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Prevalence of Anxiety Disorder Comorbidities in Female Outpatients with Substance Use Disorder in a Referral Public Psychiatric Hospital in Tehran, Iran

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Abstract

Background: Nowadays, the attention to the combination of Substance Use Disorders (SUD) and anxiety disorders in women is increasing; therefore, the aim of this study was to investigate the prevalence of anxiety disorders in women substance users and epidemiological features of this population.

Methods: In a cross-sectional study, 48 female outpatients with SUD referred to the Iran psychiatric hospital substance use clinic with a range of 18 to 65 years, were involved in the study. All participants referred to the substance use clinic of Iran psychiatric center to follow up on the comorbidities and psychiatric disorders, were involved in the study. The Structured Clinical Interview for DSM-5 (SCID) was used to anxiety disorders and SUD diagnoses. The SCID is a semi-structured interview guide for making the major DSM-5 diagnoses. It is administered by a clinician who is familiar with the DSM-5 classification and diagnostic criteria. Finally, gathered data were analyzed by SPSS-22.

Results: Totally, 48 patients enrolled to this study. The mean age of patients was 34.2 ± 9.4 . Crystal (60.4%) and alcohol (50%) were the most commonly used substances. Of the 48 substance users, 47.9% had at least one type of anxiety disorders. The most common anxiety disorders in substance users were generalized anxiety disorder (37.5%), social anxiety disorder (18.8%), and agoraphobia and panic disorder (12.5%). A statistically significant correlation was found between agoraphobia and opium (p=0.04), generalized anxiety disorders and benzodiazepines (p=0.02).

Conclusion: In the present study, it was shown that anxiety disorders co-occur with SUD at a high rate. Generalized anxiety disorders and social anxiety disorder were the two most prevalent conditions among substance users. Analysis showed a statistically significant correlation between agoraphobia and opium, general anxiety disorders and benzodiazepines.

Keywords: Anxiety disorder, Comorbidity, Substance use

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Introduction

Anxiety Disorders (ADs) are a cluster of mental disorders characterized by significant and uncontrollable feelings of anxiety and fear which may cause physical and cognitive symptoms (1,2). According to the population-based studies, up to 33.7% of people experience an anxiety disorder during their lifetime, but its overall prevalence decreases in elders (3,4). In Iran, anxiety disorders among children and adolescents are estimated with the prevalence rates ranging from 6.8% in Saravan to 85% in Bandar Abbas. In another study in Iran, the 12-month prevalence of anxiety disorders was 15.6%, also the prevalence was 12% in males and 19.4% in females (5,6). In a multinational evaluation, the one-year and lifetime prevalence of anxiety disorders was estimated at about 10.6% and 16.6%, respectively. The lowest prevalence was observed in East Asia at 2.8% and the highest in North Africa and the Middle East at 7.7%. Women with a prevalence of 30.5% over a lifetime are more likely to be interfaced with anxiety disorders than men, (with the ratio of 2 to1) (7-9).

Substance use is one of the most important health social and political problems all over the world and the highest prevalence is observed among young people (10,11). The prevalence of substance use in Iran is in a range between 2.8 to 15.4% (12,13). In several studies, 46% of people mentioned opium and 23.5% cannabis as the first substance and the most common substance use in the women population was opium (81%). The main causes of substance use onset were family history of dependency (77%), easy access to substances (64%), and depression and hopelessness (56%) (14-18). Associations between ADs and Substance Use Disorders (SUDs) may also differ depending on the type of anxiety and also lead to more symptom severity and functional impairment (19-21). Prospective studies have found greater support to risk for development of a SUD among those with ADs than vice versa. In a 10-year follow-up comorbidity survey, individuals with an AD were significantly more likely to develop SUD (22-26). Anxiety disorders co-occur with SUDs at a high rate in both the general population and in treatment-seeking samples. The co-occurrence of these disorders is associated with greater symptom severity, higher levels of disability, and a poorer course of illness relative to either disorder alone (27,28). Unfortunately, in Iran, females with SUDs are highly stigmatized. Women are considered the core of family, and in the context of substance use, they will be exposed to discrimination and exclusion. Most Iranian women who use substances reside in an inappropriate and unhealthy home situation (29,30). Due to the lack of similar studies regarding the prevalence of anxiety disorders comorbidities in female with SUDs, the present study aimed to evaluate the prevalence of anxiety disorders comorbidities in female outpatients with SUD of a referral public psychiatric hospital.

Materials and Methods Study design

In a cross-sectional study, we investigated 48 female outpatients with SUD referred to the Iran psychiatric hospital, with a range of 18 to 65 years, based on the available facilities and time limitation, from April 2020 to March 2021. All participants were substance users, referred to the substance use clinic of Iran psychiatric center to follow up on the comorbidities and psychiatric disorders, and according to inclusion and exclusion criteria, the eligible patients were involved in the study. The Structured Clinical Interview for DSM-5 (SCID) was used for anxiety disorders and SUD diagnoses.

