The association of anxiety and depressive disorders with substance use disorders: frequency and relationship with substance use severity

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Background
Substance use disorders (SUDs) are a common and potentially serious form of mental illness. Common associated mental illnesses include depressive and anxiety disorders.
Objectives
To examine the frequency of comorbidity and the degree of severity of depressive and anxiety disorders with SUDs in a sample of upper Egyptian patients.
Patients and methods
A total of 103 patients with SUDs were recruited. There were 95 males and eight females, with an age of 27.5±6.2, and two-thirds (67%) of them came from urban areas. They were subjected to complete substance use history, urine analysis screen for substances of abuse, Hamilton rating scales for anxiety and depression, and the Addiction Severity Index (ASI).
Results
Overall, 41 (39.8%) patients began using substances before the age of 18 years, and 79 (76.7%) patients used more than one substance. Moreover, 74 (71.9%) patients had moderate or severe anxiety, whereas 78 (75.7%) patients had moderate or severe depression. Anxiety scores were positively and significantly correlated with three of the seven domains of ASI in addition to the duration of substance use, whereas depression scores were positively and significantly correlated with six of the ASI domains. Patients using polysubstances scored significantly higher than those using a single substance on anxiety and depressive scores.
Conclusions
Anxiety and depressive disorders are frequently diagnosed in patients with SUDs. Increased severity of both types of disorders is associated with increased parameters of substance use severity. Using more than one substance increases the likelihood of having more severe anxiety and depressive illness.

Keywords:
age, anxiety, ASI, depression, drug use, No. of drugs, sex

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Introduction

Addiction is a chronic, recurrent disease, with characteristic absolute advancement of drug-seeking behavior. The craving induced by substances of addiction dominates other behavior; the adaptation of a person to chronic intake of substances involves development of changes that are adaptive, sensitization, or tolerance (Vetulani, 2001).

Substance abuse in Egypt is a serious problem (Viney, 2012). A 'national survey' in 2007 reported that six million (8.5%) Egyptians (the majority of whom were between 15 and 25 years of age) were using drugs (Nasreldin *et al.*, 2012). It has high prevalence among the young, varies according to the specific region of the country, more reported by boys than girls, and usually involves cannabis (Abou Eleinen *et al.*, 2008).

In Egypt, the most commonly used drugs in the 1980s were cannabis, opium, solid and liquid hypno-sedatives, heroin, and lastly cocaine, in descending order of frequency (Okasha, 2004).

The United Nations Office on Drugs and Crime (2012) issued a global report that estimated 6–8% of Egypt's population aged from 15 to 64 years used cannabis. Furthermore, the prevalence of smoking, illegal drugs, and over-the-counter drugs is increasing, especially among youth (Hamdi *et al.*, 2013). In addition, the use of the water pipe (or shisha, as it is known in

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Egypt) has been increasing in cities and among new groups such as women, young people, and those from high socioeconomic levels (Labib *et al.*, 2007).

The combination of a substance use disorder (SUD) and other psychiatric disorders is common. Substance misuse can probably activate new psychiatric disorders and worsen currently present ones (Johnson, 1997). In addition, psychiatric morbidity occurs with psychoactive substance use among adolescents (Kandel *et al.*, 1999).

Commonly reported conditions include depression, suicidal ideation, attention-deficit/hyperactivity disorder, conduct disorder, anxiety, schizophrenia, and other psychoses (Hunt *et al.*, 2002). Such comorbidity has been associated with increased psychiatric admission, violence (Scotte *et al.*, 1998), suicidal behavior (Appleby *et al.*, 1999), and poor treatment outcome in both substance misuse and psychiatric populations (Carey *et al.*, 1991).

The relationship between anxiety disorders and substance-related disorders is complex. The interaction is not unidirectional, but variable and multifaceted. Anxiety symptoms often emerge during the course of chronic intoxication and withdrawal, and anxiety disorders may be a risk factor for the development of SUDs. Anxiety disorders change the clinical picture and treatment outcome for SUDs. Furthermore, SUDs modify the presentation and treatment outcome for anxiety disorders (Brady, 2012).Comorbid major depressive disorder (MDD) among persons with a SUD is associated with negative outcomes, including worse quality of life (Saatcioglu *et al.*, 2008), increased chance of disability (Olfson *et al.*, 1997), and higher suicide risk (Glasner-Edwards *et al.*, 2008). At the initiation of treatment for SUD, patients with comorbid depression have more severe impairments in multiple areas, including social, medical, and legal problems. Additionally, MDD is the most common comorbid Axis I diagnosis for individuals with SUD (Leventhal *et al.*, 2006).

