetiology

PTSD combines the interaction of many factors including:

a. Type of stressor: The stressor, according to the definition of PTSD, must be outside the range of common human experiences.
   The traumatic events vary in intensity and duration and affect individuals or groups or could be man-made disasters (wars) or natural disasters (earthquake). Those factors may influence the development of PTSD and its course[(2)].
b. Individual factors: the idea that the person predispose to PTSD harks back to the concept of traumatic neurosis in which the patient's response to a current trauma was considered to be a reactivation of prior unresolved[(5)].
c. Social factors: after a disaster, family and friends tend to be protective and offer social support to minimize the effect of trauma[(19)].

1.4 Review of Some Clinical Theories

a. The Psychodynamic Theory
   Freud and other early psychoanalyst said first that trauma revived the original childhood neurosis through regression[(2)].
b. The Learning Theories
   Mowrer's (1960) 2-stage theory was used to explain symptoms of PTSD in rape victims and veterans, as the traditional Stimulus-Response theory can account for fear and evidence consequent to a traumatic event (Foa, 1989)[(8)].
c. Biological Correlates of PTSD:
   It is reasonable to suggest that any disorder which can persist for decades is associated with measurable biological alterations. The biological studies of PTSD involve alterations in:

1- Sympathetic Studies: PTSD patients showed higher baseline heart rates, systolic blood pressure and forehead electromyogram (EMG) responses. (Kolb, 1988)[12].
2- Endocrine System: PTSD patients had a significantly higher urinary norepinephrine /cortisol ratio. This is consistent with the hypersympathetic activity findings.

Lower urinary cortisol levels are consistent with earlier findings which suggested that denial and psychological defense can exert a strong suppression effect on urinary corticosteroid levels (Manson, 1989)[14].

3- Sleep and Dreaming: PTSD patients exhibit sleep abnormalities such as increased *REM* latency, less *REM* sleep and diminished stage 4 sleep. (Ross et al 1989).

Nightmares are prominent abnormalities in PTSD which may arise out of various stages of sleep and are not confined to *REM* sleep alone (Kolb, 1988).

The hyper-arousal, nightmares and flashbacks that characterize PTSD may be reflected to long-term potentiation of locus ceruleus pathways to the hippocampus and amygdala, and such hyperactivity is further advanced by fluctuation in endogenous opiod levels in response to exposure to traumatic situations. Such a hypothesis could explain why untreated PTSD symptoms can persist for decades (Friedman, 1988)[9].

1.5 PTSD Symptoms

PTSD symptoms could be divided into 4 groups [15]:

a) Re-experience of the trauma.
b) Numbing of responsiveness.
c) Avoidance of stimuli associated with trauma.
d) Hyper-arousal symptoms and other symptoms.

2.1 Aims of Study

a) Exploring the common symptoms of Iraqi PTSD patients which can be consistent with those of DSM-IV-TR.
b) Exploring other associated symptoms with man-made PTSD namely: symptoms of depressions, anxiety, enduring personality and maladjustment.

3. Methods and Materials

3.1 Subjects: One hundred forty patients who met the DSMT-IV-TR criteria for PTSD. One hundred forty patients collected from the outpatients of Al-Diwaniyah Teaching Hospital , from March 2009 to August 2009. Both sexes, age between 18-50 years old were included.

3.2 Inclusion Criteria

a- Willingness to participate voluntarily.
b- Symptoms of PTSD according to DSM-IV-TR.
c- Age between 18-50 years.
d- Conscious with no severe mental or physical illness preventing him from communication.

3.3 Instruments

Every patient was interviewed using the following:

a) STRESS Semi- Structured Interview format : (Appendix 1)
b) PTSD Symptoms Check List: This was designed according to both DSM-IV-TR and ICD-10. (Appendix 2).
c) Symptoms check list of stress related neurotic disorders. This was designed according to ICD-10, containing the main diagnostic symptoms of the following:
   1- Acute Stress Disorder (ASD) (F43.0)
   2- Adjustment Disorder (AD) (F43.2)
   3- Enduring Personality (EP) (F62)
   4- Generalized Anxiety Disorder (GAD) (F 41.1)

5- Depression (D) (F 31)

The scoring of symptoms in the 2 check lists were as follows: score one for the presence of a symptom and zero for absent one.