Inclusion and exclusion criteria

Inclusion criteria were as follows, signing informed consent, lack of psychotic signs and symptoms due to acute major periods (major depression and mania). Patients who withdrew from the clinical interview in the middle of the project, were excluded.

Data collection

Written informed consent was taken from the patients. Interviews, which were performed by a psychiatric resident, took between 1-2 hours, depending on the patients' complexity and their ability to describe current episodes and previous symptoms. A standardized questionnaire was utilized to collect socio-demographic data including age, level of education, a brief history of medical illnesses and psychiatric disorders (including previous

hospitalizations), use of certain medications, smoking, other substances, alcohol, and duration of use were recorded.

The SCID is a sem-istructured interview guide for making the major DSM-5 diagnoses. It is administered by a clinician or a trained mental health professional who is familiar with the DSM-5 classification and diagnostic criteria, to determine DSM-5 axis I disorders (31,32). Current psychopathology was assessed by interviewers using an adapted version of the research version of the SCID (31). The following disorders were assessed: SUD, panic disorder, agoraphobia, social anxiety disorder, and generalized anxiety disorder. We utilized the Persian translation of the SCID-5, which was administered by Mohammadkhani. SCID psychometric properties indicated the range for test-retest reliability (0.60-0.79), Kappa reliability (0.57-0.72), and validity (0.63-0.83) (33). The SCID has several advantages, for instance, probing and clarifying the questions and their answers cannot be distorted by the respondents' reading level, which allows for assessing a wide area of psychopathology categorically or dimensionally and accurately capturing the multifactorial nature of psychopathology (34).

Data analysis

Data were analyzed by IBM SPSS STATISTICS 22 (IBM Inc, New York, USA). Data are presented as numbers and percentages and compared between groups by chi-square test. p values less than 0.05

were assumed as statistically significant.

Results

In this study, 48 female outpatients with SUD were involved. The mean age of patients was 34.2±9.4 and about 81.3% of patients were urban residents. The minimum age of consumption onset was 18 years and the maximum age was 32 years with a mean age of 19.08±5.1. Of the total patients, 33.3% were married and the others were single or divorced and about 29.3% of the patients had a history of legal conflicts. 14.6% of the patients had a bachelor or higher degrees and 72.9% of the patients were housewives and had no monthly income. 47.9% had a history of hospitalization due to psychiatric or SUD and about 27.1% had a history of outpatient treatment for substance use. The most common anxiety disorder in substanceusing patients was generalized anxiety disorder (37.5%), social anxiety disorder (18.8%), agoraphobia, and panic had the lowest prevalence (12.5%). The most common substances used were cigarettes (93.7%), crystals (60.4%) and alcohol (50%) The methods of substance use are illustrated in figure 1. Of the 48 substance users, 23 (47.9%) had at least one type of anxiety disorders. The analysis showed that opium use was significantly associated with agoraphobia (p=0.02), and general anxiety disorder was significantly associated with benzodiazepine use (p=0.04) (Table 1).



Figure 1. Method of substance use.

		Panic Disorder	Social Anxiety Disorder	Agoraphobia	General Anxiety Disorder
Crystal	Yes	2(6.9)	4(13.8)	2(6.9)	9(31)
(%)	No	4(21.1)	5(26.3)	4(21.1)	9(47.4)
N⁵=29	Pª	0.147	0.277	0.147	0.253
Cannabis	Yes	2(9.5)	2(9.5)	2(9.5)	7(33.3)
(%)	No	4(14.8)	7(25.9)	4(14.8)	11(40.7)
N=21	P	0.414	0.149	0.414	0.599
Opium	Yes	1(4.5)	3(13.6)	3(13.6)	9(40.9)
(%)	No	5(19.2)	6(23.1)	4(11.5)	9(34.6)
N=22	P	0.125	0.404	0.04	0.654
Heroin	Yes	2(12.5)	3(18.8)	2(12.5)	8(50)
(%)	No	4(12.5)	6(18.8)	4(12.5)	10(31.2)
N=16	P	1	1	1	0.206
Methadone	Yes	1(5.3)	3(15.8)	1(5.3)	7(36.8)
(%)	No	5(17.2)	6(20.7)	5(17.2)	11(37.9)
N=19	P*	0.220	0.671	0.220	0.939
Tramadol	Yes	0	1(7.7)	0	4(30.8)
(%)	No	6(17.1)	8(22.9)	6(17.1)	14(40)
N=13	P	0.111	0.232	0.111	0.557
LSD⁰	Yes	0	0	0	1(25)
(%)	No	6(13.6)	9(20.5)	6(13.6)	17(38.6)
N=4	P	0.430	0.316	0.430	0.590
Benzodiazepine	Yes	1(7.1)	1(7.1)	1(7.1)	8(32)
(%)	No	5(21.7)	5(21.7)	5(21.7)	10(43.5)
N=25	P	0.155	0.387	0.155	0.02

