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# Sociodemographic Characteristics and Comorbidity in Panic Disorder Patients

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OZET

Panik bozukluğu hastalarında sosyodemografik özellikler ve komorbidite

**Amaç:** Bu çalışmanın amacı, panik bozukluğu (PB) hastalarında sosyodemografik özellikleri ve eşlik eden Eksen I tanıların sıklığını araştırmaktır.

Yöntem: Çalışmaya, Vakıf Gureba Eğitim Araştırma Hastanesi ve Şişli Etfal Eğitim Araştırma Hastanesi psikiyatri polikliniklerine başvuran ve DSM-IV tanı ölçütlerine göre panik bozukluğu tanısı alan 77 hasta dahil edilmiştir. Eşlik eden psikiyatrik tanılar SCID-I (DSM-IV Eksen I Bozuklukları için Yapılandırılmış Klinik Görüşme) ile değerlendirilmiştir.

**Bulgular:** Hastaların 56'sı (%72.7) kadın, 2l'i (%27.3) erkekti. Ortalama yaş 35.53±12.25 idi. Hastaların %37.7'sinin aile öyküsünde Eksen I psikiyatrik bozukluk tanısı olduğu görüldü. Hastaların %93'ünde panik bozukluğun yanında, psikiyatrik bir eştanı saptandı. En sık saptanan eştanı ise majör depresyon (%47.2) idi.

**Tartışma:** Literatürdeki diğer çalışmalarla kıyaslandığında, kadın hasta sayısının fazla olmakla birlikte, kadın/ erkek oranının daha düşük olduğu belirlenmiştir. Majör depresyon eştanı oranı literatürle uyumlu iken, yaygın anksiyete bozukluğu (YAB) ve sosyal anksiyete bozukluğu (SAB) eştanı oranlarının düşük olduğu saptanmıştır. Agorafobisi bulunan PB hastalarındaki SAB birlikteliği, agorafobisi bulunmayan PB grubuna göre anlamlı derecede daha yüksek bulunmuştur.

**Sonuç:** PB hastalarının yaklaşık yarısında majör depresyon görülürken, agorafobinin eşlik ettiği hastalarda estanı sıklığının, özellikle de SAB sıklığının arttığı saptanmıstır.

Anahtar kelimeler: Panik bozukluğu, agorafobi, komorbidite

# **ABSTRACT**

Sociodemographic characteristics and comorbidity in panic disorder patients

**Aim:** The aim of the present study is to investigate the sociodemographic characteristics and the frequency of comorbid Axis I diagnosis in panic disorder (PD) patients.

**Method:** 77 patients who referrred to the psychiatry outpatient clinic of Vakif Gureba Training and Research Hospital and Şişli Etfal Training and Research Hospital and who were diagnosed with panic disorder according to DSM-IV diagnostic criteria were included in the study. Comorbid psychiatric diagnoses were evaluated by SCID-I (Structured Clinical Interview for DSM-IV Axis I Disorders).

**Results:** Fifty six of the patients (72.7%) were female, and 2I (27.3%) were male. Mean age was 35.53±12.25. Among patients, 37.7% had Axis I psychiatric disorder diagnosis in their family histories. In 93% of the patients, a psychiatric comorbidity was diagnosed along with panic disorder. The most common Axis I comorbidity was major depression (47.2%).

**Discussion:** Although the number of female patients was higher when compared to other studies, female/male ratio was determined to be lower. The rate of major depression was compatible with the literature, while comorbidity rates for generalized anxiety disorder and social anxiety disorder (SAD) were found to be lower than the groups in similar literature. SAD comorbidity rate in PD patients with agoraphobia was found to be significantly higher than the PD group without agoraphobia.

**Conclusion:** Nearly half of the PD patients had major depression, while in patients with comorbid agoraphobia, prevalence of comorbid disorders, particularly of SAD, was shown to increase.

