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Research Article

Prevalence of Post Traumatic Stress Disorder among Psychiatric Outpatient in Al Fayhaa Hospital in Basra; Presenting Symptoms and Associated Impairment

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Abstract

Introduction: Prevalence of Post-traumatic Stress disorder (PTSD) among psychiatric outpatient in Al Fayhaa hospital in Basra; presenting symptoms and associated impairment.

Objectives: To determine the point prevalence of Post-traumatic Stress disorder (PTSD) among psychiatric outpatient in Al Fayhaa hospital in Basra; presenting symptoms and associated impairment.

Methods: Two hundred patients consecutively referred to the psychiatric outpatient in Al Fayhaa hospital in Basra were assessed for PTSD during January and February 2006 using the Iraqi version of Harvard Trauma Questionnaire (IVHTQ).

Results: Two hundred patients, 128 males and 72 females, with age range from 15 - 65 years were studied. The mean age ± standard deviation was 31.81 ± 11.5 years. The prevalence of PTSD was 36.5%.

Most of the avoidant symptoms of PTSD have the highest rate. Statistical analysis showed that all associated impairments were significantly associated with severity of PTSD except hopelessness.

Conclusion: The study shows a high prevalence of Post-traumatic stress disorder, in psychiatric outpatient in Al Fayhaa hospital in Basra, higher among singles females (35 - 44), and those with lower level of education. Most of the avoidant symptoms of PTSD have the highest rate and the most of re-experienced PTSD patients have the lowest rate. There were statistically significant differences between PTSD and non-PTSD patients concerning all the associated impairment except hopelessness.

Keywords: *Post Traumatic Stress Disorder; Prevalence; Psychiatric Outpatient; Presenting Symptoms; Associated Impairment; Basra*

Introduction

The essential feature of Posttraumatic Stress Disorder is the development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate [1]. The person's response to the event must involve intense fear, helplessness, or horror (or in children, the response must involve disorganized or agitated behavior) (Criterion A) [2]. The characteristic symptoms resulting from the exposure to the extreme

trauma include persistent reexperiencing of the traumatic event (Criterion B), persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (Criterion C) and persistent symptoms of increased arousal (Criterion D). The full symptom picture must be present for more than 1 month (Criterion E) and the disturbance must cause clinically significant distress or impairment in social, occupational or other important areas of functioning (Criterion F) [1].

Iraq has been exposed to difficulties such as wars and long standing economical sanctions so possible increased risk of PTSD and other mental disorders. Health personnel need to be aware of PTSD because of high rate of morbidity.

Literature Review

Many studies of psychiatric outpatient showed high prevalence of PTSD ranged between 18% for orthopsychiatry patients 2.to 70%for Indochinese refugees [3]. Using Harvard trauma Questionnaire (HTQ) 44.8% of torture victims [4] and 31.5% of Somali adults refugees were found to suffer from PTSD [5]. In the study of symptom profiles in men and women symptoms frequencies for anxiety, insomnia, distressing and recurrent dreams, flashbacks imagery and intrusive thoughts, irritability, poor concentration, avoidance behavior and detachment all reached frequencies above 70% [6].

Some Symptoms such as inability to recall parts of the trauma and restricted affect occurred in no more than 35% of sufferers [6]. In a study of intrusive traumatic recollection and co-morbid PTSD in depressed patients the symptom category of re-experiencing was diagnosed for 48% of the trauma exposed respondents [7]. Symptoms category of avoidance could be identified in 23% of the trauma exposed sub sample [7]. The most prevalent symptoms in this cluster were avoidance of thoughts and feeling 25% [7]. The symptom category of increased arousal was identified in 33% of the trauma exposed group [7]. The most frequent symptoms in this cluster were concentration problems 33% and sleep problems 31% [7].

In chronic PTSD in Vietnam combat veterans, hyper arousal symptoms such as feeling on guard and feeling easily startled developed first, followed by avoidant symptoms and finally symptoms from the intrusive cluster [8].

Chronic PTSD has been associated with cognitive impairment involving memory and attention.

