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Brief Report / Kısa Araştırma

Gender Differences in Terms of Axis I and Axis II Comorbidity in Patients with Panic Disorder

Mehtap Arslan Delice[1], Abdulkadir Tabo[2], Gazi Alatas[3], Murat Ilhan Atagun[4]

[1]Psychiatrist, Bakirkoy Training and Research Hospital for Psychiatry, Neurology and Neurosurgery, Istanbul - Turkey
[2]Psychiatrist, Istanbul Public Health Directorate, Mental Health Department Manager, Istanbul - Turkey
[3]Psychiatrist, Deputy Undersecretary, Ministry of Family and Social Policy, Ankara - Turkey
[4]Assist. Prof. Dr., Yildirim Beyazit University, Faculty of Medicine, Department of Psychiatry, Ankara - Turkey

ABSTRACT

Gender differences in terms of Axis I and Axis II comorbidity in patients with panic disorder

Objectives: Comorbidity in psychiatric disorders significantly affects the clinical course, the severity of symptoms, and the response to the treatment. Panic disorder can cause considerable disability, reduction of interpersonal relationships, avoidance of certain social situations, and staying away from high-risk jobs and consequently lowering work performance causing loss of job. A number of studies have shown that panic disorder is observed more frequently in females, indicating a gender risk factor. This study investigated potential gender differences in the distribution of Axis I and Axis II comorbidity.

Method: A total of 63 patients who satisfied the inclusion criteria and had been diagnosed with panic disorder according to DSM-IV participated in this study. 31 (49.2%) patients were female, and 32 (50.8%) were male. Panic disorder was diagnosed with SCID-I (Structured Clinical Interview for DSM-IV-TR Axis I Disorders). Sociodemographic data were collected using a form developed by the researchers, and the Panic Agoraphobia scale was applied in all cases. The existence of possible childhood separation anxiety was also investigated, and SCID-II was applied to identify Axis II personality disorders. Gender differences in demographic and clinical characteristics and in the comorbidity of Axis I and Axis II disorders were then investigated.

Results: The reported prevalence of separation anxiety was considerably higher in the female than in the male patients. Depression, social anxiety disorder, and specific phobias were more common in the female patients, whereas alcohol abuse was more common among the male patients. There was no gender difference in Axis II comorbidity.

Conclusions: This comparison of gender differences in Axis I and Axis II disorders that coexist with panic disorders indicated that comorbidities of depression, social and specific phobias, and alcohol abuse comorbidities are different among the genders. However, there appeared to be gender differences in Axis II comorbidities.

Key words: Comorbidity, gender differences, panic disorder

ÖZET

Panik bozukluğu olan hastalarda Eksen I ve Eksen II eştanısı açısından cinsiyet farklılıkları

Amaç: Eştanılı durumlar psikiyatrik hastalıkların klinik seyrini, belirti şiddetini ve tedavi cevabını önemli ölçüde etkilerler. Panik bozukluğu, önemli ölçüde yeti yitimine neden olabilen, kişilerarası ilişkilerde azalma, belirli sosyal durumlardan kaçınma, yüksek riskli işlerde çalışmaktan uzak durma, dolayısıyla çalışma performansında azalma ve işsiz kalma gibi ağır sonuçları olabilen bir hastalıktır. Diğer psikiyatrik bozukluklarla sıklıkla birlikte bulunabilmekte, bu durum da yeti yitimini artırmaktadır. Birçok çalışmada panik bozukluğunun kadınlarda sık görülen bir hastalık olduğu, kadın cinsiyetinin panik bozukluğu gelişmesinde önemli bir risk faktörü olduğu gösterilmiştir. Bu çalışmada panik bozukluğuna eşlik eden Eksen I ve Eksen II eştanıları dağılımının cinsiyetler arasında farklılık gösterip göstermediğinin incelenmesi amaçlanmıştır.

Yöntem: Çalışmaya içerme ölçütlerini karşılayan ve DSM-IV'e göre panik bozukluğu tanısı alan 31'i (%49.2) kadın, 32'si (%50.8) erkek toplam 63 hasta alınmıştır. Tanı SCID-I kullanılarak konulmuş, sosyodemografik veriler araştırmacılar tarafından geliştirilen formla toplanmış, kişilerin tamamına Panik Agorafobi Ölçeği uygulanmış, çocukluk çağı ayrılık anksiyetesi varlığı araştırılmıştır. Eksen II kişilik bozuklukları SCID-II uygulanarak araştırılmıştır. Sonuçta panik bozukluğu olan her iki cinsiyet arasında demografik, klinik, Eksen I ve Eksen II eştanısı açısından bir fark olup olmadığı araştırılmıştır.

