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## Posttraumatic stress disorder (ptsd) and co-morbidity

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### Abstract

Posttraumatic Stress Disorder (PTSD) very often occurs accompanied with other psychiatric disorders such as: Alcohol and Drug abuse, Personality Disorder, General Anxiety Disorder, Obsessive Compulsive Disorder, Schizophrenia etc. Sometimes it might be a problem for clinicians to differ PTSD symptoms from symptoms of coexisting psychic disorders.

The aim of this study was to present the most common PTSD coexisting psycho-disorders.

This research was conducted during the period from April 1998 to October 1999.

Participants were divided in two groups each containing 30 examinees. The first group consisted of 30 participants with symptoms of PTSD only while the second group included participants who suffered from both PTSD and other psychic disorders (co-morbidity). Both groups were quite similar regarding participants' gender and age.

The scientific tools used in the research were: Standard Psychiatric Interview, Harvard Trauma Questionnaire (HTQ), Hamilton Anxiety Rating Scale, Hamilton Depression Rating Scale, and Drug and Alcohol Abuse Checklist.

Our research results are indicating that PTSD symptoms are most common in middle-aged persons, regardless of their gender and age. We have found following coexisting psychic disorders: personality disorder 46.6% (from which 13.3% is permanent personality disorder after the traumatic experience); depression 29.9% (depression without psychotic symptoms 23.3% and depression with coexisting psychotic symptoms 6.6%); drug abuse 13.3%; alcohol abuse 6.7% and dissociative (conversion) disorder 3.3%.

The results of our work are suggesting that co-morbid psychic symptoms have significant regressive influence on PTSD course and prognosis.

**Key words:** PTSD, co-morbidity, depression, personality disorder

### Introduction

Posttraumatic Stress Disorder (PTSD) represents a delayed response to the stress events or situations these are threatening or catastrophic in their nature. PTSD is

likely to cause pervasive distress in almost every person. Typical (crucial) symptoms of PTSD are: episodes of the traumatic experience recurrence induced by the memory (flashback), nightmares, lack of positive feelings and emotional emptiness, isolation from other people, anhedonia and avoidance of activities and situations reminding of trauma. Anxiety and depression are commonly associated with above mentioned symptoms and signs, as well as with not rare suicidal ideas.

Regardless of the trauma type, PTSD is frequently associated with other psychic disorders including different substance abuse, depression and personality disorder (co-morbid symptomatology). Concerning the aetiology of PTSD co-morbidity, we have to take in consideration two aspects: type of trauma and type of personality.

It is still unclear which disorder is primary one, and which is secondary according to their occurrence. Depressive, antisocial and substance abuse factors are considered as factors of high risk for the development of PTSD during the exposure to trauma, but also, the same characteristics can appear as a function of PTSD symptoms through the person's try to overcome the stress. This becomes the objective of many studies. There is a correlation between the exposure to war trauma and the occurrence of drug and alcohol abuse (1). Possible explanations for such high percentage of PTSD and drug and alcohol abuse co-morbidity are neurobiological factors (disorder in adrenergic system and opiate system in PTSD). Adrenergic activity suppression, caused by the consumption of alcohol, central depressors, marijuana or psychoactive substances, should provide temporary relief to those who suffer from intrusive and hyper arousal symptoms. In this manner, deficit of opioids is regulated through self-medication by heroin, methadone and other psychoactive substances (2, 3). Many authors have investigated neurotransmitter alterations (serotonin and catecholamine) in CNS, as well as opioid deficit as a cause of alcohol and drug abuse (4, 5, 6).

High co-morbidity percentage makes the treatment choice more difficult because clinicians have to decide whether to treat that associated disorder before or after the treatment of PTSD.

There are certain scientific dilemmas according to the differentiation between pure and co-morbid PTSD forms from the prognostic and therapeutic point of view. Further researches have to be performed in order to

obtain the clarification of these scientific dilemmas regarding the aetiology and personal constellation as factors influencing the appearance of pure or co-morbid PTSD form.

