The Frequency of Depression and the Comorbidity of Psychotic Disorders at Day Hospital of Psychiatric Clinic, Clinical Center of Sarajevo University

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ORIGINAL PAPER

ABSTRACT

Introduction: Numerous epidemiological international studies as well as knowledge based on clinical experience show high prevalence and the importance of the psychiatric comorbidity with depressive and anxiety disorders. **Goal:** The aim of this study is to analyze prevalence of comorbid anxiety disorders and depression in subjects at the Day Hospital of the Psychiatric Clinic, Clinical Center of Sarajevo University (CCUS) and examine the demographic profile of the patients. **Material and methods:** Study involved 230 randomly selected patients (aged between 18 and 65 years, N=230, who were hospitalized at the Day Hospital of the Psychiatric Clinic of Clinical center of University of Sarajevo from January 1st to December 31st 2011) and who were interviewed by the Structural Clinical Interview (SCID) which generated ICD-X diagnoses and assessment of the comorbidity. Depressive symptoms were assessed by Beck's Depression Inventory with 28 items. Anxiety symptoms were assessed with Beck's Anxiety Inventory scale with 21 items. Study is retrospective, clinical and epidemiological. **Results:** Of the total number of patients (230) it was determined that 107 (46.5%) have depressive episode; 71 (30.9%) anxiety disorder. Comorbidity of these two disorders was found in 14 (6.1%) cases. Anxiety disorders were more represented in women (61.2%), as well as depressive disorders and comorbidity (70.1% and 85.7%). Subjects with depression on average was 52.9±7.4 years old (range 29-64 years), patients with anxious disorders 50±9.5 years (range 22-65 years) while patients with comorbidity of these two entities was at mean age of 54.5±4.5 years. The least common category of education was retired persons and respondents with university education for all three entities. Hospitalization duration for depression, anxiety, and comorbidity of these two disorders is highest for depression (47.1±9.7 days) and shortest in case of comorbidity (45.9±6.9 days). **Conclusion:** Depression and anxiety often coexist. When they occur in comorbidity, both anxiety and depression appear to be more severe. Severely depressed and anxious patients have reduced capacity to work and as such represents a considerable burden to the family and the community. Overview of depression, anxiety and the comorbidity of these two diagnoses (listed as primary diagnosis) in the baseline sample showed that there was most patients with depression (107 or 46.5%), followed by anxiety (71 or 30.9%) and comorbidity with 14 patients or 6.1%. Effective assessment, evaluation, diagnosis and treatment can lead to better treatment outcomes in primary care and improved quality of life.
Key words: depression, anxiety disorders, comorbidity.

1. INTRODUCTION

Numerous international epidemiological studies and knowledge-based clinical experience indicate a high prevalence and the importance of psychiatric comorbidity between depression and anxiety disorders. The frequency of comorbid anxiety disorders in people with depression is about 58% and the prevalence of comorbid depression in patients with anxiety disorders 30% (1). Most frequent comorbidity of depression is with panic disorders, generalized anxiety disorders and posttraumatic stress disorder. Clinical and epidemiological studies have confirmed the clinical impression that the phenomenon of comorbidity is associated with clinical presentation severity (2, 3).

Comorbidity of depressive and anxiety disorders occurs in high rate in primary care and causes a lot of costs to individuals and the society. Also the occurrence of comorbidity

of these disorders complicates the diagnosis and treatment. Effective assessment, diagnosis and treatment lead to faster recovery, but also improve the quality of life (4).

Results of clinical and epidemiological studies indicate a trend that anxiety disorders and depression occur in the comorbid (simultaneously or alternatively) more often than other psychiatric disorders (1, 5, 6).

Results of clinical studies indicate that comorbid anxiety disorders in people with depression cause higher level of dysfunction that is associated with depression alone and having an influence on the increase in suicidal risk ignoring the clinical form of anxiety disorder and impede recovery (7).

On the other hand, comorbid depression adversely affects the clinical features of generalized anxiety disorder, panic disorder and social phobia in terms of intensification of symptoms that result from the primary anxiety disorder but not the other anxiety disorders (1).

