POST-TRAUMATIC STRESS DISORDER AND COMORBIDITY DISORDERS IN WAR VETERANS WITH SOCIAL PROBLEMS

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Abstract

Aim: To determine the prevalence of post-traumatic stress disorder (PTSD) and to assess the impact of social problems in development of co-morbid disorders in war veterans.

Methods: The invitations to participate in the study were sent to 135 veterans, positively responded 108 (80%). Previously all veterans have signed the consent form for participation in this study. Post-traumatic stress disorder symptoms and social functioning were analyzed using General Health Questionnaire (GHQ-28), Medical Outcomes Study, short form (MOS-20), Harvard Trauma Questionnaire, PCL-M and Mississippi scale. Also subjects were assessed for severity of depressive symptoms by research clinician using the Beck Depression Inventory. Suicide intent and ideation were measured with Suicide Intent Scale and the Scale for Suicide Ideation

Results: All 108 veterans who responded to the call for assessment were males, mean age 42.5 yrs SD 7.02 p <0.002, single 91 (84.3%), unemployed 51 (51.9%), with non incomes 56 (51.9%), unsatisfied with living conditions 46 (42.6%), dissatisfied with the family's financial situation 75 (69.4%), PTSD criteria met 60 (55.6%), with co-morbid major depressive disorder resulted 34 cases(31.5%), recurrent depressive disorder 29 (26.9%) and panic disorder 13 (12%). High risk for suicide we found in 7 cases (6.5%). None of the veterans was involved in any psychosocial rehabilitation programs;

Conclusion: Poor living conditions, severe financial problems and social isolation were identified as factors with aggravation effect in the development and deterioration of depression and other co morbidities in veterans with PTSD, also comparing to civilian population (22.6%) PTSD rate in war veterans was higher (55.6%).

Keywords: prevalence, PTSD, co morbidity, social experience.

Based on International Classification of Diseases 10-th version (1), Post-traumatic stress disorder (PTSD) arises as a delayed or protracted response to a stressful event or situation of an

exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone. Typical features include episodes of repeated reliving of the trauma in intrusive memories (“flashbacks”), dreams or nightmares, occurring against the persisting background of a sense of “numbness” and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia, and avoidance of activities and situations reminiscent to the trauma. There is usually a state of autonomic hyper-arousal with hyper vigilance, an enhanced startle reaction, and insomnia. The onset follows the trauma with a latency period that may range from a few weeks to months. The course is fluctuating but recovery can be expected in majority of cases. In a small proportion of cases the condition may follow a chronic course over many years.

Several trauma theorists suggest that cognitive factors have critical impact on the trauma response, particularly in the persistence of PTSD through negative beliefs and appraisals of ongoing threat (2). For example, central in cognitive models of PTSD is the assumption that perception of stressful event as a threat may be at least as important as trauma severity and variation in pre-trauma experience in the development and maintenance of PTSD. (3)

Military personnel are among the most at-risk populations for exposure to traumatic events and the development of PTSD. Veterans with PTSD are much likely report martial, parental, and family adjustment problems. There is more violence in the families of veterans with PTSD (4). Risk factors that enhance the probability of being traumatized include genetics, limited intelligence, limited formal education, and limited social support. (5) Veterans with more PTSD symptoms are probably also more depressed and angry. (6)

In addition to PTSD, untreated victims may develop additional and serious medical and psychological complications in the aftermath of traumatic events. Those complications may evolve from PTSD, be co-morbid with PTSD, or exist by themselves. They include, GAD, panic, major depression, dysthymia, somatoform disorder and personality disorder. Untreated trauma and PTSD may result in permanent disability, medical and legal expense, social and community disorganization and intense psychological distress. The toll in human suffering is enormous and unacceptable. (5)

In their comprehensive psychiatric epidemiological study of veteran psychological adjustment (the RTI-VA study) (7), evaluated a total of 3,016 Vietnam and civilian controls. The prevalence of PTSD among veterans was 15%, also 99% of PTSD veterans reached criteria for another disorder present during previous six months, 73% for lifetime alcohol abuse or dependence, 31% met criteria for lifetime antisocial personality disorder, 26% for lifetime major depressive episode, 21% for lifetime dysthymia and 10% for lifetime obsessive-compulsive disorder.