## Methodology

### Type of research

The research was performed at the Psychiatric Clinic in Sarajevo. According to its type it was epidemiological, retrospective-prospective and analytic-descriptive.

### Sample

Subjects chosen for this research were patients of Psychiatric Clinic - Department for Stress Related Disorders. All of them had expressed psychopathology of PTSD and co-morbid disorders. Examinees were divided in two homogenous groups according to their gender and age (majority was between 20 and 40 years of age). The first group consisted of 30 examinees with PTSD symptoms only while the second one had 30 examinees with both PTSD and other psycho-disorders' symptoms. This research was conducted during the period from April 1998 to October 1999.

### Research tools

The tools of our research were: Standard Psychiatric Interview, Harvard Trauma Questionnaire (HTQ), Hamilton Anxiety Rating Scale, Hamilton Depression Rating Scale, and Drug and Alcohol Abuse Checklist. Working diagnosis was free from psychiatrists' subjectivism and done according to the structured clinical interview that was based on DSM-IV criteria, ICD-10 criteria and HTQ questionnaire. Final diagnosis was established after both criteria were completely fulfilled (7, 8).

## Results

Relevant research data were analysed and adequately statistically processed.

**Table 1** Age according to the patients' gender

Gender	Age							
	Up to 24 years		25-44 years		45-64 years		Total	
	Group I	Group II	Group I	Group II	Group I	Group II	Group I	Group II
Male	2 (100)	5 (100)	13 (72.2)	14 (93.3)	6 (60.0)	17 (85.0)	21 (70.0)	26 (86.6)
Female	0 (0)	0 (0)	5 (27.8)	1 (6.7)	4 (40.0)	3 (15.0)	9 (30.0)	4 (13.4)
Total	2 (6.6)	5 (16.6)	18 (60.0)	15 (50.0)	10 (33.3)	20 (66.6)	30 (100)	30 (100)
$X^2 = 15.107$ $p = 0.0091$ $X^2_m = 1.845$ $p = 0.397$ $X^2_f = 1.034$ $p = 0.5963$								

### Demographic characteristics of examined patients

The predominant age of patients ranged from 25 to 44 years with 18 examinees (60%) in the first group and 15 examinees (50%) in the second group of patients. On the second place was group aged 45-64 years, with 10 examinees (33.3%) from the first group and 20 (66.6%) from second group of patients. Only 7 patients were younger than 24 years - 1 (6.6%) from the first group and 5 (16.6%) from the second group of patients.

$X^2$ -test value is suggesting that there is no significant difference between the groups according to their gender and age.

### Overview of co-morbid symptoms related to PTSD

All types of psychic disorders associated with PTSD are presented in Tables 2 and 3.

As it is presented in Table 2 and Table 3 the most common psychic disorder associated with PTSD is personality disorder-from group F 60.3 (emotionally unstable personality disorder, impulsive type) in 7 male patients (23.3%). The same disorder was not observed among female patients.

These two Tables are presenting PTSD co-morbid disorders as follows: the most common is personality disorder 46.6% (14 male patients), while among female patients it was not recorded (0%); on the second place is depression-depressive episodes without psychotic symptoms (F 32) in 8 patients (26.6%) from which 5 males (62.5%) and 3 females (37.5%); on the third place is drug abuse (F 10) in 4 male patients only (13.3%); on the fourth place is alcohol abuse (F11) in 2 male patients only (6.7%) and the last one - dissociative disorder (F 44) in only one female patient (3.3 %).

## Discussion

PTSD rarely occurs in its pure form and it is usually manifested combined with other serious psychic disorders. Co-morbid PTSD form incidence is relatively high.