2.   GOALS

To make an analysis of the incidence of depression, anxiety, and their comorbidity in patients hospitalized at the Department of Day Hospital of Psychiatric Clinic, Clinical center of Sarajevo University (CCUS) in 2011.

To present prevalence of comorbid depression and anxiety disorders by gender, age, employment status, qualifications and length of hospitalization.

3.   MATERIAL AND METHODS

The subjects of the study are patients (N=230) hospitalized at the Department of Day Hospital of Psychiatric Clinic CCUS, from January 1st to December 31st 2011. Respondents were randomly selected and interviewed using the Structured Clinical Questionnaire (SCID) for the diagnosis according to ICD-10 and to assess comorbidity (8).

Of this total have been selected 178 patients with depressive and anxiety disorders and their comorbidity. In the study were analyzed the following variables: gender, age, qualifications and length of hospitalization. The study is of epidemiological, retrospective, analytical and descriptive nature, based on observation and analysis of relevant variables. The intensity of depressive symptoms was assessed using the Beck's Depression Inventory with 28 items and anxiety symptoms were assessed using Beck's Anxiety Inventory scale with 21 items (9).

Taken into account are patients with depressive and anxiety disorders, separately and in comorbidity. Excluded from the study are patients who had comorbidity with other disorders. For data processing were used methods of standard and nonparametric statistics, while the level of significance was determined using the Chi-square test and a correlation was analyzed using one-way analysis of variance (ANOVA). The level of significance was defined as $p<0.05$. Results are presented in tables.

4.   RESULTS

This study included 230 patients of whom 192 were diagnosed with depression (F30-F39), anxiety disorders (F40-F49) and comorbidity of these two diseases. The results were statistically analyzed and presented in tables 1,2,3.

Dg 1		N	%	Dg 2		N	%
F30-39	F 31.4	1	0.9	F30-39	F 32.0	1	9.1
	F 32.0	1	0.9				
	F 32.1	27	24.5		F32.1	2	22.2
	F 32.2	32	29.1		F 32.2	3	33.3
	F 33.1	12	10.9				
	F 33.2	33	32.7		F33.2	3	33.3
	F 33.3	1	0.9				
	Total	107	100.0		Total	9	100.0
F40-49	F 40.0	1	1.2	F40-49	F 41.0	1	20.0
	F 40.1	1	1.2				
	F 41.0	1	1.2				
	F 41.1	1	1.2		F 41.1	1	20.0
	F41.2	24	33.8				
	F 42.2	1	1.2				
	F 43.1	16	22.5		F 43.1	1	20.0
	F 43.2	22	30.9				
	F 44.4	1	1.2		F 43.2	2	40.0
	F 45.0	3	3.7				
	F 45.3	1	1.2				
	Total	71	100.0		Total	5	

Table 1. Comparison of primary (Dg 1) and secondary (Dg2) diagnosis

Overview of depression, anxiety disorders and PTSD representation in the reference sample shows that in the group F30-F39 was most frequent diagnosis F32 (60 or 54.5%), followed by F33 (46 or 44.5%), while the other diagnoses in this group was only present in the case of 2 patients or 1.8%. In the group F40-F49 dominates F41.2 (24 or 33.8%), followed by F43.2 (22 or 30.9%).

Comorbidity		
Diagnosis	N	%
Depression	107	46.5
Anxiety	71	30.9
Comorbidity	14	6.1
Other diagnoses	38	16.5
Total	230	100.0

Table 2 .Prevalence of depressive and anxiety disorders and comorbidity

Review the baseline sample (230) indicates that 107 respondents as a first or second diagnosis had depressive disorder (46.5%), 71 or 30.9% anxiety disorder and 14 or 6.1% combined depression and anxiety. The remaining 38 or 16.5% of respondents had other mental disorders.

