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Evaluation of Types of Traumatic Events and Comorbid Mental and Physical Diseases in Adults with Posttraumatic Stress Disorder: A Retrospective Study

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ABSTRACT

Introduction: In this study, mental and physical illnesses, types of traumatic events, frequency of recurrence and sociodemographic characteristics of patients with Posttraumatic Stress Disorder (PTSD) were examined.

Methods: The study included the files of 179 patients over the age of 18 who were admitted to the psychiatry outpatient clinic between 01.12.2010 and 31.01.2023 and diagnosed with PTSD. The data was obtained from the hospital automation system and national database.

Results: Of the 44 patients diagnosed with a single comorbid mental illness, 45.5% had mixed anxiety and depressive disorder and 36.4% had a depressive disorder. The rate of patients with comorbid mental illness in PTSD was 51.4%, and chronic physical illness was observed in 59.8%. In our study, sexual trauma and domestic violence had the highest recurrence rates among traumatic events (80%).

Conclusion: Comorbid mental and physical illnesses are common in PTSD. The lack of adequate examination time and an appropriate therapeutic environment causes this diagnosis to be missed by clinicians and prevents patients from getting an ideal health service. In order to prevent recurrences of sexual traumas and domestic violence, the competent authorities must make practices of protecting socially disadvantaged groups more effective and act in accordance with international conventions.

Keywords: Anxiety disorders, depressive disorder, domestic violence, post-traumatic stress disorder, sexual trauma

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INTRODUCTION

Traumatic events upset the usual behavioural system that gives people a sense of control, connection and meaning (1). In other words, in the words of individuals with Post-traumatic Stress Disorder (PTSD), they create a negative milestone in their lives. This situation predisposes the person to many mental illnesses. On the other hand, it is known that the presence of a previous mental illness is one of the predictors of mental trauma (2). Therefore, comorbidity is common in individuals diagnosed with PTSD. Considering the data from many studies, more than 80% of individuals with PTSD have at least one comorbid mental illness (3). The most common mental illnesses associated with PTSD are depressive disorders, alcohol and substance use disorders, and anxiety disorders (2). However, somatic symptom disorder and conversion disorders may also be related to trauma (4,5).

Although it is known that many somatic symptoms are observed in trauma victims, several studies show that individuals with PTSD have a higher risk of developing physical diseases compared to the average population (6–8).

In a study comparing The Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) and DSM-5 regarding the prevalence of PTSD, it was reported that the lifetime, last 12 months and last 6 months PTSD prevalence was 8.3%, 4.7% and 3.8%, respectively, based on DSM-5 diagnostic criteria (9). However, in studies conducted according to the previous criteria such as DSM-III and DSM-IV, the lifetime prevalence of PTSD varies between 1–13% in studies conducted with sample groups representing the general population (10). Since no population-based epidemiologic screening study has been conducted in the field of mental trauma in Türkiye to date, we do not have a clear opinion on this issue. On the other hand, in a study which compiled the studies on the prevalence of PTSD conducted in Türkiye, PTSD prevalence rates were reported to range from 12.5% to 63% for different periods between one month and four years (11). It should be noted that most of the studies analyzed in this review were conducted in post-earthquake disaster areas and have various methodological shortcomings, such as self-report scales, random sampling methods and cross-sectional designs

Highlights

- **Post Traumatic Stress Disorder (PTSD) is often overlooked in clinical practice.**
- **Comorbid mental and physical illnesses are common in individuals with PTSD.**
- **Sexual traumas and domestic violence recur frequently.**

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(10). Despite the data of all these studies, it is difficult to say that PTSD is diagnosed in clinical practice in our country with a frequency that would make these prevalence rates understandable. There are also studies in the international literature showing a discrepancy between the prevalence rates obtained in studies on PTSD and the rate of patients diagnosed with PTSD observed in clinical practice (12–14). In a study investigating the lifetime prevalence of traumatic events and existing PTSD in 275 patients with different mental illnesses such as schizophrenia and bipolar disorder, it was reported that 98% of the patients were exposed to at least one traumatic event, and 43% had PTSD. However, only three out of 119 patients with PTSD had this diagnosis in their files (12). Although it is controversial that the number of patients who meet the diagnostic criteria for PTSD among patients admitted to psychiatry clinics is proportionally high, it is emphasized that the diagnosis of PTSD is missed by clinicians. It has been suggested that the reasons for this may include inadequate services in health systems, the reluctance of traumatized individuals to seek treatment, lack of adequate screening and overlooking the actual diagnosis due to frequent comorbidities (13,14).