Croatian survey with war veterans showed that from total sample of 402, the criteria for PTSD only were met by 97 soldiers (24%), and most of them met criteria for PTSD co-morbid with another psychiatric disorder (n=249, 62% of the total sample, 72% of the PTSD group). (8)

The trend of PTSD, symptoms of depression and emotional distress symptoms was significantly related to number of traumatic events experienced. Participants who had been involved in a combat situation also had significantly higher rates for PTSD (32.1%), depression (53.2%), and emotional distress (55.2%). In addition these categories of population had a very high prevalence of substantial psychiatric morbidity (33.8%), poor social functioning (65%) and psychiatric disorder (45.7%). (9)

Methods

The invitations to participate in the study were sent to 135 veterans, positively responded 108 (80%). Previously all veterans have signed the consent form for participation in this study.

Subjects were assessed for the presence of lifetime and current DSM-IV TR psychiatric disorders with followed questionnaires: Harvard trauma questionnaire (HTQ), Post-traumatic check list for Military (PCL-M), Mississippi scale for PTSD and General health questionnaire (GHQ- 28). Also subjects were assessed for severity of depressive symptoms by research clinician using the Beck Depression Inventory. Suicide intent and ideation were measured with Suicide Intent Scale and the Scale for Suicide Ideation (10, 11)

All interviewers were Psychiatrist or Clinical Psychologist. The diagnoses were made by consensus on the basis of all available data sources. The data were analyzed with SPSS-20.

Results

Socio-demographic Characteristics

Table 1 shows the characteristics of the group of 108 cases analyzed, all were males with a mean age of 41.5 y/o, SD 7.08, predominant age group 36-45 with 52 cases (48.1%), most of them married 91 (84.3 %), the largest group consisted of cases with secondary school education 51 (47.2%), unemployed 51 (47.2%), with no incomes 56 (51.9%), with a minimum incomes 4 (3.7%), dissatisfied with life achievements 64 (59.3%), dissatisfied with financial situation 84 (77.8%), unhappy with living conditions 49 (45.4%) and with social frustrations 58 (53.7%).

Co-morbidity with PTSD

The criteria for PTSD were met by 60 veterans (55.6%) and the most of them met criteria for PTSD co-morbid with another psychiatric disorder. Major Depressive Disorder 34 (31.5%), Recurrent Depressive Disorder 29 (26.9%) and Melancholic Depressive Disorder 16 (14.8%) were most common disorders, followed by Panic Disorder 13 (12%) and Anxiety Disorder 11 (10.2%). (Table no: 2) Compared to civilians (22.6%), the prevalence of PTSD was higher among Kosovo veterans with combat experiences (55.6%), but, depression rate of combat veterans (31.5%) was lower compared to civilians (43.1%). (8)

Table. no. 1: Sample structure	Number of cases:	108	
	Number	%	p.
Mean age	41.5 y/o	SD 7.08	0.002
Age groups			
under 35 y/o	15	13.9	0.001
36-45 y/o	52	48.1	0.001
46-55 y/o	37	34.3	0.001
above 56 y/o	4	3.7	0.001
Marital status			
Married	91	84.3	0.002
Unmarried	13	12	0.002
Divorced	2	1.9	0.002
Widowed	2	1.9	0.002
Education			0.002
Elementary	30	27.8	0.002
High school	51	47.2	0.002
Student	9	8.3	0.002
Bachelor	8	7.4	0.002
Superior education	10	9.3	0.002
Employment status			
Unemployed	51	47.2	0.002

Temporary employed	14	13	0.002
Permanently employed	38	38	0.002
Personal salary			
No salary	56	51.9	0.001
Incomes under 100 E/month	4	3.7	0.002
Incomes 100-200 E/month	12	11.2	0.001
Incomes 200-400 E/month	17	15.7	0.002
Incomes higher than 400 E/month	19	17.6	0.002
Social satisfaction			
Unsatisfied with life achievements	64	59.3	0.001
Unsatisfied with finance conditions	84	77.8	0.001
Unsatisfied with living conditions	49	45.4	0.001
Social isolation and social frustration	58	53.7	0.001

Tab. No: 2	PTSD	HTQ	No:	60 (55.6%)		
Co-morbid Disorders	No	%	p	Pears. R	df	Likelihood Ratio
Major Depressive Disorder	34	31.5	0,00	0.79	1	24.0
Recurrent Depressive Disorder	29	26.9	0.00	0.76	1	22.3
Acute Depressive Disorder	4	3.7	0.001	0.45	1	4.82
MDD- Melancholic	16	14.8	0.002	0.72	1	11.1
Lifelong Panic Disorder	13	12	0.002	0.81	1	5.46
Limited symptomatology of Lifelong Panic Disorder	3	2.78	0.003	0.86	1	0.67
Acute Panic Disorder	3	2.78	0.003	0.86	1	0.67
Anxiety Disorder	11	10.2	0.003	0.67	1	8.4
Psychotic Disorder	1	0.93	0.00	0.86	1	1.83
Antisocial Personality Disorder	4	3.7	0.001	0.45	1	4.86
Somatization Disorder	1	0.93	0.001	0.97	1	0.25