Hospitalization duration				
Diagnosis	N	Mean	Minimum	Maximum
Depression	107	47.07	5	66
Anxiety	71	46.21	10	60
Comorbidity	14	45.93	34	56
Total	192	46.67	5	66

Table 3 Comorbidity and length of hospitalization, F=0.204; p=0.815

Analysis of the average length of hospitalization shows that the respondents spent approximately the same number

of days regardless of diagnosis with no statistically significant differences (p>0.05).

The longest average stay is recorded in patients with depression (47.1±9.7 days, range 5-66), then slightly less for patients with anxiety disorders (46.2±10.5 days, range 10-60), and the minimum for patients with the comorbidity of these two conditions (45.9±6.9 days, range 5-66).

5. DISCUSSION

Our study included 230 patients of which with depressive disorders, 107 or 46.5%, and with anxiety 71 (30.9%) patients. Epidemiological studies suggest that the prevalence of anxiety disorders is significantly higher than the prevalence of depression (1). Prevalence and clinical significance of comorbid anxiety disorders and depression the authors have investigated on 255 patients. Comorbid diagnosis of anxiety disorders was represented in 50.6% of these respondents (10).

Results of the research by the U.S. authors are also contrary to ours. Major depressive disorder is a major cause of disability in the United States. The prevalence of depression in the United States was 14.8 million adults per year or 6.7% of the total adult population. From this total 25.6% of patients was suffering from depression (11, 12).

As the cause of the increased percentage of depressed patients in our country can be considered war events from the 1990s, which left a large trauma to domestic population. Also the trauma in many cases may be an etiological factor in the development of depressive disorders.

According to our research number of patients with a diagnosis of anxiety was 71 or 30.9% of the baseline sample. About 40 million Americans at age of 18 years and older or about 18.1% of the total adult population suffers from anxiety disorder, which accounts for 69.3% of the total number of mental patients (11, 12). These results do not correlate with ours. Possible reasons for these differences are lack of knowledge and cultural level of the local population that does not visit the psychiatrist's in case of mild forms of anxiety disorders and that the people consider that as the physiological forms of behavior. Milder forms of anxiety disorders are among common people often mix with stage fright, justified fears, introverted personality type. At this low percentage of anxiety in our patients compared to the U.S. affects the slow and peaceful style of living, which is a consequence of post-socialist system of our society. Socialist system, unlike conventional capitalist organization in the United States to an individual is providing a slower pace of life and less professional workload, all of which reduces the amount of stress.

Our research shows that were present 14 patients diagnosed with comorbid depression and anxiety in 2011, representing 6.1% of the total number of diagnoses. Our results do not correlate with the results of researches from Italy. Analyzes performed based on the protocols implemented in 21 primary health facilities reached results that 20% of patients suffer from comorbid anxiety disorders and depression (13).

Depressive disorders occur in 50.6% as comorbid state with anxiety disorders including social phobia (10). The frequency of comorbid anxiety disorders in people with depression is about 58% and the prevalence of comorbid depression in patients with anxiety disorders is about 30%. In fact, most frequent comorbidity of depression is with panic disorder, generalized anxiety disorder and posttraumatic stress disorder (2, 3). Approximately 85% of patients with depression have symptoms and anxiety. Also, depression occurs in 90% of cases as comorbidity with anxiety disorders (4). Analysis by the U.S. author's show that in relation to anxiety and depression adult anxiety is represented in higher percentage (72.9%) then depression (27%) (12, 13). In patients with panic disorder and agoraphobia there is a high incidence of comorbid disorders (85%), while a large number of patients (67%) had two or more comorbid diagnoses (1).

The total number of diagnosed anxiety panic disorder in our study is recorded in one case with primary diagnosis of panic disorder, which represents 0.46% of the total number of patients. Number of patients with obsessive compulsive disorder is also 1, which makes 0.46% of the total number of baseline. Results of the study conducted by group of authors showing that the most common comorbid disorder is specific phobia (62%), then generalized anxiety disorder (50%), depressive episodes (50%) and social phobia (22%) as a specific predictor for the presence of multiple comorbid disorders aside the existence of diagnosis personality disorder (1).