Patients and methods

Setting of the study

Minia Hospital of Mental Health and Addiction Treatment is the official psychiatric hospital in Minia governorate (>4 million people). It is located at El Minia El Gadida City, which is at north-east of the Nile. It provides services for psychiatric patients and patients of substance abuse. Its inpatient capacity is 50 beds (40 for male patients and 10 for female patients). It provides an outpatient clinic service on daily basis and a hot line clinic for substance abusers on twice weekly basis (individual and group) and regular follow-up by phone calls with psychologists.

Patients of the study and size of the sample

All clients attending outpatient addiction clinic of Minia Psychiatric Hospital for 6-month duration (between 1st of December 2014 and 31st of May 2015) were subjected to screen for effect of substance abuse on the lifestyle of patients and evaluation of severity of addiction and its effect on mood. The approval of the Ethical Scientific Commute was obtained before the start of the research. Ethical Committee of Minia Faculty of Medicine approved this study.

Patients aged 18–60 years, whether males or females, with a positive history of SUD were included in the study, provided that they gave oral and written consent to participate in the procedure of the study.

However, patients younger than 18 years or older than 60 years, those with chronic illness, those with acute intoxication or withdrawal symptoms or substance-induced psychosis, and those who refused involving in the study were excluded from the study.

The final population sample of the present study included 103 patients of both sexes (95 males and eight females) who had SUD. They were diagnosed according to the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems, Diagnostic Criteria for Research (ICD-10) (World Health Organization, 1995).

Tools of the study

Urine analysis screen for substances of abuse

This was done in the Minia Hospital of Mental Health and Addiction Treatment laboratory by an experienced technician using two types of urine kits: the first is specific only for tramadol (DiaSpot Rapid One-step Test Device), and the second (ACON Urinalysis Reagent Strip) test for six different substances, such as THC (cannabis), BAR (barbiturate), COC (cocaine), AMP (amphetamine), MOP (morphine), and BZO (benzodiazepines).

Addiction Severity Index (McLellan et al., 1980)

The Addiction Severity Index (ASI) is a semistructured interview designed to provide a multidimensional assessment of problems presented by patients with SUDs. Information is collected by the index on

seven functional areas mostly affected by substance use: medical status, employment and support, drug use, alcohol use, legal status, family and social status, and finally, psychiatric status.

Each section includes questions about the duration, frequency, and severity of problems over the whole patient's life and in the past 30 days. Questions include the patient's subjective assessment of the problems as well as objective indicators of problem severity. At the end of the assessment of each functional area, patients are asked to rate how troubled or annoyed they have been by these problems over the past 30 days and the degree to which they feel they need treatment. Moreover, it rated any current treatment they may be receiving for this problem area. Such ratings are made on a 0–4 scale. For each functional area, the interviewer also makes severity ratings that reflect the magnitude of the interviewer's conviction that patient needs additional treatment, on a scale from 0 to 9 (McLellan *et al.*, 1980).

The ASI has been extensively studied regarding joint reliability, test–retest reliability, and internal consistency of composite scores, with generally excellent results (McLellan *et al.*, 1985). Hodgings *et al.* (1992) demonstrated average joint reliability scores of 0.89.

Hamilton Depression Rating Scale (Hamilton, 1960)

The Hamilton depression rating scale is a widely used semistructured interview that is used for assessing the presence and severity of depressive symptoms (Hamilton, 1960).

The original version contained 21 items, assessing depressive symptoms, including depressed mood, guilt, psychomotor retardation, insomnia, weight loss, somatic symptoms, and suicide. The first 17 items have five possible descriptors, which increase in severity and are scored on either a 0–4 scale. The other four items were included in the original Hamilton depression rating scale to assess the depressive disorder subtype (Bagby *et al.*, 2004).

Hamilton anxiety rating scale (Hamilton, 1959)

The Hamilton anxiety rating scale is a widely used 14-item clinician-administered rating tool used to estimate the severity of anxiety symptoms among individuals previously diagnosed with anxiety disorders (McDowell, 2006).