Low I.Q and impaired attention are associated with early PTSD and depressive symptoms [9]. PTSD was associated with impairment in job, social interaction and leisure activities [10].

Objectives of the Study

To determine the point prevalence of PTSD among psychiatric outpatient in Al Fayhaa hospital in Basra; presenting symptoms and associated impairment.

Methodology

Participants

All consecutive 200 patients, 128 males and 27 females referred to psychiatric outpatient in Al Fayhaa hospital in Basra city were assessed for PTSD; presenting symptoms and associated impairment during January and February 2006, this was because of shortage of the patients referred to psychiatric outpatient in Al Fayhaa hospital. Their mean age was 31.81 years (sd. = 11.5 range 15 - 65 years).

Inclusive criteria

1. Patients between 15 - 65 years old.
2. Male and female patients.

Exclusive criteria

1. Deaf and mute.
2. Patients with organic brain damage.

Procedure

The protocol and pilot study were approved by the evaluating committee of world health organization -national mental health. Participation was entirely voluntary (informed consent obtained from each patient involved in this study). Each patient asked to indicate whether he had experienced any of the traumatic events and to decide how much the trauma symptoms bothered him in the past week preceded the interview. The investigator read the questionnaire to the illiterate patients where each interview took an average of 20 minutes.

Instrument

Iraqi version of Harvard trauma questionnaire (HTQ) of 4 parts used. Part 1: associated with trauma events of 43 questions. Respondents were required to indicate (yes or no) if an event had happened to them or their families in the past. Part II and III: were associated with personal account of stressful events and head injury respectively. Part IV: related to trauma symptoms of 45 questions each of these questions had four points with 1 corresponds to (not at all) 2 to a little 3 to quite a bit and4 to extremely. The first 16 questions of trauma symptoms were used for the diagnosis of PTSD and for presenting symptoms. From question 17 - 40 for the associated impairment and from question 41 - 45 as culture specific terms under the associated impairment. Scoring of part IV by adding up the first 16 item scores and divided by 16, individual with scores on DSM-IV and or total more than 2.5 were considered symptomatic for PTSD.

Statistical analysis

Descriptive statistical tests applied to the type of data collected, these included point prevalence, frequency of symptoms and t-test were conducted to determine which variables differentiated significantly between the two groups of associated impairment in patients with and without PTSD. P less than 0.05 was considered statistically significant for these analyses.

Results

11 of the 211 patients included in this study did not take part in the study: 4 people refused to participate, 4 were under 15 years old, 1 was mentally retarded, 1 was deaf and mute and one was above 65 years old.

Point prevalence: out of 200 patients mean age 31.81 SD = 11.5 (128 males and 72 females) referred to psychiatric out patient in Al Fayhaa hospital in Basra during a period of January and February 2006, 73 patients diagnosed as PTSD 36.5%. Point prevalence of PTSD among males was 35.16% (45 patients) and among females was 38.89% (28 patients).

Characteristics	PTSD		Non-PTSD		Statistically significant
Age group	**No.**	**%**	**No.**	**%**	**df4, χ^2 = 27 p < 0.001 statistically significant**
15 - 24	8	4	37	18.50	
25 - 34	21	10.50	55	27.50	
35 - 44	23	11.50	25	12.50	
45 - 54	14	7	4	2	
55 - 65	7	3.50	6	3	
Gender					**df3, χ^2 = 10.18, p ≤ 0.25 statistically non -significant**
Male	45	22.5	83	41.5	
Female	28	14.0	44	22.0	
Marital status					
Married	15	7	52	26	
Single	49	24	68	34	
Divorced	4	2	4	2	
Widow/widower	5	2.5	3	2.5	
Education					**df 4, χ^2 = 0.52, p ≤ 1 Statistically non-significant**
Illiterate	14	7	23		
Primary school	26	13	41		
Intermediate school	15	7.50	41		
Secondary school	9	4.5	18	9	
High	9	4.5	19	9.5	
Occupation					**df3, X^2=6.48, P ≤ 0.10, Statistically non-significant**
House wife	25	12.50	36	18	
Paid work	39	19.5	59	29.5	
Student	0	0	7	3.5	
Unemployed	9	4.5	25	9.5	