Bulgular: Kadın hastaların anlamlı derecede daha fazla ayrılık anksiyetesi öyküsü bildirdikleri, depresyon, sosyal anksiyete bozukluğu, özgül fobi eştanısının kadın hastalarda daha fazla görüldüğü, alkol kullanım bozuklukları eştanısının ise, erkek panik bozukluğu hastalarında daha sık görüldüğü tespit edildi. Eksen 2 eştanıları açısından gruplar arasında fark yoktu.

Sonuç: Panik bozukluğuna eşlik eden Eksen I ve Eksen II bozuklukları cinsiyet farklılığı açısından karşılaştıran çalışmamızın bulguları göstermiştir ki depresyon, sosyal anksiyete bozukluğu, özgül fobi ve alkol kullanım bozukluğu eştanısı açısından her iki cins birbirinden farklıdır. Çalışmamız, Eksen II eştanısı açısından cinsiyetler arasında farklılık değil benzerlik olduğunu göstermiştir.

Anahtar kelimeler: Eştanı, cinsiyet farklılığı, panik bozukluğu

Address reprint requests to / Yazışma adresi:
Psychiatrist Mehtap Arslan Delice,
Kartaltepe M. Umut S. Yuvam Ap. No: 15/12
Bakirkoy/Istanbul, Turkey

Phone / Telefon: +90-212-409-1515/2340

E-mail address / Elektronik posta adresi:
mhtarslan@yahoo.com

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INTRODUCTION

Comorbidity in psychiatric disorders significantly affects the clinical course, the severity of symptoms, and the response to the treatment (1). Panic disorder (PD) can cause considerable disability, decrease in interpersonal relationships, avoidance of certain social situations, and staying away from high-risk jobs and consequently lowering work performance causing loss of job. A number of studies have shown that panic disorder is observed more frequently in females, indicating a gender risk factor (2). It may often coexist with other psychological disorder, and such increases the loss of ability. For example there are publications indicating that life long togetherness of major depression and PD are about 50 to 60% (3,4). Also, 1/3 to 1/2 of the PD patients meet the agoraphobia criteria (2). It is thought that the separation anxiety suffered in early stages has an etiological role in the progression of panic and agoraphobia. It is noted that panic patients had faced stressful life events in a greater extent than that of the controls and that separation anxiety was diagnosed in the past of about 50% of the agoraphobia patients (5). Coexistence with social phobia, posttraumatic stress disorder, obsessive -compulsive disorder and specific phobia is apparent for PD (2). Substance abuse disorder is also among the psychological disorder coexisting with PD (6). Furthermore, the ratio of comorbidity of the second axis personality disorders with the PD is about 40-50. Especially Class C personality disorders, consisting the types such as avoidant, obsessive compulsive and dependent personality disorders are those coexisting with the illnesses of the individuals with PD (7,8). Many studies indicated that PD was a disorder occurring in females and that female gender is an important risk factor in the progress of PD (9). The research studying the inter-gender differences in PD, indicated that occurrence of PD in females are 2.5 times than that of the males (10), especially course of PD coexisting with agoraphobia is more serious and chronic (11), and that females reported more agoraphobic avoidance (12). In addition to the studies indicating that there are no genetic differences from the point of comorbidity (1), there are also studies indicating that occurrence of comorbidity in females with PD are observed more frequently (13).

In this study, our objective is to review whether or not Axis I and Axis II comorbidity coexisting with PD are showing any differences among the genders. Although there are many studies in the international literature, no study is found in our country in this subject, to determine whether or not any cultural differences and to compare our findings with the results in other studies.

METHOD

42 females and 36 males who visited two outpatient polyclinics at the Bakirkoy Training and Research Hospital for Psychiatry, Neurology and Neurosurgery in consecutive 3 months and received PD diagnosis after clinical interview were admitted to the study, however, out of 10 female patients, 4 of them did not meet the PD diagnosis criteria during the interview with SCID-I, 4 failed to comply while applying the samplings and 2 withdrew their consents after the research had commenced and 4 male patients failed to comply while applying the samplings thus such were left out of the study. Study was completed with the total of 63 patients meeting the inclusion criteria, 31 of which were females (49.2%) and 32 of which were males (50.8%).

Patients between 18-55 of age, literate, having the sufficient mental capacity for administering the scales utilized in the study, and those accepted to participate in was admitted to the study and those not meeting such criteria were left out of study.