Suicide risk

The overall suicidal risk is recorded in 20 cases (18.5%). Based on Beck Depression Inventory, the higher risk for suicide (6.5%) is presented in cases with extreme severe depression and severe depression. The low suicide risk is presented in 8 (7.4%) of cases. (Table no 3)

When reported PTSD is co-morbid with major depression episode, is associated with higher rates of suicidal acts, also the cases with a lifetime history of PTSD were also significantly more likely to be suicide attempters (11). Aggression, hostility, and impulsivity have been associated with elevated risk for suicidal behavior in major depression and PTSD. (12, 13, 14)

Table no.3: Back Depressive Inventory/ Suicidal Risk

Count

		Suicidal Risk (Overall 18.5%)				Total
		Low risk	Medium risk	High risk	No risk	
Beck Depressive Inventory	0-10 Normal condition of humor	0	0	0	42	42 (38.9%)
	11-16 Light disturbance	2	0	0	14	16 (14.8%)
	17-20 Borderline depression	1	1	0	8	10 (9.3%)
	21-30 Moderate depression	3	2	2	16	23 (21.3%)
	31-40 Severe depression	2	1	2	6	11 (10.2%)
	above 40 Extreme severe depression	0	1	3	2	6 (5.6%)
Total		8 (7.4%)	5 (4.6%)	7 (6.5%)	88 (81.5%)	108 (100%)

Correlations of social factors with co-morbidity

For existence of correlation between social factors and co-morbid disorders with PTSD, four variables have been analyzed: employment and incomes, financial condition and satisfaction with life. Based on results (r 0), it was concluded that the high unemployment, very low incomes and unsatisfactory financial situation, and also very unsatisfactory living conditions does not influences aggravation of PTSD and co-morbid disorders, but social factors in correlation with psychological factors might contribute to lower functioning in the present environment. (Table no 4)

Table no. 4 Correlations/social factors: a. Correlations : PTSD/ Co-morbidity/ Employment	**r**	**df**	**X^2**	**Likelihood Ratio**	**Sig.**
MDD	-0.15	2	5.723	5.81	0.002
RMDD	-0.033	2	1.321	1.352	0.001
MDD/Melancholic	-0.07	2	12.66	13.465	0.00
Panic disorder	0.02	2	1.623	1.618	0.001
Anxiety disorder	0.072	2	0.574	0.573	0.002
b. Correlations : PTSD/ Co-morbidity/ Salary level	**r**	**df**	**X^2**	**Likelihood Ratio**	**p**
MDD	-0.17	4	9.76	11.11	0.001
RMDD	-0.018	4	5.93	5.73	0.003
MDD/Melancholic	-0.02	4	25.05	22.63	0.004
Panic disorder	0.05	4	5.79	4.54	0.002
Anxiety disorder	0.05	4	3.12	3.05	0.001

c. Correlations : PTSD/ Co-morbidity/ Financial situation	r	df	X^2	Likelihood Ratio	p
MDD	-0.3	5	20.69	8.76	0
RMDD	-0.27	5	12.02	15.96	0.004
MDD/Melancholic	-0.26	5	6.28	5.93	0.003
Panic disorder	0.04	5	10.24	8.18	0.004
Anxiety disorder	0.02	5	9.92	11.01	0.002
d. Correlations : PTSD/ Co-morbidity/ Satisfaction with life	**r**	**df**	X^2	**Likelihood Ratio**	**p**
MDD	-0.2	5	7.93	8.76	0.003
RMDD	-0.3	5	5.5	5.96	0.004
MDD/Melancholic	-0.3	5	9.47	11.55	<0.005
Panic disorder	0.33	5	5.75	5.5	0.004
Anxiety disorder	0.28	5	6.44	8.84	0.001

Conclusions

In conclusion, our study shows that PTSD prevalence among combat veterans were 55.6% and resulted higher compared to civilians with trauma experiences (22.6%), also our study confirms presence of PTSD comorbid disorders in 98% of cases diagnosed with PTSD. DSM-IV criteria for comorbid disorders were met for Major Depressive Disorder 31.5%, Recurrent Depressive Disorder 26.9%, Melancholic Depressive Disorder 14.8%, Panic Disorder 12% and Anxiety Disorder 10.2%. Overall suicidal risk estimated at 18.5% of cases, high suicidal risk were 6.5%. Social factors in correlation with psychological factors contributes to lower functioning in the present environment.

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