Table 1: *Sociodemographic characteristics of respondents.*

Number of events	PTSD		Non-PTSD	
	No.	%	No.	%
0 - 3	32	16	111	55.5
4 - 7	15	7.5	13	6.5
8 - 11	9	4.5	2	1
> 12	17	8.5	1	.5

Table 2: *Traumatic events in PTSD and non PTSD.*

	Presenting symptoms	Frequency order	N	L	Q	E	Mean
1	Sudden emotional or physical reaction	First	1	1	14	57	3.74
2	Avoid hurtful thoughts	Second	4	1	11	58	3.71
3	Less interest in daily activities	Third	4	1	11	57	3.66
4	Avoid activities that remind hurtful event	Fourth	1	6	10	56	3.65
5	Outburst of anger	Fifth	1	4	15	53	3.64
6	Inability to remember parts of events	Sixth	3	4	13	53	3.59
7	Feeling as if you don't have a future	Seventh	3	4	14	52	3.57
8	Trouble sleeping	Eighth	3	5	16	49	3.52
9	Feeling on guard and feeling jumpy easily started	Ninth	4	6	18	45	3.42
10	Difficulty concentration	Tenth	3	8	19	43	3.39
11	Feeling withdrawn from people	Eleventh	3	8	20	42	3.38
12	Unable to feel emotion	Twelfth	3	9	19	42	3.37
13	Feeling event happening again	thirteenth	2	13	22	36	3.26
14	Recurrent night mares	Fourteenth	7	19	17	30	2.95
15	Recurrent thoughts/memories	Fifteenth		15	9	17	2.15

Table 3: *Frequency of PTSD symptoms.*

		PTSD				Non-PTSD						
	Associated impairment	N	A	Q	E	N	A	Q	E	df	t-test	p-value
1	Poor memory	7	8	15	43	111	12	2	2	198	3.25	0.01
2	Feeling exhausted	4	3	11	55	99	19	4	5	198	3.15	0.05
3	Troubled by bodily pain or physical problems	7	8	12	46	106	12	4	5	198	3.00	0.05
4	Feeling that you have less skills than you did before	3	7	12	51	106	19	1	1	198	3.47	0.01
5	Difficulty paying attention	7	8	12	46	107	19	0	1	198	4.98	0.01
6	Feeling unable to make daily plans	10	9	16	38	110	15	0	2	198	4.75	0.01
7	Having difficulty dealing with new situations	11	7	11	44	112	11	1	3	198	3.14	0.01
8	Feeling that you are the only one who suffered these events	16	4	13	40	120	6	1	0	198	5.02	0.01
9	Feeling that others don't understands what happened to you	11	4	14	44	116	8	3	0	198	5.15	0.01
10	Feeling guilty for having survived	18	8	11	36	121	4	1	1	198	2.57	0.01
11	Blaming yourself for things that have happened	13	2	13	45	120	6	1	0	198	5.20	0.01
12	Spending time thinking why God is making you go through such events	17	2	13	41	121	4	1	1	198	2.72	0.01
13	Feeling a need for revenge	26	6	12	29	122	3	0	2	198	4.58	0.01
14	Feeling others are hostile to you	18	6	12	37	121	2	2	1	198	3.49	0.01
15	Feeling that someone you trusted betrayed you	20	4	14	35	120	3	2	2	198	2.50	0.01