Key words: Panic disorder, agoraphobia, comorbidity

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#### INTRODUCTION

Panic disorder (PD) is a disorder characterized by recurrent panic attacks that occur at unexpected times, and where the patient may exhibit avoidance behavior by experiencing anticipatory anxiety for further attacks. Panic attacks have been described in

the DSM-IV (1) and DSM-IV-TR (2) and coded as PD with or without agoraphobia. Panic disorder with agoraphobia is an anxiety disorder in which there are repeated attacks of intense fear and anxiety, and a fear of being in places where way out might be difficult, or where help may not be available in case of a panic attack or similar symptoms (1). A panic

attack is a discrete period of intense anxiety that occurs unexpectedly and spontaneously, and is associated with numerous somatic and cognitive symptoms. A marked deterioration can be seen in the functioning of the patients, particularly due to the anticipatory anxiety and avoidance behaviors.

In the past years, GAD (generalized anxiety disorder) was considered a chronic anxiety disorder and PB was a form of anxiety in the spectrum of anxiety disorders. Later, findings like the occurrence of panic attacks with sodium lactate infusions, familial predisposition in patients with PD and the recurring development of agoraphobia in these patients who responded to treatment with tricyclic antidepressants indicated that PD was a distinct disease on its own.

PD is a commonly seen psychiatric disorder in the population and its lifelong prevalence rate is known to be 1.5-3%. The mean onset age is 26.6 years and incidence rate in females is 2-3 times higher than in males (3). In some studies, while it was suggested that the disorder was seen more frequently in divorced or separated individuals, the majority of the patients (80%) in Turkey were married(4). Ninety-one percent of PD patients and 84% of the PD patients with agoraphobia has a comorbid psychiatric diagnosis. When the comorbid psychiatric disorders are considered, the association with major depression (50-65%) is the most common (5,6). In two-thirds of the cases where major depression and PD are seen together, PD commences before major depression (7). Also, other anxiety disorders like GAD, social anxiety disorder (SAD) and specific phobia (SP) can be seen more frequently in PD patients compared to the general population. In the studies, the rates of comorbid diagnoses for GAD and SAD were determined to be 71% and 58%, respectively (8,9).

Agoraphobia accompanies in 50-65% of the PD patients (10). Earlier age of onset, lower remission rates and more severe disease symptoms were determined in PD patients with agoraphobia (11). Additionally, comorbid psychiatric diagnoses were determined to be more frequent in PD patients with agoraphobia (8,12). Different results were collected from the studies investigating the comorbid psychiatric conditions in PD

patients with agoraphobia. The comorbid psychiatric disorders in these patients were reported to be GAD (80%), major depression (70%), obsessive-compulsive disorder (OCD) (17%), SP (8%) and SAD (5%) respectively (13). Crino and Andrews reported that SAD (58%) is the most common comorbid diagnosis in PD patients with agoraphobia and this was followed by major depression (49%), OCD (22%), GAD (33%) and dysthymia (14%) (14).

To investigate the other comorbid psychiatric disorders in PD disorders or in PD patients with agoraphobia enable us to understand the underlying psychopathological mechanisms and the relations (15,16). In our study, our main aim was to determine the sociodemographic characteristics and comorbid psychiatric disorders of PD patients presenting to our outpatient clinic.

#### MATERIALS AND METHODS

Seventy-seven patients presented to the psychiatry outpatient clinics of Vakıf Gureba Training and Research Hospital and Şişli Etfal Training and Research Hospital between January-August 2007 and diagnosed with panic disorder according to DSM-IV diagnostic criteria by the clinical interviews and accepted for participation in the study were included in the study. The patients were included in the study with their informed written consent. Inclusion criteria were composed of at the following: participants must be at least 18 years old, literate and have the mental capacity to understand the tests.

The Sociodemographic Data Form and SCID-I (Structured Clinic Interview for DSM-IV Axis I Disorders) were administered to the patients.

**SCID-I:** This is a clinical interview scale developed and structured by the American Psychiatry Association for DSM-IV Axis I Diagnoses in 1994 (17). The Turkish adaptation and reliability studies of SCID-I were conducted by Çorapçıoğlu et al. (18).

## Statistical procedure

In this study, a statistical analysis of the data was

performed by using a SPSS for Windows 11.5 program. Frequency and rate were used for sociodemographic variables. Chi-square and Fisher exact tests were used for the comparison of the rates of accompanying psychiatric disorders in PD patients with and without agoraphobia.