This study aimed to examine clinical characteristics such as the comorbidity frequency of PTSD with other mental and physical illnesses and what these illnesses are in adult individuals diagnosed with PTSD in the psychiatry clinic of a hospital, and some sociodemographic characteristics such as the age and gender of these patients.

METHODS

Approval for the study was obtained from Kanuni Sultan Süleyman Training and Research Hospital Clinical Research Ethics Committee with the date of 15.06.2023 and number 2023.05.61. The principles of the Declaration of Helsinki were followed during the study.

Sample

The files of patients over the age of 18 who were diagnosed with PTSD and admitted to Kanuni Sultan Süleyman Training and Research Hospital psychiatry outpatient clinic between 01.12.2010–31.01.2023 were included in the study. The first application was taken as the basis if there were two or more applications with the same diagnosis. A total of 191 patients diagnosed with PTSD were identified among 221,242 people who applied to the psychiatry outpatient clinic of the hospital during the period in question. The study excluded three patient files that did not meet the criteria for the diagnosis of PTSD in the International Classification of Disease 10 (ICD-10) and DSM-5 stating that "at least 1 month should have passed since the traumatic event" and nine patient files with no data other than the diagnosis. A total of 179 patient files that met the inclusion criteria were included in the study. Age, gender, history of psychiatric illness, and patients' diagnoses were obtained from their electronic files in the hospital automation system. The physical disease information was obtained from the electronic files in the hospital automation system and the national database (medulla and e-nabiz systems).

Classification of Mental-Physical Illnesses and Traumatic Events

After obtaining the patient diagnoses in the files, both premorbid and comorbid mental illness diagnoses of the individuals included in our study were categorized as depressive disorder, anxiety disorder, mixed anxiety and depressive disorder, alcohol-substance use disorder, adjustment disorder, obsessive-compulsive disorder, psychotic disorder, mood disorder, sleep disorders and other disorders according to ICD-10 classification.

In our study, we considered physical diseases extending over one year or longer and requiring regular examination and medical follow-up for at least three months and at least once a month as chronic (15) and examined whether the patients in our study had chronic physical diseases accordingly.

When classifying the traumatic events the patients experienced, we considered the main event experienced by the patient. On the other hand, in traumatic stories where different events may be intertwined, we took into account the main thought content of the patient's symptoms (e.g. the central theme of the re-experiencing symptom) and accordingly classified the main traumatic events as follows: Accidents, mass trauma, physical violence, traumatic grief, sexual trauma, witnessing a traumatic event, psychological violence and torture.

Statistical Analysis

In this descriptive study, continuous variables were shown as median, maximum, minimum and quartile 25–75. Grouped data were evaluated as percentage and frequency. Data of categorical variables were given as n (%). The data obtained from the participants were analyzed using the IBM Statistical Package for Social Sciences (SPSS) program version v. 21 statistical package software.

RESULTS

Between 01.12.2010 and 31.01.2023, the number of people who came to the psychiatry clinic where the study was conducted as the first application was 221, 242.

The median age of the 179 patients diagnosed with PTSD who were included in the study was 32 years (Quartile 25–75=24–42); the oldest patient was 79 years old, and the youngest patient was 18 years old. It was observed that 48.6% of the patients were female (n=87) and 51.4% were male (n=92).

Findings on the type, frequency and repetition status of primary traumatic events are summarized in Table 1.

The findings regarding the number and distribution of premorbid mental disorders in PTSD patients in our study are summarized in Table 2, and the findings regarding the number and distribution of comorbid mental disorders are summarized in Table 3.

When the time of diagnosis and the follow-up period were evaluated together, the rate of patients with additional mental disorders to PTSD was 51.4%.

When the patients were evaluated in terms of the presence of chronic physical illness that started after the traumatic event, 59.8% had chronic physical illness.