16	Feeling no trust in others	14	5	11	43	118	4	2	3	198	2.69	0.01
17	Feeling that you have no one to rely upon but God	6	3	8	56	105	3	2	17	198	2.67	0.01
18	hopelessness	11	7	11	44	118	4	0	5	198	1.11	NS
19	Feeling powerless to help others	16	9	11	37	118	5	2	2	198	2.53	0.01
20	Feeling ashamed of the hurtful or traumatic events that have happened to you	15	10	10	38	122	3	0	2	198	5.13	0.01
21	Feeling humiliated by your experience	16	6	11	40	120	5	0	2	198	5.13	0.01
22	Feeling that you are a jinx to yourself and your family	19	6	10	38	126	0	0	1	198	6.27	0.01
23	Finding out or being told by other people that you have done something that you can't remember	26	6	7	34	123	3	1	0	198	4.93	0.01
24	Feeling as though you are split into two people and one of you is watching what the other is doing.	32	3	9	29	125	0	2	0	198	6.14	0.01
25	Dayeg (ruminations, poor concentration lack of initiative, tiredness and somatic complaints).	1	2	8	62	70	33	10	14	198	2.10	0.05
26	Qalbak maqboud (sensation of the heart being squeezed).	0	5	7	61	75	30	10	12	198	2.62	0.01
27	Asabi (irritability, nervousness, lack of patience and anger outbursts).	1	13	6	53	67	28	15	17	198	2.96	0.01
28	Nafsak deeyega and makhnouk (feeling of tightness in the chest and chocking sensation).	2	6	5	60	78	20	15	14	198	3.91	0.01
29	Nafseetak ta bana (tired soul).	1	2	6	64	67	34	13	13	198	4.13	0.01

Table 4: *Associated impairment in PTSD and non-PTSD patients.*

	Co morbid disorder	PTSD		Non-PTSD	
		NO.	%	NO.	%
1	Major Depressive disorder	40	54	20	15
2	Psychotic disorder	18	24	29	22.8
3	Headache	6	8	34	26
4	Generalized anxiety disorder	4	5	28	22
5	Epilepsy	2	2.7	13	10
6	Social anxiety disorder	1	1.3	0	0
7	Antisocial personality disorder	1	1.3	0	0
8	Conversion disorder	1	1.3	1	0.7
9	Obsessive compulsive disorder	0	0	1	0.7
10	Substance related disorder	0	0	1	0.7

Table 5: *Co-morbid disorders in PTSD and non-PTSD patients. Diagnosed clinically according to DSM-IV.*

Discussion

Point prevalence of PTSD 36.5% in this study is comparable with the prevalence of PTSD in Algeria 37.4% in a study of four post conflict settings [12]; however it is higher than in Eastern Afghanistan 20.4% [13] and the prevalence of PTSD among Somalia adults 31.5% [5]. In this study the prevalence of PTSD is higher among females than among males comparable with other studies such as study of Detroit metropolitan area 13% among the women and6.2% among the men [14] and study of mental health symptoms following war and repression in Eastern Afghanistan 7.5% in males and 31.9% in females [13].

In table 1 PTSD is associated statistically significant with age group. There are no statistically significant association between PTSD and marital status, gender, education and occupation. PTSD is low in the age group (15 - 24) and (55 - 65) and is high among age group (35 - 44) years, this may be because that this age group was more directly involved in conflict situations, captivity torture and other catastrophic stressors than other age groups and the result is inconsistent with the findings of other studies such as Scholte WF 2004, in mental health symptoms following war and repression in Eastern Afghanistan where PTSD was associated with the older age (adjusted OR was 3.69, confidence Interval: 1.57 - 8.68 in those ≥ 45 years and 1.84, confidence interval: 0.79 - 4.25 in those 35 - 44 years [13]. PTSD is high among illiterate and those with primary school education this result is consistent with the finding of other studies Algeria [12], Gaza [12], Cambodia [12] and Ethiopia [12] where lower level of educating was associated with PTSD and is consistent with findings from the west [12]. PTSD is high among single persons (49 PTSD patients 67.1% and this may be because of lack of family support and consistent with the study of Scholte WF., *et al*. 2004 where PTSD symptoms were associated with marital status, that is being single [13]. High rate of paid work of PTSD patients (39 PTSD patients 50.3%) is consistent with another study where profession (employed 70.6% df 1, $\chi 2$ .04 p > 80) is not associated with the diagnosis of a partial PTSD [10]. In table 2 more than half of PTSD patients experienced more than four traumatic events which may be associated with higher score of PTSD symptoms. This result is comparable to the study in Eastern Afghanistan where more people have experienced traumatic events during a long history of armed conflict, repression and insufficiency of needs [13] it is also consistent with the (Petrel Jon Study) on traumatic stress reaction and the psychiatric emergency where psychiatric patients have an increased likelihood of exposure to traumatic stress [15]. In table 3 most of the avoidant symptoms of PTSD have the highest scores and most of the re-experiencing symptoms (Except Sudden emotional or physical reaction which was the first in frequency) have the lowest scores. These findings are inconsistent with the findings of Carlier I., *et al*. in a study of intrusive traumatic recollection and Comorbid PTSD in depressed patients where the symptoms category of re-experiencing was the highest rate and the symptoms category of avoidance was the lowest rate [7]. The finding of this study are inconsistent with the results of Jong J., *et al*. [12] in a study of life time events and PTSD in four post conflict settings, where the highest rates for the re-experiencing were in all samples and the lowest rates were found for the avoidance/numbing cluster in Algeria and Gaza [12] in Cambodia and Ethiopia the lowest rates were found for the hyper arousal cluster [12] where concentration problems and sleep problems were the most frequent symptoms in hyper arousal cluster [7].