Table 1: Sociodemographic characteristics of the patients

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Sociodemographic Characteristics	N	%	
Gender			
Female	56	72.7	
Male	21	27.3	
Marital Status			
Single	25	32.5	
Married	45	58.4	
Divorced	5	6.5	
Widow	2	2.6	
Profession			
Unemployed	12	15.6	
Housewife	29	37.7	
Official	5	6.5	
Worker	9	11.7	
Self-employed	15	19.5	
Student	2 5	2.6	
Retired	5	6.5	
Income level			
Low	30	39.0	
Intermediate	43	55.8	
High	4	5.2	
Psychological disorder in the family			
Absent	48	62.3	
Present	29	37.7	

Tablo 2: Accompanying psychiatric disorders				
Axis I disorders	N	%		
Major depression	51	47.2		
Bipolar disorder	8	10.4		
Generalized anxiety disorder	30	39.0		
Obsessive-compulsive disorder	12	15.6		
Agoraphobia	55	71.4		
Social anxiety disorder	11	14.3		
Post traumatic stress disorder	3	3.9		
Dysthymia	12	15.6		
Somatoform disorder	17	22.1		

#### RESULTS

In total, 77 patients participated in the study and 56 (72.7%) of them were female, 21 (27.3%) of them were male. Mean age was determined to be 35.5±12.3 years. When the marital status was investigated, the rate of married patients was found to be higher. There was Axis I psychiatric disorder diagnosis in the family histories of 37.7% of the patients. When the professional distribution of the patients was investigated, it was determined that 37.7% of them were housewives and 15.6% of them were unemployed (Table 1).

Fifty-five (71.4%) of the patients had diagnosis of PD with agoraphobia. In our study, the presence of comorbid diagnosis was detected at a rate of 93% in our sample group composed of PD patients. Comorbid psychiatric disorders were as follows, respectively: major depression 47.2%, GAD 39%, dysthymia 15.6%, OCD 15.6%, SAD 14.3%, somatoform disorder 22.1%, bipolar disorder 10.4% and post traumatic stress disorder (PTSD) 3.9% (Table 2).

The majority of PD patients with comorbid psychiatric disorder were PD disorder with agoraphobia. Comorbid psychiatric disorders in PD patients with agoraphobia were determined to the following: major depression in 28 patients (50.9%), GAD in 21 patients (38.2%), SAD in 11 patients (20%), PTSD in 3 patients (5.5%), OCD in 11 patients (20%), Dysthymia in 10 patients (18.2%), somatoform disorder in 11 patients (20%), bipolar disorder in 3 patients (5.4%). Comorbid psychiatric disorders in PD patients without agoraphobia were determined to be the following: major depression in 9 patients (40.9%), GAD in 9 patients (40.9%),

Tablo 3: Comparison of SCID-I Additional diagnoses distribution in PD patients group with agoraphobia and PD patients group

SCID-I Diagnoses		sorder with obia (N=55)	Panic Disorder (N=22)			
	n	(%)	n	(%)	χ2	р
Major depression	28	50.9	9	40.9	0.630	>0.05
Generalized anxiety disorder	21	38.2	9	40.9	0.049	>0.05
Social anxiety disorder*	11	20	0	0		< 0.05
Post traumatic stress disorder	3	5.5	0	0		>0.05
Obsessive-compulsive disorder*	11	20	1	4.5		>0.05
Dysthymia*	10	18.2	2	9.1		>0.05
Somatoform disorder	11	20	6	27.3	0.483	>0.05
Bipolar disorder*	3	9.1	1	4.5		>0.05

 $<sup>\</sup>chi 2 :$  Chi Square Test, \*Fisher's Exact Test were used

OCD in 1 patient (4.5%), dysthymia in 2 patients (9.1%), somatoform disorder in 6 patients (27.3%) and bipolar disorder in 1 patient (4.5%). Comorbid SAD and PTSD diagnoses were not seen in this group. SAD association in PD patients with agoraphobia was found to be significantly higher than in PD patients without agoraphobia (p=0.028) (Table 3).

# **DISCUSSION**

PD is a disorder with an onset in late adolescence and decreasing frequency with age. It is reported that it occurs 2-3 times more in females compared to males (3,19,20). In the Epidemiological Catchment Area Study (ECA) conducted in the United States, the prevalence rate was determined to be 0.7% in females and 0.3% in males (21). In the Turkish Mental Health Profile Study, the prevalence rate within last 12 months was determined to be 0.5% in females and 0.3% in males (22). The rates reported in our study were consistent with those reported in the literature and the rate of female patients (72.7%) was much higher than the rate of male patients (27.3%).