**Table 2** Types of psychic disorders associated with PTSD

Gender	Diagnosis											
	F10	F11	F32.0	F32.2	F32.3	F33.3	F44.7	F60.3	F60.31	F60.4	F62.0	Total
Male	4 (100)	2 (100)	3 (60.0)	1 (50.0)	1 (100)	1 (100)	0 (0)	7 (100)	2 (100)	1 (100)	4 (100)	26(86.6)
Female	0 (0)	0 (0)	2 (40.0)	1 (50.0)	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	4 (13.4)
Total	4 (13.3)	2 (6.7)	5 (16.6)	2 (6.7)	1 (3.3)	1 (3.3)	1 (3.3)	7 (23.3)	2 (6.7)	1 (3.3)	4 (13.3)	30 (100)
X <sup>2</sup> = 4.021      p=0.134												

**Table 3** Types of psychic disorders associated with PTSD

Gender	Diagnosis							Total
	F10	+F11	F32	F33	F44	F60	F62	
Male	4 (100)	2 (100)	5 (62.5)	1 (100)	0 (0)	10 (100)	4 (100)	26 (86.6)
Female	0 (0)	0 (0)	3 (37.5)	0 (0)	1 (100)	0 (0)	0 (0)	4 (13.4)
Total	4 (13.3)	2 (6.7)	8 (26.6)	1 (3.3)	1 (3.3)	10 (33.3)	4 (13.3)	30 (100)
X <sup>2</sup> = 4.021      p=0.134								

According to our research results and adequate literature data it may be noticed that PTSD is equally present in both genders, mostly in persons aged between 25 and 45 years (Table 1). Similar results considering demographic characteristics may be observed in previous researches dealing with the same medical problem (9).

Many publications, like those describing Vietnam Veterans' psychic disorders, are indicating a high psychic PTSD co-morbidity in this population. Mc Fall et al. studied the other diagnosis predictions (PTSD co-morbidity) in a broader Vietnam Veteran population (according to the different stress event) collected from the clinical and non-clinical resources. The results are indicating that PTSD combined with dissociative disorders may be best explained in the war context and in relation to the other diagnostic psycho-combinations. It was noticed that high risk special tasks, as well as exposure to the bizarre deaths were more notable than other stressful experiences regarding other diagnostic psycho-combinations (9).

As it is presented in Tables 2 and 3 we have found the following psycho disorders associated with PTSD: personality disorder in 46.6% patients from which (F 60.3) Borderline personality disorder 23.3%, (F 62.0) personality disorder after catastrophic event 13.3%, personality disorder- impulsive types (F 60.31) 6.7% and (F 60. 41) 3.3%. It is important to emphasize that there was no women among patients with personality disorders. On the second place is depression in 29.9% of patients: depression without psychotic symptoms (F 32) was found in 26.6% of patients and depression with psychotic symptoms (F 33) in 3.3% of patients. In this group of patients there were two times more female than male patients. On the third place is drug abuse (F 10) in 13.3 % of patients - males only, following by the alcohol abuse (F 11) in 6.7% of patients - males only. Dissociative disorders (F 44) are on the last place,

recorded in 3.3% of patients - females only.

Our research results are similar to those found in the relevant scientific references. Many authors have explored PTSD with coexisting disorder. A group of authors has found PTSD associated with personality disorder - impulsive type in 10% of patients (10). Other authors have recorded PTSD associated with Borderline personality disorder as a frequent medical problem, in up to 69.5% of patients. They have also found PTSD associated with other psycho-disorders: severe depression, obsessive-compulsive disorder, social and specific phobias. These authors have concluded that patients suffering from Borderline personality disorder are prone to develop PTSD and other psycho-disorders twice as much than patients without this type of personality disorder (10, 11). In our research we have found that, among all personality disorders, Borderline type is the most frequent (found in 23.3% of patients). Numerous literature data have pointed out co-morbidity of severe depression associated with PTSD - found in 50% of patients (12, 13, 14). A group of authors have concluded that the health recovery is six months longer in cases of PTSD with co-morbidity (15). PTSD associated with depression (found in 50% of patients), as well as PTSD associated with other psycho-disorders (anxiety, affective, drug and alcohol abuse) has been elaborated by the group of authors in their research (16). Mollica et al. have explored relations between trauma and PTSD symptoms in Cambodian refugees and have discovered that 39% of patients has PTSD with depression (among them 25% with invalidity). They have discovered a greater risk for invalidity development in patient with co-morbid PTSD, irrespective of age, trauma or previous health status. Same authors have found PTSD co-morbid with depression in 49% of patients emphasizing pre and post-migrational risk (17).