3.4 Statistical Methods:

1- Frequency and percentages were calculated for whole data.
2- Whenever applicable Z value and P value were used (P value less than 0.05 was considered statistically significant. (Ferguson, 1981).
3- Patients Flow: One hundred forty patients (100%).

3.5 Ethical Issues

Patients were told they were in a research study exploring certain disorders similar to their problems. Participation in the study is voluntary and they can withdraw at any time if they wish. The participation will not affect any of their rights in the treatment, follow up or any other relevant decision. They were invited to ask questions about their condition and diagnosis at any time. Privacy of information were secured.

4. Results:

1- Age: Mean age of the sample was 38 years, range (18-49), median 33 years and with standard deviation 10.
2- Sex: One hundred and fifteen male patients (82%) and 25 females (18%).
3- Stress: The whole sample were victims of man-made stress (war related stress) as:
   a) For Males: 100 (87%) were prisoners of war (POW).
      11 (9%) were x-military veterans (civilian now).
      4 (4%) were victims of bombardment.
   b) For Females: 14 (56%) were victims of Al-America Shelter.
      11 44%) were victims of other bombardment.
4- Socioeconomic Characteristics of the sample are shown in table 1.
5- Clinical Characteristics of the sample are shown in table 2.

Only 3 patients had previous mental illness (2 depression and one alcoholism).

Family history of mental illness was found in 19 patients (9 depression, 6 anxiety, 2 schizophrenia and 2 epilepsy).

Delayed form of PTSD (i.e. onset of symptoms more than 6 months of the event) was found in 54% of the patients. From the whole sample, 95 patients (68%) wished to seek help.

Symptoms Profile in PTSD:

All patients (i.e. 100% of the sample) showed the following symptoms:

a) Experiences of reliving intrusive recollection of the event.
b) Avoidance of emotionally charged stimuli.
c) Misadaptation (reduced coping abilities) experiences:
   1- Couldn't get over the traumatic event with the time.
   2- Upsetting feelings towards the event.

The core symptoms of PTSD are (as mentioned in DSM-IV-TR).

Other associated symptoms (sleep disturbance, sexual dysfunction, suicidal thoughts, autonomic over-activity and guilt feelings around the event) found in the sample – as 84% had sleep disturbance, 68 male patients (out of 115 male patients) had sexual dysfunction (59%), also 30% had autonomic over-activity and nearly quarter of the patients had solid suicidal thoughts.

Table 1: Socioeconomic Characteristics of Iraqi Psychiatric out Patients (N = 140)

Characteristics	%	n
Age Group: 18-29 y	20	28
30-39y	49	69
40-49y	31	43
Sex: male	82	115
Marital Status: Married	68	95
Others	32	45
Education: illiterate to primary	65	91
Higher than primary	35	49
Employment: employed	54	76
Unemployed	46	64

Table 2. Clinical Characteristics of Iraqi Psychiatric outpatients (N=140)

Characteristics	%	N
Past history of psychiatric illness	2	3
Family history of psychiatric illness	14	19
Onset of symptoms: less than 6 months	46	65
More than 6 months	54	75
Associated physical injury	38	54
Type of stressor: POW	71	100
Bombardment	21	29
x-military veterans	8	11
Ready for the event	10	14
Getting social support during the event	31	44
Habits: alcohol consumers	11	15
Abuse alcohol consumption	53	8
Psychotropic medication intake	47	66
With prescription	30	20
Without prescription	70	46
Wish to seek help	68	95

Table 3. Other associated symptoms found in Iraqi psychiatric out patients. (N = 140)

Symptoms	%	n
Sleep disturbance	84	119
Sexual dysfunction	59	68
Autonomic over-activity	30	42
Suicidal thoughts	24	34
Survival guilt feelings	6	9
Guilty feelings about not helping others	6	9

Table 4. Symptoms of associated disorders*(D,E.P, GAD, and AD)in Iraqi** pop (N=140)

Symptoms of:	%
Depression	73
Enduring personality change	59
Generalized Anxiety Disorder	56
Adjustment Disorder	48

* D = Depression, E.P. = Enduring Personality, GAD = Generalized Anxiety Disorder, and AD= Adjustment Disorder.