Table 1. Relation between substance use and anxiety disorders

^ap.value

⁵Number

^cLysergic acid diethylamide

Discussion

Interest in surveying the co-occurrence of anxiety disorders and SUDs has grown tremendously in recent years. Some evaluations have investigated the needs, anxiety, and consequences of psychiatric patients with comorbid substance use and patients who do not utilize substances, and it was revealed that psychiatric patients with comorbidity of substance use reported more unsatisfied needs, inadequate nutrition, inappropriate housing, and anxiety (35,36). Adequate research has not been conducted on the comorbidities of anxiety disorders and substance use in female population. Within this context, this study was one of the first studies carried out in our country about the association between different types of anxiety disorders and SUDs in the females (28).

This study showed that the majority of consumers were women of the lower half of society's living standards. Most of them were unemployed, with low education and with a low-income level, similar to our study, in another study, 48.1% of the patients were from those lower than the middle class, all of which seem to predispose the possibility of substance use (37). The most common anxiety disorders in substance users were generalized anxiety disorders and social anxiety disorder. Some evaluations have reported that generalized anxiety disorder occurs after the onset of dependency and that almost all anxiety disorders are positively associated with substance use. A survey conducted by Wittchen about anxiety disorders with comorbid SUDs, showed that SUDs are one of the most common comorbid psychiatric disorders among individuals with a generalized anxiety disorder. Recent epidemiological studies noted that GAD was the anxiety disorder most often associated with using alcohol or substances self-medicate symptoms; therefore, to the mentioned reports were similar to our assessment (5,6,38-40). Fernandez et al showed that anxiety disorders were associated with patients taking heroin and benzodiazepines. In another survey conducted by Bakken et al in 2005, it was found that the prevalence of social anxiety disorder was higher in multiple substance users (51%). Also, in a study published in the United States, a history of past substance use was particularly linked to an increased risk of social anxiety disorder and agoraphobia (41-43). Our investigation showed that among females who use substances, 47.9% had at least one type of anxiety disorders, but in the general population, the prevalence of anxiety disorder is much lower. Several studies in general populatin reported that about 7% of the adolescents had social anxiety disorder (44). The 12-month prevalence of anxiety disorders was 15.6%. The prevalence was 12% in males and 19.4% in females. The most prevalent anxiety disorders were generalized anxiety disorder (5.2%) and social phobia (3.2%) (45). In an other survey, pooled 1-year and lifetime prevalence rates for total anxiety disorders were 10.6% and 16.6%. Women had generally higher prevalence rates across all anxiety disorder categories (46). An investigation showed that nicotine-dependent subjects (70.4% of the sample) had significantly more anxiety disorders compared to the nondependent ones. It seems that anxiety disorder has a strong role in the initiation of smoking; therefore, higher anxiety rates were reported in the group of smokers (47). This difference in prevalence beween user and non-users population, could simply exist since anxiety disorders tend to have an onset in early adolescence, prior to the average onset of SUDs, or could be because social phobia specifically increases the risk for SUDs. Perhaps experiencing anxiety in adolescence makes a young person more prone to peer pressure, due to anxiety about fitting in, which would be a risk factor for developing SUDs. Also some people may use substances occasionally to reduce anxiety symptoms, however, alcohol and substance use can be associated with a reduction in the effectiveness of drug therapies.

Conclusion

In sum, the present study showed that anxiety disorders co-occur with SUDs at a high rate. Generalized anxiety disorders and social anxiety disorder were the two most prevalent conditions among substance users. Analysis showed a statistically significant correlation between agoraphobia and opium, general anxiety disorders, and benzodiazepines.

Limitation

There were several limitations: the first one was was to contact and interview the patient due to covid-19 isolation. Second, this study was based on retrospective reports, and prospective studies may provide more reliable estimates. This study failed to show the time sequence, for example, social phobia and agoraphobia almost always occur before the SUD. Thus, studies that examine the temporal relationship between anxiety and SUDs are required.

Suggestion

According to the results, we suggest evaluating the other psychiatric comorbidities in substance users. It seems to be necessary to survey anxiety disorders in larger sample size and different geographical areas. It is also needed to design studies to evaluate the effectiveness of medication and psychotherapy interventions for the treatment of comorbid anxiety disorders in women with substance dependency.

Ethical issues

In this study, no intervention was performed on patients. Informed consent was taken from the patients. If a person refused to participate in the study, she would not be deprived of any medical services. All personal information remained confidential.

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this study.

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