Overview of representation of depression and anxiety disorders in our sample shows that the in the group F30-F39 the most frequent was diagnosis F32 (60 or 54.5%), followed by F33 (46 or 44.5%), while other diagnoses in this group was only present in the case of 2 patients or 1.8%. In the group F40-F49 dominates F41.2 (24 or 33.8%), followed by F43.2 (22 or 30.9%).

The results of our study do not agree with the research by group of authors in the study where the prevalence of comorbid anxiety disorders in people with depression was about 58% and the prevalence of comorbid depression in patients with anxiety disorders, about 30%. In fact, most frequent comorbidity of depression was with panic disorder, generalized anxiety disorder and post-traumatic stress disorder (3).

About 6 million American adults or 2.7% of the total adult population in one year have panic disorder, which represents 10.3% of the total number of mental patients. 2.2 million American adults or 1% of the total adult population suffers from obsessive-compulsive disorder, which represents 3.81% of the total number of mental disorders (11, 12)

Approximately 7.7 million adult U.S. citizens or about 3.5% of the total adult population suffers from posttraumatic stress disorder (PTSD), which makes 13.3% of the total number of mental patients (11, 12).

The topic of our research are also demographic variables (gender, age, employment status) in both depressive and anxiety disorders individually and comorbidity. In depressive disorders there was more women represented (70.1%), as well as in case of anxiety disorders (66.2%) and comorbidity (85.7%).

The analysis indicates that by the average age the patients with comorbidity were the oldest with an average of 54.5±4.5 years (range 46-63 years), followed by patients with depression and the mean age of 52.9±7.4 years (range

(29-64 years) while the patients with anxiety was youngest with 50.1±9.5 years (range 22-65 years).

Our results correlate with the U.S. results in terms of higher prevalence of anxiety disorders in women compared to men. In fact, according to these results, the greater the lifetime prevalence of anxiety disorders is in women (30.5%) than men (19.2%) (5).

The least common category is retired persons and respondents with university education for all three entities. Length of hospitalization for depression, anxiety, and comorbidity of these two disorders is highest for depression (47.1±9.7 days) and shortest in case of comorbidity (45.9±6.9 days).

These results are similar to results from the World literature (14).

6. CONCLUSIONS

After conducted research the following conclusion can be set: From the total number of respondents (230) there was 107 (46.5%) with diagnosed depressive disorders and 71 (30.9%) patients with anxiety disorders. Comorbidity of these disorders was present in 14 (6.1%) patients.

In depressive disorders women are more represented (70.1%), as well as in case of anxiety disorders (66.2%) and comorbidity (85.7%).

The analysis indicates that by the average age the patients with comorbidity were the oldest with an average of 54.5±4.5 years (range 46-63 years), patients with depression with the mean age of 52.9±7.4 years (range 29-64 years) and that the patients with anxiety was youngest with 50.1±9.5 years (range 22-65 years). The least common category was retired persons and respondents with university education for all three entities. Length of hospitalization for depression, anxiety, and comorbidity of these two disorders is highest for depression (47.1±9.7 days) and shortest in the case of comorbidity (45.9±6.9 days).

Finally, the question remains concerning the implications of comorbidity on the prevention of mental illness. Namely, if we take into consideration that patients with comorbid disorders had significantly more severe clinical presentation than patients without comorbidity imposes a dilemma whether early detection and treatment of chronologically primary (mostly anxiety) disorders acted protectively on the occurrence of comorbid, secondary by chronological order (most common depressive) disorder? Or, will the prevention of comorbidity cause the reduction in the intensity and persistence of the primary disorder?

The answer to this question is still not clear enough. In fact, if we take into account the "genetic hypothesis", or the hypothesis that the comorbidity appearance is genetically determined, it would be hardly expected that the prevention will reduce occurrence of comorbid disorders. On the other hand, if we accept the hypothesis that the primary disorder is conditional for the occurrence of comorbid disorders, then this kind of prevention, obviously, will be very successful in preventing the occurrence of comorbid disorders.

As to this question has not yet is given a definitive answer, it is hoped that further research, which would take all this into account will give clear answers regarding complex phenomenon of comorbidity of psychiatric disorders (14, 15, 16).

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