Measures

SCID-I: is a clinical interview scale developed and structured by American Psychiatric Association for the Axis-I diagnoses (14). The study for applicability and reliability of SCID-I in Turkish were realized by Çorapçıoğlu et al (15).

SCID-II: is a clinical interview scale developed and structured by US Psychiatry Union for the DSM-III-R

Axis-II diagnoses (16). The study for applicability and reliability of SCID-II in Turkish were realized by Sorias et al. (17).

Panic Agoraphobia Scale: PA specifics in patients received PD diagnosis consist of five sub divisions questioning agoraphobia, avoidance behavior, expectancy anxiety, loss of ability and anxiety about health. The scale was especially developed for the weekly evaluation of the effectiveness of the pharmacologic and psychological therapies. Furthermore, in other psychiatric patient groups, it may be utilized for PD and agoraphobia pathogenic pattern. Adaptation of the scale developed by Bandelow et al. (18) into Turkish was realized by Tural et al. (19).

Process

Socio-demographic data was obtained with the form developed by the researcher, the diagnoses of the axis I psychiatric anomalies were assessed by using the clinical interview form (SCID-I) structured subject to DSM-IV, and the axis II diagnoses were assessed with SCID-II.

For assessing the clinical specifications, Panic Agoraphobia Scale (PAS) was applied; adolescents' age separation anxiety story was questioned retrospectively from the patients herself/himself based on the DSM-IV diagnosis scale. The age when the illness had started was determined by questioning the patient's age by following the PD diagnoses criteria and confirmed with the medial records of the hospital.

The objective and method of the study were explained to all patients in detail and a written approval was obtained with an approval form for participation into the study.

Statistical Analysis

During the statistical procedures, SPSS PC 15.0 Windows version was used and the determinative statistical data, such as frequency, arithmetic average as well as the standard deviation to show the dispersion of such data around the average. When comparing the categorical variables with each other Chi-square test and when comparing the permanent variables average with each other independent groups t tests were utilized. When $p<0.05$, such was accepted considerable.

RESULTS

Socio demographic data of the patients were summarized in Chart I. The total of 63 patients were admitted to the study, 31 of which (49.2%) were female and 32 of which (50.8%) were male. Average age of the patients admitted was 33.1±9.2. Age average of the female patients was 32.3 and that of the male patients were 34.0 (Table 1). In this context, there was no significant difference between the groups from the statistical point of view. Out of 31 female patients 23 (74.0%) were married and out of 32 male patents 21 (65.6%) were married. (Table 1). Although the groups were equal from the points of age and marital status, the education levels of the male patients were higher ($p<0.001$).

Pursuant to the Panic Agoraphobia Scale results, no differences were observed between the groups concerning the severity of the disease and the existence of agoraphobia. It was determined that the female patients disclosed more separation anxiety story ($p=0.04$) in a level quite considerable on statistical level (Table 2). Out of 31 female patients admitted to this study, in 12 patients (38.7%) and out of 32 male

Table 1: Distribution of the sociodemographic specifics of the groups

	Female (n=31)	Male (n=32)	p	χ^2
Age*	32.30±8.59	34.00±9.78	0.46	-
Marital Status				
Married	23	21	0.46	0.55
Other	8	11		
Education*	6.32±1.86	10.31±4.12	<0.001	-

*Student's t test, χ^2: Chi square test

patients, 5 patients (15.6%) were determined to have separation anxiety stories (Table 2).

When the Axis I is compared on the basis of diagnoses, depression (p=0.028), social anxiety disorder (p=0.004) and specific phobia (p=0.009) were observed more in female patients, and alcohol use disorders were seen more in male patients (p<0.001) (Table 3).

The Axis II personality disorder seen the most in the both groups, as might be expected, is the evasive personality disorder. In females, dependent and histrionic personality disorder and in males, obsessive-compulsive personality disorder was observed more. From the point of Axis II diagnoses, there are no considerable statistical differences between the groups.