In PD epidemiology, significant socioeconomic and ethnic risk factors were not determined precisely. PD affects all sociodemographic groups. In many studies, a correlation between PD and divorce, separation and loss could be established. Divorced/widowed rate among PD patients was found to be 4% in a study conducted in Turkey and 28% in another study conducted abroad (23,24). In a recent epidemiological study, results indicated that the probability of panic disorder increased in previously married individuals (12). In our study, the rate of divorced and widowed patients was found to be 9.1% and the majority of the patients (58.4%) were married.

Many authors believe that agoraphobia is a changeable characteristic of not only PD but of many disorders. Many of the agoraphobic patients state that they experience unexpected panic attacks, but 10% of these patients do not experience panic attacks (25). Although it is not adequate, available proofs are in favor of classifying the two disorders together (26). There are also some studies suggesting that agoraphobia is not

a different clinical entity, but a more severe form of panic disorder; therefore, the frequency of comorbid diagnosis would be higher and the prognosis would be worse in the presence of agoraphobia (3,27,28). When Noyes et al. compared agoraphobic patients with PD patients; they determined that the age of onset in agoraphobic patients is younger and the response to treatment is lower (29). In the same study, the authors also reported that the severity of the symptoms in the patients with agoraphobia were generally more severe. The likelihood of remission in PD is generally high.

Response to medical treatments for panic attacks accompanying agoraphobia occurs later and requires a stronger treatment (27,30,31). For these reasons, since accompanying agoraphobia will affect the diagnosis and treatment approach, the detection of agoraphobia is especially important.

It is reported that other psychiatric disorders are present in 91% of PD patients and 84% of the patients with agoraphobia (32). Comorbid diagnoses are generally depression and other anxiety disorders. Comorbid diagnosis related to alcohol and substance abuse is relatively rare (33). There are some findings that indicate that alcohol use is higher particularly in male patients with PD (34,35). One study reports that mood disorders in PD were related to agoraphobia, somatoform disorders and substance abuse and that comorbid diagnoses were seen frequently (36).

In our study as in previous studies, findings indicate that the majority of PD patients had at least one comorbid psychiatric diagnosis (30,37). The most common comorbid diagnosis in our study was major depression, consistent with the literature (38,39). Major depression was determined to be 50.9% in PD with agoraphobia and this result was consistent with the literature (8). In PD patients with agoraphobia, comorbid major depression, OCD, dysthymia and SAD diagnoses were found to be higher than PD patients without agoraphobia. But statistically significant difference was found between patients with and without agoraphobia only regarding SAD rates.

Our study has some critical limitations. Factors like the duration of the disease, comorbid general medical conditions, duration and types of treatment, alcohol and/or substance abuse, and gender differences were not taken into consideration in our study, conducted in a clinical population. Comorbidities of Axis I disorders with PD and comorbidities of personality disorders with PD are also detected at higher rates and these affect the course of PD negatively (34). Therefore, non-assessment of Axis II disorders that might accompany in PD is a limitation of our study. Finally, observing only those PD patients who were seeking treatment may have caused the rates of comorbid Axis I disorder diagnoses to be higher; the comorbidity rates in our study do not reflect the comorbidity rates of PD patients who are not seeking treatment.

Despite these limitations, the rates of other diseases accompanying in PD were found to be higher in our study. Particularly, the frequency of comorbid psychiatric diagnosis accompanying to the presence of agoraphobia was determined to be much higher. In general, PD is a disorder with clinical course

of long-term attacks and frequent recurrences and, usually, complete and continuous recovery from symptoms cannot be observed. The other comorbid psychiatric disorders are seen frequently and major depressive disorder develops in approximately half of the patients. Our study emphasizes that the other psychiatric disorders, including depression and SAD, should be kept in mind particularly for PD patients with agoraphobia. Comorbid Axis I or Axis II diagnoses irrespective of their severity, the types and numbers affect the response to the treatment negatively in PD patients. It is advisable to consider comorbid diagnoses for an effective treatment (6,40). Determination of a comorbid psychiatric disorder diagnoses with PD is crucial for providing an appropriate treatment approach and should be considered carefully, since it will affect the course of the disease. Further prospective studies, including more cases, are required to be conducted regarding this condition.

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