The 14 items represent 13 categories of anxiety-related symptoms, including anxious mood, fear, tension, insomnia, intellectual/cognitive symptoms, depressed mood, general somatic, cardiovascular, respiratory, gastrointestinal symptoms, and genitourinary, with one item for the rater's assessment of behavioral symptoms. The Hamilton anxiety rating scale contains two subscales – psychiatric anxiety (distress of psychological nature) as well as somatic anxiety (physical symptoms of distress) (Hamilton, 1959).

Retrograde longitudinal course of substance use disorder

The history of addiction is taken from the each client and includes the following:

(1) Onset of addiction.
(2) Causes of substance abuse.
(3) Decision of abstinence.
(4) Types of different substance.
(5) Doses of substances that were reached by patients.
(6) Causes of shifting from substance to another.
(7) Personal experience with each substance.
(8) Times of relapse.
(9) Duration of abstinence.

Data analysis and statistical methods

The data collected were recorded on a separate file for each patient and were given a code. Data analysis was done by the Statistical Package of Social Sciences (SPSS Inc., Chicago, USA), version 15.0 for Windows.

The data were summarized using the mean and SD for quantitative data and percent for qualitative data. Descriptive statistics of the study participants were conducted. Fisher exact test was used for qualitative data between each two groups like polysubstance and one-substance groups, and male and female groups. Differences between studied groups were considered statistically at P value less than 0.05.

Results

Table 1 shows that the total sample of the study included 103 patients, comprising 95 (92.2%) males and eight (7.8%) females. The mean age was 27.5±6.2 years. A total of 69 (67%) patients came from urban areas, 51 (49.5%) patients of the sample were married, whereas the rest were single or divorced.

Table 2 shows that more than half of the sample (53.4%) started taking drugs at an age ranging from 18 to 30 years, whereas 41 (39.85%) patients started taking drugs at age less than or equal to 18 years. Moreover, 24 (23.3%) patients used to take one substance, whereas polysubstance group included 79 (76.7%) patients.

Table 1 Sociodemographic data of the study sample

Demographic data	Descriptive statistics (*N*=103) [*n* (%)]
Age	
Range	18–45
Mean±SD	27.5±6.2
Sex	
Male	95 (92.2)
Female	8 (7.8)
Residence	
Urban	69 (67)
Rural	34 (33)
Marital state	
Single	49 (47.6)
Married	51 (49.5)
Divorced	3 (2.9)
Educational state	
Illiterate	10 (9.7)
Basic education system	81 (78.6)
Higher education system	12 (11.7)
Occupational	
Unemployed	10 (9.7)
Manual worker	69 (67)
Clerk	16 (15.5)
Student	4 (3.9)
Business man	4 (3.9)

Table 3 Frequency and severity of anxiety and depressive disorders in the sample

Hamilton rating scale	Descriptive statistics (*N*=103)	
	n (%)	Range (mean±SD)
Total scoring anxiety		
No	4 (3.9)	0–40
Mild anxiety	25 (24.3)	18±8.2
Moderate anxiety	45 (43.7)	
Severe anxiety	29 (28.2)	
Total scoring depression		
No depression	6 (5.8)	2–31
Mild depression	19 (18.4)	17.3±5.9
Moderate depression	34 (33.0)	
Severe and very severe depression	44 (42.7)	

Table 3 shows that moderate anxiety was present in 43.7% of the sample, followed by severe anxiety (28.2%), mild anxiety (24.3%), and lastly, no anxiety (3.9%). On the contrary, frequency of depression in the sample was as follows: severe and very severe depression (42.7%) followed by moderate depression (33%), mild depression (18.4%) and then no depression (5.8%).

Table 4 shows the correlation was positive between scoring of Hamilton anxiety rating scale and all subscales of ASI. The correlation was statistically significant for ASI psychiatric symptoms subscale ($P<0.001$), social subscale ($P=0.007$), and drug subscale ($P=0.012$). It was also statistically significant concerning duration of substance use ($P=0.026$).