Table 2: Distribution of clinical specifics of the groups

	Female (n=31)	Male (n=32)	p	χ^2
PAS Point	29.36	34.73	0.25	-
Separation anxiety history	12 (38.7%)	5 (15.6%)	0.04	4.26
Agoraphobia positive	21 (67.7%)	21 (65.6%)	0.86	0.03
Age of diagnosis	30.5±8.0	32.3±10.1	0.43	

Variables with digits are compared with t test and categorical variables are compared with chi square test PAS: Panik Agoraphobia Scale., χ^2: Chi square test

Table 3: Comparison of the groups by Axis I comorbidity

	Female		Male		
	n=31	%	n=32	%	p
Depression	21	67.7	13	40.6	0.028*
Bipolar Disorder	2	6.5	1	3.1	0.488
Dysthymia	2	6.5	4	12.5	0.351
Cyclothymic	0	0.0	2	6.3	0.254
Obsessive Compulsive Disorder	7	22.6	5	15.6	0.352
Post-Traumatic Stress Syndrome	3	9.7	1	3.1	0.294
Social Anxiety Disorder	14	45.2	4	12.5	0.004*
Specific Phobia	13	41.9	4	12.5	0.009*
Generalized Anxiety Disorder	12	38.7	14	43.8	0.44
Somatization	1	3.2	0	0.0	0.492
Hypochondriasis	7	22.6	3	9.4	0.138
Eating Disorders	3	9.7	2	6.3	0.485
Adjustment Disorder	2	6.5	2	6.3	0.681
Alcohol Use Disorder	0	0.0	9	28.1	<0.001
Substance Use Disorder	0	0.0	2	6.3	0.492

Chi square test, *Statistically significant

Table 4: Comparison of the groups by Axis II comorbidity

	Female		Male		
	n=31	%	n=32	%	p
Avoidant	15	48.4	8	25.0	0.054
Dependent	10	32.3	5	15.6	0.105
Obsessive Compulsive	5	16.1	8	25.0	0.289
Passive Aggressive	0	0.0	3	9.4	0.125
Paranoid	3	9.7	6	18.8	0.253
Schizotypal	1	3.2	0	0.0	0.492
Histrionic	9	16.1	5	15.6	0.165
Narcissist	1	3.2	2	6.3	0.512
Borderline	9	29.0	5	15.6	0.165

Chi square test

DISCUSSION

In total 63 patients, 31 of which were females and 32 of which were males were admitted in this study. It is known that PD is seen approximately 2-2.5 times more in females than males. However, in our study, as it was purported to compare the males and females for Axis I and Axis II coexistence, it was observed that the number of persons in each group are equal. The fact that there was no significant difference in statistical sense in our study complies with the literature information noting that there is no difference between the genders for this purpose (11,20). It is seen from the Chart 1 that the education level of the females are significantly lower than that of males. The non compliance of such result of our study with the findings of the studies indicating that there were no differences between the genders from the point of the level of education (11,21), or that the females with PD had higher education level (20) can be explained with the fact that in our society, the education level of the females are lower in general.

In our study, the approximate diagnosis age were 30.5 in females and 32.3 in males. This is the age the patients meet the DSM-IV diagnosis scale. In our study, there is no difference between the genders from such point of view. In the literature, there are conflicting findings in this subject (11,12,20,22,23). This conflict may be because of the fact that the age of commencements was being determined retrospectively, or it may well be caused by the methodological facts such as some studies accepting the first PA as the age of commencement, and some accepting the age when criteria of the PD diagnosis scale are met.

Despite the literature information indicating that the PA density is higher in females (11), in the study, no differences were observed between the genders from the point of PAO score. This result may be explained, because of the cultural structure of our society that the males do not go for therapy before the disease elevates to a certain level. However, the sampling scale and methodology

In epidemiologic studies, the life long agoraphobia prevalence was determined to be 1.8-23.3% in females and 3-5% in males (24,25). Such findings show that females constitute 75% of the agoraphobic population. The reason for this may be explained better, for example, it is argued that the gender roles adopted makes the females more dependent to home, and that the high level of alcohol consumption observed in males may pale a role to sedate the anxiety (26). However, besides the studies stating that agoraphobia is a typical female disease, there are also studies indicating that when the agoraphobic males are compared with agoraphobic females, there are more similarities rather than differences (21). In our study, the agoraphobia rate is determined to be similar in both groups. This conclusion, which we see as a surprise, may be explained with the theory of Witchenn et al. (27): Agoraphobics females either call for a therapy either for light and tolerable agoraphobia or they may not leave home due to severe agoraphobia, thus calling for less therapic help. The other possibility may be the cultural reasons. In India, where agoraphobia is spotted more often in males than females, was indicated due to fact that the females are never going out alone, thus declaring less agoraphobia (28). In our culture, may be a similar reason is behind such a result. Finally, the fact that out study is realized in a small scale may be the reason. Therefore, repeating the study in a wider sampling group may be more suitable for confirming the current results.