Many authors have explored functioning level in patients with PTSD and major depression and have concluded

that co-morbidity is characterized by more the severe symptoms than PTSD without co-morbidity (18).

As it is listed in the results of our research, according to the frequency, PTSD associated with drug abuse is on the third place (13.3%) while alcohol co-morbid with PTSD is on the fourth place (6.7%). These co-morbidity types were observed among males only. A group of authors have had similar findings during their study and they have emphasized the presence of high risk for the addiction development during the treatment of different psychic disorders what should be taken in permanent consideration (19). Some authors have found even 60-80% of drug and alcohol abuse among clinically treated Vietnam Veterans (20, 21).

Drug abuse that has occurred after the attempts of self-medication, with heroin, methadone and cocaine, has been reviewed by many authors (11).

## Conclusion

Our research has revealed the following PTSD co-morbidity:

- Personality disorder 46.6% (1/3 permanent personality disorder),
- Depression 29.9%, (1/4 associated with psychotic symptoms),
- Drug abuse 13.3%,
- Alcoholism 6.7%,
- Dissociative disorders 3.3%.

Our research findings are indicating that co-morbid symptoms have significant regressive influence on the PTSD course and prognosis.

## Sažetak

Postrautumatski stresni poremećaj (PTSP) i komorbiditet

Posttraumatski stresni poremećaj (PTSP) je često praćen prisustvom drugih psihičkih oboljenja kao: zloupotreba droga i alkohola, depresija, poremećaj ličnosti, generalizirani anksiozni poremećaj, opsesivno-kompulzivni poremećaj, shizofreni poremećaj i sl. Ovo donekle predstavlja klinički problem u razlučivanju čistih simptoma PTSP u odnosu na istovremeno postojanje i drugih psihičkih poremećaja.

Cilj rada je prikazati najčešće psihičke poremećaje koji se javljaju uz PTSP.

Od aprila 1998. do oktobra 1999. godine, analizirali smo dvije grupe ispitanika podijeljenih na po 30: prva grupa je formirana od pacijenata sa simptomima PTSP, a druga od ispitanika sa PTSP i nekim drugim psihičkim poremećajem (komorbiditetna). Podjednako su zastupljena oba spola unutar obje grupe bez bitnije prevalencije dekadnog životnog doba. Od instrumenata istraživanja korišten je standardni psihijatrijski intervju, HTQ, Hamiltonove skale: za depresiju i za anksioznost, Check lista na ovisnosti. Od simptoma komorbiditetne grupe evidentirali smo sljedeće poremećaje: poremećaj ličnosti sa 46,6 % od čega je najviše (13,3%) sa trajnim poremećajem ličnosti nakon traumatskog iskustva; depresija sa 29,9%; (depresija bez psihotičnih simptoma 26.6%, i 3,3% depresija sa psihotičnim simptomima; zloupotreba droga sa 13,3%; zloupotreba alkohola sa 6,7 % i disocijativni (konverzivni poremećaj) sa 3,3%. Psihičke poremećaje sa PTSP imaju češće osobe srednje životne dobi, bez obzira na spolnu, dobnu, edukativnu, bračnu situaciju.

Komorbiditeti imaju signifikantno regresivni uticaj na tok i prognozu PTSP.

**Ključne riječi:** PTSP, komorbiditet, depresija, poremećaji ličnosti

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