Table 2 Addiction characteristics of the study sample

Addiction characteristics	Descriptive statistics (*N*=103) [*n* (%)]
Duration (years)	
1–5	45 (43.7)
6–10	41 (39.8)
>10	17 (16.5)
Age of onset (years)	
≤18	41 (39.8)
>18–<30	55 (53.4)
≥30	7 (6.8)
Types of addiction in past	
Unisubstance	24 (23.3)
Polysubstance	79 (76.7)

Table 4 Correlations between anxiety scoring and severity and some characteristics of addiction in the study sample

ASI scale	Total scoring anxiety	
	R	*P* value
Scoring medically	0.136	0.169
Scoring employment	0.013	0.899
Scoring legal	0.177	0.074
Scoring alcohol	0.100	0.317
Scoring drugs	0.248	0.012*
Family social scoring	0.264	0.007*
Scoring psychiatric symptoms	0.481	<0.001*
Age of onset	–0.032	0.752
Duration of substance use	0.219	0.026*

ASI, Addiction Severity Index. Nonparametric Spearman's rho correlation. *Significant correlation at *P* value less than 0.05.

In Table 5, there was a positive correlation between scoring of Hamilton rating scale of depression and all subscales of ASI. However, it was not statistically significant for ASI alcohol subscale, age of onset, or duration of intake of substance.

Table 6 shows that the mean value of one-substance group was 13.3±8.1 regarding scoring of Hamilton rating scale of anxiety, whereas the mean value of polysubstance group was 19.5±7.7. The comparison was highly statistically significant ($P=0.001$). Regarding Hamilton rating scale of depression, the mean value of one-substance group was 15.2±5.9, whereas the mean value of polysubstance group was 17.9±5.8, and the comparison was statistically significant ($P=0.047$).

Discussion

The current study was conducted in Minia Hospital of Mental Health and Addiction Treatment, which it is

Table 5 Correlations between depression scoring and severity and some characteristics of addiction in the study sample

ASI scale	Total scoring depression	
	R	*P* value
Scoring medically	0.271	0.006*
Scoring employment	0.252	0.010*
Scoring legal	0.307	0.002*
Scoring alcohol	0.013	0.893
Scoring drugs	0.307	0.002*
Family social scoring	0.380	<0.001*
Scoring psychiatric symptoms	0.605	<0.001*
Age of onset	0.003	0.979
Duration of substance use	0.137	0.167

ASI, Addiction Severity Index. Nonparametric Spearman's rho correlation. *Significant correlation at *P* value less than 0.05.

Table 6 Comparison between unisubstance and polysubstance use patients regarding the severity of associated anxiety and depressive disorders

Hamilton rating scale	Unisubstance (*N*=24) [*n* (%)]	Polysubstance (*N*=79) [*n* (%)]	*P* value
Total scoring anxiety			
No	2 (8.3)	2 (2.5)	0.024*
Mild anxiety	9 (37.5)	16 (20.3)	
Moderate anxiety	11 (45.8)	34 (43)	
Severe anxiety	2 (8.3)	27 (34.2)	
Total scoring anxiety			
Range	0–25	0–40	0.001*
Mean±SD	13.3±8.1	19.5±7.7	
Total scoring depression			
No depression	2 (8.3)	4 (5.1)	0.139
Mild depression	8 (33.3)	11 (13.9)	
Moderate depression	6 (25)	28 (35.4)	
Severe and very severe depression	8 (33.3)	36 (45.6)	
Total score depression			
Range	4–26	2–31	0.047*
Mean±SD	15.2±5.9	17.9±5.8	

Independent sample *t* test for parametric quantitative data between the two groups. Fisher exact test for qualitative data between the two groups. *Significant difference at *P* value less than 0.05.

the sole official psychiatric hospital in Minia Governorate and provides in-patient and out-patient treatment for addiction. Previous studies directed at substance abuse in Egypt were carried out in the Ain Shams Institute of Psychiatry in Cairo (Khalil *et al.*, 2008), whereas Loffredo *et al.* (2015) carried out their study in the streets of two largest cities in Egypt, Cairo and Alexandria. Mikhail *et al.* (2001) carried out their study from the Social Defence Club in Assiut and from psychiatric and addiction unit of Assiut University Hospital. El-Sawy *et al.* (2010) collected their sample from patients attending outpatient clinic in Neuropsychiatry Department in Tanta University Hospital. This difference in the setting with the current study led to some differences in the study results.