Statistical analysis showed that all associated impairment except hopelessness were significantly associated with severity of PTSD (54 PTSD patients 73.97%). All the associated impairment in PTSD patients apart from hopelessness are significantly different statistically from those in non PTSD patients (Table 4), and are comparable with other studies like of Brandes D., *et al.* studying PTSD and cognitive performance [9] and the study of Barth J., *et al.* 2005, where PTSD patients show a considerable worse level of functioning in all domains than do people without a PTSD [10]. The culture specific items from 25 - 29 in table 4 are significantly different statistically in PTSD patients from non PTSD patients and are the most common findings.

Nafseetak ta'bana (tired soul) Dayeg (ruminations, poor concentration, lack of initiative, boredom, sleep problems, tiredness and somatic complaints), Qalbak maqboud (sensation of the heart being squeezed), Nafsak deeyega and makhnouk (feeling of tightness in the chest and a chalking sensation) and feeling that you have no one to rely upon but God, respectively were the chief complaints among the

associated features. Culture specific items of IVHTQ are terms used to describe symptoms in local language. In table 5 the rate of comorbid major depressive disorder in PTSD patients 54% is higher than those with non PTSD patients (15%). This finding is consistent with the study of Barth J., *et al.* 2005,where patients with a partial PTSD are clearly more depressive than those without PTSD ($F = 31.55$, $df = 64$, $p < 0.001$) [10].

Conclusion

Prevalence of PTSD in psychiatric outpatient in Al Fayhaa hospital in Basra is high, more among singles, females (35 - 44) years, illiterate and those with primary school education. Multiple traumas associated with high PTSD prevalence. Most of the avoidant symptoms scored the highest rates and most of the re- experienced symptoms scored the lowest rates. All associated impairment, except hopelessness, are significantly associated with severity of PTSD and different statistically in PTSD patients than in non PTSD patients. The culture specific items are the most common features in this study.

Suggestion

1. To raise the awareness of health personnel about PTSD.
2. To inquire from patients and their relatives about traumatic events.
3. because the prevalence of PTSD is high, it is suggested that a special unit is established (PTSD unit).
4. Conducting further studies in general medicine out patient.

Limitation of the Study

1. HTQ has not yet been validated in Afghanistan and Iraq. Validity has been proven, however in various languages and cultures [12].
2. Because of the unstable security situation in Basra and shortage of patients, all consecutive patients attended the psychiatric clinic were included.

Author Contribution

Dr. Al Karkhi Khaleel I. had full access to all of the data in the study and is responsible for the integrity, analysis and interpretation of the data.

Statistical expertise: Dr. Asaad Y Ayied prof. animal breeding and genetics dept. of animal production College of agriculture university of Basrah, Basra, Iraq.

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Conflict of Interest

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