** pop = Psychiatric out patient.

Symptoms of associated disorders (depression, anxiety, enduring percentage of the frequency of these symptoms in each disorder (Appendix 3 and Table 4).

5. DISCUSSION

5.1 This study aimed to explore the symptoms profile and other symptoms of associated stress related disorders among 140 Iraqi PTSD patient. The core symptoms resulted in this study were consistent with that of DSM-IV-TR-

5.2 The socioeconomic results in this study is consistent with other studies (Escobar, 1983[6], and Madakasira[13], 1987 studies) in age, sex and marital state, while there was difference related to occupation only from one study (i.e. in this study 54% were unemployed while 38% of patients 115) were unemployed in North Carolina tornado disaster, this difference can be due to the fact that North Carolina natural type of stress (Madaksira, 1987)[13]. Level of education was not referred to in other studies, 65% of this sample illiterate and at primary level education.

5.3 This Main Clinical Characteristics:

Past psychiatric history of our sample had no correlation with the development of PTSD, this is consistent with many studies on Vietnam American (Barret, 1988)[3].

Although the family history of psychiatric illness of this sample is low (14%) in comparison with other studies of chronic PTSD (66%), depression and anxiety are the most common in our sample and similar to other studies(Kinzie, 1989)[11]. Delayed PTSD is high in this study, as75% of our POW had delayed PTSD. Horowitz explained that as after the conflict, with relaxation of defense and coping operations, the individuals develop intrusive symptoms (Horowitz, 1979)[10]. Long period and bad captivity situations of POW may delay the relaxation of the coping operations, and this was clearly observed in delayed PTSD patients of this study, the symptoms commonly appeared after 9-30 months [15].

Social support during the event could minimize the effect of stress on the victims, nearly all the civilian victims in this study got social support while only few military.

Alcoholism is problem in western parents are round 60% of PTSD patients in many studies (Escobar, 1983, Madakasira, 1987[13], and Sierlers, 1983[18]). Were alcoholic in our sample and more than half of them had tendency to increase consumption.

Psychotropic medication regular intake was found in nearly half of the sample, and only 1/3 of them were prescribed by physicians. This can give a clue about the suffering of the patients, and at the chronicity and mismanagement of our PTSD patients.

All the civilian patients had a strong desire to seek help to get rid of their suffering, while only 55% of POW had this wish. This could be due to the marked change the POW's personality and the part of the diminished interest life events after the long captivity period which makes the treatment and the rehabilitations more difficult.

5. 4 The Core Symptoms of PTSD

Table 5 shows comparative results between symptoms of this study, Escobar's study 1983 and Madakasira study 1983.

Reliving intrusive experience is the most frequently reported PTSD symptoms in different studies (Horowitz, 1980), this is consistent with this study.

Avoidance of emotionally charged stimuli, and the acting or feeling as if the event recurring again, both in our study are consistent with the man-made disaster's study. Nightmares around the event are seen more on combat exposure [4], this consistent with the result of this study.

Emotional numbness is more in natural disaster (Madakasira, 1987[13]), as the enhanced startle reflex is more in the natural disaster than in this study.

Survival guilt was low in this study which is consistent with omitting survival guilt from the associated symptoms. In PTSD in DSM-IV-TR (Am. Psych. Assoc., 2001), but this contradicts with that of Escobar study (80%) (1983)[6] and 48% of Madakasira study (1987)[13] (Table 5).