DISCUSSION

In our study, the records of patients diagnosed with PTSD admitted to the psychiatry outpatient clinic were analyzed for 13 years, and only 179 patients who met the inclusion criteria were identified. In our opinion, this is a very low number for a hospital which accepted more than two hundred thousand new patients in the psychiatric outpatient clinic during this period. In this respect, the findings of our study are similar to those that reveal the discrepancy between the known prevalence rates of PTSD and the frequency of diagnosis in clinics. This may be due not only to the reluctance of traumatized individuals to seek treatment but also to the inadequate time allocated to psychiatric patients in our healthcare system, especially in public hospitals, the inability to provide an environment of trust due to the difficulties in providing an ideal therapeutic environment, and the overlooking of the actual diagnosis in the limited examination time due to the already frequent comorbidities in PTSD. In addition, due to the legal responsibilities that a diagnosis of PTSD may impose on the psychiatrist, we believe that clinicians who think that the current system does not protect physicians sufficiently and

Table 1. Primary type of traumatic event and repetition status

Primary type of traumatic event	Repetition status	n	%	Total n	Total %
Accidents	No-repeat	52	85.2	61	34.1
	Single event	5	8.2		
	Multiple events	4	6.6		
Mass trauma	No-repeat	20	71.4	28	15.6
	Single event	3	10.7		
	Multiple events	5	17.9		
Physical violence	No-repeat	15	68.2	22	12.3
	Single event	4	18.2		
	Multiple events	3	13.6		
Traumatic grief	No-repeat	14	77.8	18	10.1
	Single event	3	16.7		
	Multiple events	1	5.5		
Sexual trauma	No-repeat	2	20.0	10	5.6
	Single event	1	10.0		
	Multiple events	7	70.0		
Witnessing a traumatic event	No-repeat	7	70.0	10	5.6
	Single event	2	20.0		
	Multiple events	1	10.0		
Domestic violence	No-repeat	1	20	5	2.8
	Single event	1	20		
	Multiple events	3	60		
Psychological violence	No-repeat			4	2.2
Torture	No-repeat			2	1.1
Missing	No-repeat			19	10.6

Table 2. Number and distribution of premorbid mental disorders in patients with pottraumatic stress disorder

	n	%
Presence of a premorbid mental disorder		
None	149	83.2
Single	20	11.2
Multiple	10	5.6
Total	**179**	**100**
Diseases of those with a single premorbid mental disorder		
Depressive disorder	7	35
Mixed anxiety and depressive disorder	6	30
Anxiety disorder	3	15
Alcohol or drug use disorder	1	5
Obsessive-compulsive disorder	1	5
Other or unknown disorders	2	10
Total	**20**	**100**
Diseases of those with more than one premorbid mental disorder		
Depressive disorder	8	40
Mixed anxiety and depressive disorder	5	25
Anxiety disorder	2	10
Alcohol or drug use disorder	1	5
Obsessive-compulsive disorder	1	5
Psychotic disorder	1	5
Adjustment disorder	1	5
Other or unknown disorders	1	5
Total	**20**	**100**
Distribution of mental disorders of patients with more than one premorbid mental disorder		
Patient	Premorbid diagnosis 1	Premorbid diagnosis 2
Pre 1	Depressive disorder	Alcohol or drug use disorder
Pre 2	Mixed anxiety and depressive disorder	Adjustment disorder
Pre 3	Depressive disorder	Psychotic disorder
Pre 4	Depressive disorder	Mixed anxiety and depressive disorder
Pre 5	Other or unknown disorders	Mixed anxiety and depressive disorder
Pre 6	Depressive disorder	Anxiety disorder
Pre 7	Depressive disorder	Obsessive-compulsive disorder
Pre 8	Depressive disorder	Mixed anxiety and depressive disorder
Pre 9	Depressive disorder	Mixed anxiety and depressive disorder
Pre 10	Depressive disorder	Anxiety disorder

Table 3. Number and distribution of comorbid mental disorders in PTSD patients

	n	%
Presence of a single comorbid mental disorder at the time of initial diagnosis		
Mixed anxiety and depressive disorder	20	45.5
Depressive disorder	16	36.4
Anxiety disorder	2	4.6
Alcohol or drug use disorder	1	2.3
Obsessive-compulsive disorder	1	2.3
Mood disorder	1	2.3
Other disorders	3	6.8
Total	**44**	**100**
Presence of more than one comorbid mental disorder at the time of initial diagnosis		
Depressive disorder	6	37.5
Anxiety disorder	4	25
Mixed anxiety and depressive disorder	3	18.8
Alcohol or drug use disorder	1	6.2
Obsessive-compulsive disorder	2	12.5
Total	**16**	**100**
Distribution of mental disorders of patients with more than one comorbid mental illness at the time of initial diagnosis		
Patient	Comorbid diagnosis 1	Comorbid diagnosis 2
Co 1	Anxiety disorder	Mixed anxiety and depressive disorder
Co 2	Anxiety disorder	Depressive disorder
Co 3	Obsessive-compulsive disorder	Mixed anxiety and depressive disorder
Co 4	Depressive disorder	Mixed anxiety and depressive disorder
Co 5	Alcohol or drug use disorder	Depressive disorder
Co 6	Anxiety disorder	Depressive disorder
Co 7	Obsessive-compulsive disorder	Depressive disorder
Co 8	Anxiety disorder	Depressive disorder