The total number of the study sample was 103 patients. This was in comparison with Metwally (1990), who studied 50 substance abusers (attendants of addiction centers in Cairo and Giza). Our sample was relatively less than Kamel *et al.* (1995), who studied files of all inpatients and outpatients attending the substance abuse unit of the Institute of Psychiatry Ain Shams University, where the total number was 179 patients. Abd El-Azim (2001) studied substance abuse among 154 substance abusers. However, El-Sawy *et al.* (2010) studied 457 addicts.

In the current study, we used ASI to detect drug/alcohol problems. This tool was previously used by Khalil *et al.* (2008) and Hamdi *et al.* (2013) to detect drug and alcohol problems.

In addition, the current study used Hamilton rating scales for depression and anxiety to detect comorbidity. El-Shafhy (1997) and El-Askary (2002) also used Hamilton rating scale for anxiety to detect comorbid anxiety between addicts. Ibrahim (2005) used Hamilton rating scale for depression to detect comorbid depression, whereas Subramaniam *et al.* (2009) used Beck Depression Inventory to detect MDD between substance abuser.

We also used addiction intensity scale to detect the severity of addiction, whereas Mikhail *et al.* (2001) used drug abuse questionnaire, which is a 20-item questionnaire that measures the abuse of drugs.

The total sample included 103 patients, with the mean age of 27.5±6.2 years. Males represented the majority of our cases (*n*=95; 92.2%), whereas females represented only eight (7.8%) patients. This may be explained on cultural basis, where males in our culture have earlier work career and hence, source of money to buy substances of abuse, in addition to more freedom and tolerance of behavior offered to males. These results were close to those obtained by El-Awady *et al.* (2017) who found that the incidence of substance use was higher in males (*n*=92; 92%) than in female (*n*=8; 8%) patients, but the mean age was 18.24±1.12 years, because they were adolescents.

These findings were nearly similar to those mentioned in a study by Khalil *et al.* (2008), who reported a 98% prevalence of males in their sample of 268 patients, with the mean age of 29 years. In another study by

Mohamed *et al.* (2013) on 120 patients with substance-related disorders, 91.7% of the sample was males and 8.3% were females, with the mean age of 28.52±6.73. Hatata (2004) performed a study on a sample of 76 patients, where 70 (92.1%) patients were males and six (7.9%) patients were females.

In our study, 51 (49.5%) patients were married, 47.6% were single, and the rest were divorced. These findings were close to the results of the study reported by Okasha and Raafat (1988), where among 100 substance abusers, 45 were single, 41 married, and five patients were divorced. However, these findings were inconsistent with the results reported in a study by Abd El-Azim (2001) who found that polygamy was significantly higher among substance abuser, 74% of abusers were never married, and 8.4% of the abusers were divorced.

More than half of the sample (53.4%) started taking drugs at age ranging from 18 to 30 years, whereas 41 (39.85%) patients started taking drugs at the age of 18 years, but only 6.8% started to take drugs at the age above 30 years. This result was in agreement with the results by Abd El-Azim (2001) who stated that the progression of age decreased markedly the liability to take substance. In addition, they found that 46.8% of patients abuse cannabis and alcohol around the age of 15–17 years. This showed that this is the age of trying and peer pressure.

The prevalence of anxiety in our sample was as follows: moderate anxiety (43.7%) followed by severe anxiety (28.2%), mild anxiety (24.3%), and the rest had no anxiety. These results are close to a number of epidemiologic studies conducted over the past three decades, consistently indicating that anxiety disorders and SUDs co-occur more commonly than would be expected by chance alone (Regier *et al.*, 1990; Kessler *et al.*, 1994; Kessler *et al.*, 1997).

In addition, these results are similar to extensive analyses from an epidemiological survey which was focused on comorbidity, the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). The results of these studies show that anxiety disorders were significantly related to both alcohol and drug use disorders. The pattern of results also shows that anxiety disorders were more strongly related to substance dependence (odds ratio=3.0–6.0). Generalized anxiety disorder had the highest associations with SUDs (odds ratio=9.5) (Compton *et al.*, 2007).

Moreover, the results are nearly similar to the study of Metwally (1990) who found that 60% of a sample of 50 substance abusers had anxiety symptoms and to another study by Abd El-Azim (2001) who found that anxiety disorders were the most common diagnoses among his sample. Primary pathways to comorbidity have been suggested for such comorbidity (Hasin *et al.*, 2007). These pathways include the following: (a) a self-medication pathway wherein an anxiety disorder leads to a SUD, (b) a substance-induced anxiety disorder pathway, and (c) a third variable pathway (e.g. genetics or anxiety sensitivity).