5. 5 Symptoms of associated disorders; found in this study; depression is the most disorder found in this study which is consistent with 72% of 25 veterans in Sierler's study (Sieler, 1983)[18]. Affective disorder in Escobar study (1983)[6] was 49%, and dysthymic disorder when found in 49% of 37 veterans in Behar's study (Behar, 1987). Enduring personality changes were not mentioned in this available studies (but mentioned in ICD-10). The changes of personality were high among the POW in our sample as expected, (due to long and bad captivity situations).

Anxiety disorder was found in 56% of our sample which is comparable to results of Sieler's study (64%).Symptoms of maladjustment found in nearly half of the sample, this could reflect the power of the causative agent against the used coping mechanisms.

Table 5. comparative symptoms among 3 PTSD studies.

Symptoms of PTSD	This study (N=140)		* Escobar (N=20)		** Madakasira (N=120)	
	%	N	%	n	%	n
Intrusive recollection of the events	100	140	90	18	82	94
Avoidance of stimuli that might arouse recollection of the event	100	140	90	18	34	38
Acting or feeling as if the event recurring again (seconds to minutes)	88	124	90	18	49	56
Nightmares around the event	83	116	75	15	44	49
Numbing of responsiveness (emotional detachment and withdrawal from surrounding)	72	101	80	16	45	51
Irritability and impatience	73	102	-	-	-	-
Enhanced startle reflex	71	100	75	15	81	94
Difficulty in concentration	57	80	-	-	66	74
Guilt about surviving	6	9	80	16	48	54

* Man-made disaster study of 20 veterans patents (Escobar, 1983).

** natural-disaster study of 120 patients (Madakasira, 1987).

6. Difficulties During the Study:

a. Difficulties arising from the absence of standard PTSD measurs.
b. Difficulties arising from the patients:
   1- Avoidance of discussing traumatic events, this was controlled by reassurance and longer interviews.
   2- Low level of education in most of the patients which needs more spending time and effort to explain the check lists.
   3- High motivation of some patients, this was controlled by excluding them from the study.

7. limitations of this study:

a) The sample was from psychiatric outpatient and it would be useful to have the patients from the inpatients as well as outpatients.

b) This study explored age group between 18-49 years, while it is advisable to include children and elderly patients and equally number of patients of both sexes.

8. Conclusions:

a) Results are consistent with DSM-IV-TR criteria.
b) The associated disorders as depression or anxiety may overlap the diagnosis.
c) The avoidant attitude of the patients to talk about the traumatric ma underestimate the PSTD diagnosis.
d) PTSD is a problem which need attention and proper management, and labelling the PSTD patients is the first step.

9. Suggested studies:

a. larger sample study of equal sex.
b. Studying if the term PTSD is used in psychiatric hospitals or private clinics.
c. Studying victims of natural disaster or any man-made disaster other than war related stresses.
d. Studying the effect of the social support upon the development and the severity of the PTSD.

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APPENDIX 1

Stress semi structured interview format

Number of Patients

Date:

1. Name:
2. Rank: officer | soldier | soldier | civilian
3. Sex: Male | Female
4. Age
5. Nationality: Arabic | Kurdis | Other
6. Address:
7. Residence:
8. Occupation: Governmental Official | Militirian | Student | retired | unemploy | labourer | Other
9. Duration of service:
10. Level of Education: Primary school or less | Intermediate & secondary school | Higher
11. Marital Status: Married | Single | Other
12. Have you been exposed to severe stress? Yes | No
13. If [yes], what type of stress?

    Combat | Witnessing horrified events | Captivity

14. Place of the event Home | Work | Other
15. Date of the event:
16. Exposure duration to the event Minute | Hours | Days | months
17. Have you received any help during the event?

    None | Strangers | Emergency staff | Relatives & friends

18. Your physical injury during the event? Severe | Moderate | Mild | None
19. Have you been prepared before event? No | Somewhat | Well | Very well
20. What have you lost during event? Home | Work | Properties | Others | None
21. How the event affected you?