Presence of comorbid mental disorder at initial diagnosis and during follow-up			
Presence of comorbid mental disorder at initial diagnosis	Presence of comorbid mental disorder during follow-up	**n**	**%**
None n: 127 70.9%	None	87	68.5
	Single	31	24.4
	Multiple	9	7.1
	Total	127	100
Single n: 44 24.6%	None	14	31.8
	Single	19	43.2
	Multiple	11	25
	Total	44	100
Multiple n: 8 4.5%	None	1	12.5
	Single	1	12.5
	Multiple	6	75
	Total	8	100

who complain about the already heavy workload may have a defensive attitude towards making this diagnosis. As an additional detail that may suggest this, it was observed that five patients in our study had the same mental complaints in the follow-ups before they received the first PTSD diagnosis and the clinician considered PTSD as the diagnosis. However, no official diagnosis of PTSD was entered into the system.

Our study found that males outnumbered females among patients diagnosed with PTSD admitted to the psychiatry outpatient clinic. This finding is different from the general acceptance in the literature on PTSD. We think that the possible reason behind this may be related to the fact that the hospital where our study was conducted is also where many male officers are brought in for military examination for treatment and reporting procedures.

The median age of the patients in our study was 32 (youngest 18, oldest 79). Koenen et al. (2002) (16) found a median age of 26 years (youngest 15, oldest 71). In the study conducted by Leskin et al. (2002), the mean age of the participants was 35 (youngest 15, oldest 54) (17). In this respect, our finding regarding age is consistent with the literature.

In our study, when the recurrence of the traumatic event was evaluated according to the type of the main traumatic event experienced by the patients, it was found that the event's recurrence was the highest in the sexual trauma group. In this group, 90% of the patients diagnosed with PTSD due to sexual trauma were women. Previous studies have also revealed that women are exposed to sexual trauma more than men in childhood and adulthood (18,19). Our study observed that the main traumatic event was recurrent in 80% of patients in this group, and 40% had a history of recurrent abuse starting from childhood. In the literature, this is defined as *revictimization*; it is emphasized that individuals who experienced abuse in childhood are much more likely to experience retraumatization in adolescence and adulthood (20). It has also been reported that women who have been sexually traumatized are at risk for recurrence of trauma (21). In our study, domestic violence was another

type of traumatic event with a high recurrence rate along with sexual trauma. All victims of domestic violence were women. It was determined that the traumatic event did not recur in 20% of these patients, occurred once more in 20%, and occurred more than once in 60%. Studies in this field reveal that the lifetime prevalence of isolated incidents of domestic violence in the general population is similar for men (20%) and women (25%). However, women are more at risk of repeated coercive, sexual or physical violence (22). As a study supporting this data, it was reported in the British Crime Survey for England and Wales that 89% of the people who were exposed to four or more domestic violence attacks in 2001 were estimated to be women (23). Some studies state that domestic violence has the highest rate of repeated victimization in any violent crime (22).

Numerous studies on sexual and domestic violence have been conducted in Türkiye. Güvenç et al. (2014), in a review of 21 original studies focusing on intimate partner violence against women in Türkiye which was published between 2000 and 2010, found that the rate of intimate partner violence ranged between 13% and 78% (24).

Schuster et al. (2017) examined 56 studies in a systematic review investigating the prevalence of sexual aggression and the relationship structures of victims and perpetrators in Türkiye. It was revealed that there was a wide range in the prevalence rates of sexual victimization among the studies. About the evidence of relationship structures between victims and perpetrators, the majority of studies found that the perpetrator was an intimate partner or a family member (25). These results show us how important it is for authorities to act more responsibly in the face of domestic violence and not to turn a blind eye to domestic violence and abuse, such as incest, which the World Health Organization calls a 'silent health emergency' (26). Perhaps the main issue that needs to be discussed is this: Does the myth of sanctity of family, which is frequently emphasized by the authorities in Türkiye, serve to keep this spiral of violence and abuse a secret by the perpetrators of domestic violence and abuse and those who witness their actions? In the study conducted by Schuster et al., no consistent correlation was found regarding the gender, age, education or the role of alcohol in the victims or perpetrators. On the other hand, factors such as exposure to or witnessing physical or domestic violence in the family have been consistently shown to be associated with a higher likelihood of sexual victimization (25).