On the contrary, the frequency of depression in the current study was as follows: many of the patients had severe and very severe depression (42.7%) followed by moderate depression (33%), mild depression (18.4%) and then no depression (5.8%). The mean±SD of Hamilton rating scale of depression for all patients was 17.3±5.9.

These results are nearly similar to those obtained from a multicenter study on 6355 alcohol-dependent and drug-dependent patients from 41 sites, which indicated that 44% of these individuals also had a history of major depression (Miller *et al.*, 1996). A similar study of more than 4000 patients revealed strong associations of both alcohol and drug use disorders with depression (Mezzich *et al.*, 1990).

The results are nearly similar to those obtained from another study by Fahmy (1989) using the Beck Depression Inventory self-administered to users and controls to determine the depth of depression in both groups and to allow comparison between the two groups. It was revealed that the mean score of users was 20.29±8.63, which classified them in the category of moderate depression. However, the mean score of controls was 8.26±7.2, which signified that most controls either had no depression or only mild depression. In addition, Metwally (1990) found that among 50 substance abusers, 8% had major depression and 72% had depressive symptoms. This explains the strong relationship between depression and SUD.

Our study shows positive correlations between scoring of Hamilton anxiety rating scale and all subscales of ASI. The correlation was highly statistically significant for ASI psychiatric symptoms subscale, family subscale, social subscale, and drug subscale. However, the correlation was not statistically significant for medical, employment, legal, and alcohol subscales. Moreover, there was a positive correlation between

the score of Hamilton rating scale of anxiety and addiction intensity scoring, which was statistically significant.

This is compared with another study which was done on comorbid substance dependence and anxiety disorders. Such comorbidity was associated with more severe psychiatric symptoms and impairment in social and employment domains (Gros *et al.*, 2013). The presence of generalized anxiety disorder is associated with a more severity of SUD in form of rapid progression and chronic course with low rates of remission (Brady, 2012).

There are also several possible explanations for the observation. First, the addition of the comorbid anxiety disorder may result in an increased need to self-medicate, resulting in increased use of alcohol and polysubstance dependence, which leads to more severe complications as measured by ASI. Alternatively, it is possible that individuals with polysubstance dependence involving alcohol and/or sedatives are more likely to develop comorbid mood and anxiety disorders (Gros *et al.*, 2013).

Our study provides positive correlations between scoring of Hamilton rating scale of depression and all subscales of ASI. These correlations were statistically significant for ASI psychiatry subscale, family subscale, drugs subscale, legal subscale, medical subscale, and employment subscale. However, it was not statistically significant for alcohol subscale. In addition, there was a positive correlation between scoring of Hamilton rating scale of depression and addiction intensity scoring, which was highly statistically significant.

Another study on comorbid substance dependence and depression group found that comorbidity affected all the scales of the ASI but reached a statistical significance for only the medical, social, and psychiatric subscales (Erfan *et al.*, 2010). In addition, SUD patients with comorbid MDD had more severe impairments in multiple areas, including medical, legal, and social problems (Leventhal *et al.*, 2006).

On the contrary, a study by Mohsen *et al.* (2001) found that the comorbidity affected all the scales of the ASI but did not reach a statistical significance in any scale except for the psychological and family subscale, which reached a borderline significance. This is also comparable with the results by Abdel Rehem (2006), who mentioned that the comorbidity with depression had an effect on worsening the medical, the drug use, legal, social, and the psychiatric subscales when compared with the noncomorbid group of patients with SUD in that study. These differences reached a significant difference only in the medical subscale.

Several authors suggested that psychiatric comorbidity is a factor in the severity of substance dependence (Belfer, 1993; Osher and Kofoed, 1995), and there was a study that provided evidence that greater frequency of use over time was associated with long-term worsening of depressive symptoms. In addition, the increased severity depressive symptoms were associated with worse status of SUD. The depressive symptoms may even be a particularly strong trigger for relapse (Worley *et al.*, 2012).

Conclusions

Anxiety and depressive disorders are frequently diagnosed in patients with SUDs. Increased severity of both types of disorders is associated with increased parameters of substance use severity. Using more than one substance increases the likelihood of having more severe anxiety and depressive illness.

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Conflicts of interest

There are no conflicts of interest.

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