    The event let you or others down | If affected me same as others | Better than expected

22. When did your symptoms start?
23. When your symptoms standard? How do you describe you thoughts & feelings toward the (Very up setting | Some what upsetting | Not up setting & not exciting | Somewhat exciting | Very exciting

24. Do you have you have repetitive intrusive collection of these thoughts? Yes No
25. Do you have nightmares about the event? Yes No
26. How do you relive the event gain? Hours Minute Moments None
27. Did you avoid emotionally charged stimuli related to the event? Yes No
28. Did you like talking about the event in details? Yes No
29. With whom were you during the event? Alone With others
30. Do feel guilty about surviving while others not? Yes No
31. Do you feel guilty about not offering help to others during the event? Yes No
32. Have the thoughts related of the event affected you in one of the following?:
    Always occupying your mind Sometimes No thoughts about the event at all
33. Do you feel upset on performing daily routine after the event? Yes No
34. How do find being with others now?
    Intolerable Not help Somewhat helpful Very helpful
35. Have you overcome the sequels of the event with the time?
    I couldn't somewhat Yes Yes absolutely

36. Have you increased your alcohol consumption after the event? Yes No Never
37. What type of alcohol? Whisky Bear others
38. Frequency of alcohol consumption: daily Weekly Others
39. Duration of alcohol consumption in months?
40. Do you take psychotropic medications? Yes No
41. If [yes], mention what medications, please?
42. Were they prescribed? Yes No
43. Before the event had any past history:
    a. of physical illness? Yes No
    b. Of mental illness? Yes No
44. Any family history of mental illness? Yes No
45. Do like to get treatment? Yes No
46. Is there anything else you want to add?
47. Other comment to be mentioned by the interviewer.

APPENDIX 2 (PTSD Symptoms Checklist)

Name Date No.

Please tick with ( ) in front of symptoms in the appropriate place.

1.	Repetitive intrusive or re-living of the events (flashbacks)	Present	Absent
2.	Repetitive nightmares around the event.		
3.	Emotional detachment.		
4.	Withdrawal from the surrounding.		
5.	Avoidance of stimuli that might arouse recollection of the event.		
6.	Enhanced startle reaction.		
7.	Automatic over-activity (sweating, palpitation, dry mouth, diarrhea, and frequent urination.		
8.	Sudden acting or feeling as if the event was recurring		
9.	Guilty feelings about surviving when others did not survive.		
10.	Irritability and impatience.		
11.	Suicidal thoughts.		
12.	Suicidal attempts.		
13.	Difficulty in concentrating.		
14.	Excessive alcohol use.		
15.	Drug abuse.		
16.	Sleep disturbance.		
17.	Sexual dysfunction.		
18.	Tingling in hands and feet.		
19.	Upset stomach.		
20.	Lump in the throat.		
21.	Auditory hallucination.		
22.	Persecutory delusions.		
23.	Other symptoms (to be mentioned, please).		

APPENDIX 3 (Symptoms checklist of stress related neurotic disorders)

Name: Date: No.:

Please tick inside the appropriate box ( )

Symptoms	ASD	AD	E.P	GAD	D
1. State daze					
2. Narrowing of attention					
3. Psychogenic stupor					
4. Conversion symptoms					
5. Impairment to perform daily activity.					
6. Outburst of violence.					
7. Antisocial behavior					
8. Aggressiveness.					
9. Regressive behavior in children and may be adults (e.g. bed wetting, babyish speech, and thumb sucking)					
10. Impairment in interpersonal social and occupational functioning.					
11. Hostile or mistrustful attitude towards the world.					
12. Estrangement.					
13. Feeling of emptiness.					
14. Feeling of hopelessness.					
15. Apathy.					
16. Paranoid ideation					
17. Worriness about					
18. Sleep disturbance					
19. Tentation headache					
20. Inability to relax.					
21. Trembling.					
22. Depressed mood.					
23. Loss of interest or pleasure in normally pleasant activities.					
24. Diurnal variation of the mood.					
25. Psychomotor retardation.					
26. Marked loss of appetite.					
27. Other symptoms.					

* ASD = Active Stress disorder, AD = Adjustment Disorder, E.P. = Enduring Personality Changes, GAD = Generalized Anxiety Disorder, D = depression.