There are several studies supporting the theory that there is a relationship between the separation anxiety in childhood with adult panic and phobic disorders (5, 29, 30). Such studies indicate that there is no PD difference between males and females from the point of frequency of the separation anxiety story. In our study, the separation anxiety story in females is found significantly higher than that of males. Such conclusion could be related with the correlation between the separation anxiety – dependent personality disorder, in line with the studies of Barzega et al. (20) indicating that there are more separation anxiety story in females with PD, who have dependent personality disorder. Similarly, in our study, we found out that, although not in a statistical sense, the dependent personality disorders are higher in females than males. The difference may be due to the fact that, culturally, females are less independent in our country. However, the lack of sampling size did not

enable us to determine to analyze the frequency of the separation anxiety among the females having dependent personality disorders and those having not, and this is a limitation.

Comorbidity situations considerably affect the clinical path, severance of symptoms, and cure response of the psychiatric illnesses (1); therefore, it is important to determine such situations. In our study, it is determined that depression, social phobia and specific phobia in females and alcohol abuse in males are significantly high in statistical sense. Beside the studies indicating that there is no difference between the genders from the point of major depression comorbidity in PD patients (12), there are also studies, such as Barzega et al. study (20), indicating that depression in females with PD is observed more often than males (31,32). Pollack et al. (33), found out that increased depression comorbidity in PD is coexistent with elevated phobic avoidance, personality disorder and anxiety sensitivity. According to certain studies, existence of certain anxiety disorders increases the possibility of depression comorbidity (34,35). Especially, social phobia showed coexistence with PD and the lifelong depression risk in social phobia is considerably high (36,37). In our study, it is determined that the social phobia and specific phobia were found considerably high in females. This may be the reason why we found that the depression comorbidity was considerably higher in females with PD. However, in our study, we only looked at whether or not existence of comorbidity show difference between the genders; due to narrow scope of our study, we have to indicate that we have not researched the relationship of the comorbidities with each other. Such finding may be related to methodology of this study, which did not exclude those having the first illness was depression.

Social phobia was found in 45.2% of the females who attended to our study. Phobia comorbidity ratio is 41.9% (Table 3). There are studies indicating that specific phobia and social phobia may play a precursor role for PD (38,39). It is also submitted that "situational type" form of the specific phobia may lead to agoraphobia (40,41). Andersch and Hansen (42) found the social phobia prevalence at the ratio of 36% in a study they carried out with one hundred and twenty three patients. There are studies indicating that there is no difference between the genders from the point of frequency of the social phobia in PD patients (11,20), as well as studies indicating that the frequency of social phobia is more in females (12). The finding in our study that the social phobia ratio is considerably higher in females than males may be explained with the fact that the cultural structure of our society making the females to be dependent of homes as well as encouraging them to act in a behavior carrying socio-phobic characteristics.

Alcohol abuse was not spotted in females, but in males, such was determined at the ratio of 28.1%. From the point of gender differences, alcohol abuse and dependency comorbidity looks as if it is a characteristic for the male patients (11,31). In our study this is found considerably high in line with the literature. Such situation may be explained with the fact that culturally, alcohol use in males is more acceptable among the males. Furthermore, alcohol, utilizing itself as a tool for cure, may help, as shown in our study, the appearance of the anxiety disorder comorbidity in males less than that of the females who do not have such a mean for relaxing.

The most often determined disorder was the evasive personality disorder (48.4%) in females. The second most often disorder determined was the dependent personality disorder at the ratio of 32.3%. In males, the most frequent disorder was the evasive personality disorder at the ratio of 25% together with the obsessive-compulsive personality disorder with the same ratio. Such findings are in line with the results of the studies indicating that the PD patients have, to begin with the evasive and dependent personality disorders, Class C personality disorders (43-45). Barzega et al. (20) indicated that PD patients have at least one personality disorder at the ratio of 68.5% and there is no difference between genders.

Our study has some limitations. The most important limitations are that the size of sampling as well the PD and Axis I and Axis II comorbidities of the study design

as were not of nature enabling more detailed analyses from the point of causal link with each other and that the diagnoses below the threshold were not taken into consideration.

Findings of our study comparing the Axis I and II disorders from the point of genders show that the both genders are different from the point of comorbidities of depression, social phobia, specific phobia, and alcohol abuse disorders. Due to limitation in the design of the study, no data was obtained concerning the causal link between such differences. Such a link may be subject to future research. No difference was found from the viewpoint of Axis II comorbidity. Such finding indicates that, from the point of Axis II disorders, there are similarities between the genders but not differences.

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