In our study, when individuals with PTSD were evaluated in terms of premorbidity, it was found that the patients most frequently had depressive disorder, and mixed anxiety and depressive disorder before the diagnosis of PTSD. According to the literature, it is known that the presence of a previous mental illness predisposes individuals to PTSD (2). When premorbid characteristics of individuals diagnosed with PTSD are examined, it is reported that they are predisposed to anxiety and depression (27).

In our study, when comorbid mental disorders of the patients at the time of diagnosis were evaluated, mixed anxiety and depressive disorder and depressive disorder were found most frequently. In the literature, the most common mental disorders comorbid with PTSD are depressive disorder, alcohol and substance use disorder and anxiety disorder (2). In epidemiologic studies, the prevalence of comorbid alcohol abuse in individuals with PTSD varies between 9.8% and 61.3% (28). Similarly, both epidemiological studies and clinical studies have found a high comorbidity of substance use disorder (SUD) and emphasized that there is a reciprocal relationship between PTSD and SUD. In these studies, the prevalence of PTSD in individuals diagnosed with SUD was found to vary between 6% and 75% (29). We think the low number of patients (1%) with comorbid alcohol and substance use disorders at the time of diagnosis and during follow-up in our study may have several reasons. Firstly, in the current system that prevents establishing a healthy therapeutic relationship and has limited examination duration, patients may not disclose themselves due to stigmatization and concerns about trust. Secondly, clinicians may not obtain a sufficient history of alcohol and substance use from individuals with PTSD in a limited time. Thirdly, even if they do take such a history, clinicians may not record the diagnosis of alcohol and substance use disorder or related information notes in the electronic system in order to avoid further stigmatization and legal burden for patients who have PTSD on the one hand and additional physical/mental illnesses on the other.

It was observed that 52.4% of the patients in our study had mental disorders comorbid with PTSD. The findings of many studies in the literature have revealed that this rate is more than 80% (3). Since the data in our study were obtained from standard outpatient clinic examinations rather than clinical interviews for research purposes, the actual rate may be higher than the findings in our study.

When the patients included in our study were evaluated regarding chronic physical disease, 59.8% were found to have a chronic physical disease. In a study conducted in Canada on the prevalence of chronic diseases (30), the prevalence of chronic diseases in Canada in 2005 was 54.9% for all ages, excluding chronic mental diseases. Accordingly, the patients in our study were found to have a slightly higher rate of chronic physical diseases than the general population. According to the literature, physical diseases are more common in individuals with PTSD (6). The traumatic event experienced by many individuals with PTSD also causes physical damage. It is also known that somatic symptoms are observed in individuals with PTSD independently of their physical illnesses. In addition, comorbid mental illnesses, which are common in individuals with PTSD, may also predispose them to chronic physical illnesses in the long term (loss of social and occupational functioning, a more sedentary life, etc.). Of course, further research is needed to assess whether these assumptions are valid.

Our study has some limitations. First, since the search was made through ICD codes in hospital records to identify patients diagnosed with PTSD, it is possible that non-coded patients could not be reached. Secondly, the findings obtained cannot be generalized as they are limited to the data of a single hospital. Thirdly, limited information about the cause-and-effect relationship was obtained since it was a descriptive study. Finally, there are information limitations because the data was obtained from standard outpatient clinic interviews, not structured clinical interviews using measurement tools such as Structured Clinical Interview for DSM (SCID).

As a result, although Posttraumatic Stress Disorder is a mental illness with well-defined specific symptoms in ICD-10 and DSM-5, it seems to be a diagnosis clinicians often overlook in clinical practice. It is essential for individuals with PTSD and the healthcare system to improve the factors that lead to this situation, both patient (search for trust, stigmatization, etc.) and clinician (non-ideal interview conditions, time constraints, etc.). In addition, if clinicians keep in mind that comorbid mental and physical illnesses are common in individuals with PTSD, it may both deepen the anamnesis and examinations directly in the mental treatment of these patients and ensure that the need for an interdisciplinary approach is not overlooked in terms of referral to other medical disciplines in terms of physical illnesses. Finally, to prevent the recurrence of sexual traumas and domestic violence, the authorities must make practices to protect socially disadvantaged groups, especially women and children, more effective and act according to the relevant international conventions.

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