# Help-seeking patterns in an Egyptian sample of substance use disorder patients

Nivert Zaki<sup>a</sup>, Marwa Soltan<sup>a</sup>, Reem E.S. Hashem<sup>a</sup>, Mohamed Elwasify<sup>b</sup>, Mahmoud Elwasify<sup>b</sup> and Jehan Elturky<sup>a</sup>

<sup>a</sup>Department of Psychiatry Ain Shams University, Cairo and <sup>b</sup>Department of Psychiatry, Faculty of Medicine, Mansoura University, Mansoura, Egypt

Correspondence to Reem E.S. Hashem, MD, MRCPsych, Department of Psychiatry, Institute of Psychiatry, Ain Shams University, Abbassia Street, Cairo 11657, Egypt Tel: + 20 122 590 3031; fax: + 20 222 608 283; e-mail: dr.reemhashem@gmail.com

Received 17 January 2016 Accepted 30 May 2016

Middle East Current Psychiatry 2016, 23:147–152

## Background

Substance use disorder is a major problem worldwide. The increased number of addicts is not matched by an equal effort to increase awareness of the available services provided to them in their community. Patterns of seeking help and sources of advice and referral to specialized and professional help are not clear and quiet related to the cultural and demographical environment, something that had never been properly investigated in the Egyptian community.

#### Aim

This study explored the most frequent patterns of help-seeking behaviors among patients with substance use disorders and the referral sources to professional services.

## Participants and methods

This cross-sectional, questionnaire-based observational study was conducted among 40 patients aged above 18 years who were diagnosed with substance use disorder according to DSM-IV and who presented at the substance treatment program with male residential and outpatient services at the Institute of Psychiatry of Ain Shams University Hospitals over a period of 6 months. Exclusion criteria were limited mental competency, intoxication, or the inability to provide informed written consent. The data were gathered using Fahmy and El-Sherbini's Social Classification Scale, Addiction Severity Index, and a Researcher-Designed Questionnaire and were analyzed using SPSS software.

# Results

The primarily abused drug was tramadol, a seen in 70% of the sample, followed by heroin in 20% and other substances including alcohol in 12.5%. Family was the most frequent source of referral to professional help among cases attending the clinic, and emergency services was the least common. The mean severity profile scores measuring problems and functional impairment using Addiction Severity Index were higher in the 'employment' domain  $(0.66 \pm 0.32)$ , whereas legal  $(0.00 \pm 0.00)$ , alcohol  $(0.01 \pm 0.07)$ , and psychiatry  $(0.01 \pm 0.06)$  domains had lower scores. Our study concluded that patients who presented late for help (> 1 year) were mostly divorced, living in slum areas, and were middle class. We also found that they first approached their friends for consultation, and source of referral was emergency room or friends with the same problem.

#### Conclusion

Help-seeking through family was the most common pattern in our study.

#### Keywords:

Addiction Severity Index, seeking patterns, substance use

Middle East Curr Psychiatry 23:147–152 © 2016 Institute of Psychiatry, Ain Shams University 2090-5408

# Introduction

According to the WHO Eastern Mediterranean Regional Office (EMRO) technical paper on addiction and substance use in the middle Mediterranean area, substance use among the youth (15–24 years) is increasing and the average age of those who use addictive substances ranges from 33 to 44 years [1].

Reasons behind the increase in the prevalence of addiction and substance use in the region are the

geographic location, decrease in age at which substance use starts (from 14–18 to 11 years), and socioeconomic factors: the affluent can afford to buy illicit drugs, and the poor and unemployed are encouraged to use intoxicants [2].

The World Drug Report of 2014 reveals that in Europe and Asia, use of opioids (in particular, heroin) is the predominant cause of substance abuse. Amphetaminetype stimulants in South-East Asia, Oceania, North America, and West and Central Europe, and captagon

DOI: 10.1097/01.XME.0000484680.46326.1d

Copyright © 2016 Institute of Psychiatry, Ain Shams University. Unauthorized reproduction of this article is prohibited.

(i.e. amphetamine often mixed with caffeine) in the Arabian Peninsula, have emerged as the most problematic drugs [3].

In Egypt, Amr *et al.* [4] concluded that cannabis was the most common drug abused (as seen in 3.6% of patients presenting to the emergency room in hospitals in the Delta region), followed by tramadol and polysubstance (1.8 and 1.7% of patients, respectively), whereas tramadol ranked the first in the dependence group (in 1.2% of patients), followed by cannabis and stimulants (in 1 and 0.5% of patients, respectively). It was found that being younger, unmarried, being male, and having inadequate income were significant risk factors for substance abuse and dependence.

In Egypt, substance abuse behaviors are different because of cultural and demographic characteristics that make some substances more available and associated with fewer stigmas than others. Knowledge about alcohol and addiction is very limited as most of the sample patients believed that beer and cannabis are not addictive. The number of substance abusers seeking help for the first time and the factors that affect the usage of professional services for substance use problems are ambiguous [5].

The increased number of addicts is not matched by an equal effort to increase awareness of the available services provided to them in their community. Patterns of seeking help and sources of advice and referral to specialized and professional help are not clear and quiet related to the cultural and demographical environment, something that has never been properly investigated in the Egyptian community.

# Aims

This study sought to examine the most frequent patterns of help-seeking behaviors among patients with substance use disorders and the referral sources to professional services, as well as describe the effect of the patients' social level and addiction severity level on their helpseeking pattern.

# Participants and methods Study design

This is a cross-sectional, questionnaire-based, descriptive study.

# Participants

The sample included all adult male patients (aged 18–65 years) attending the outpatient and inpatient addiction services of Ain Shams Institute during the period from March 2014 to August 2014 with substance dependence. Many patients were excluded from the study because of limited mental competency, intoxication, the inability to provide written informed consent, or diagnosis of another psychiatric illness. The Institute of Psychiatry is located in Eastern Cairo and serves a catchment area of about a

third of Greater Cairo. It serves both urban and rural areas, including areas around Greater Cairo.

After taking approval from the ethics committee of the university, patients were enrolled in the study after taking written informed consent from them. The study was appropriately explained to the patients. All cases were diagnosed on the basis of DSM-IV for substance dependence and were assessed using Addiction Severity Index (ASI), Fahmy and El-Sherbini's Social Classification Scale, and a Researcher-Designed Questionnaire for help-seeking pattern.

# Tool

- (1) ASI: This scale serves as a quantitative measure of symptom and functional impairment due to drug disorders. It covers demographics, alcohol use, drug use, psychiatric status, medical status, employment, legal status, and family and social issues. Frequency, duration, and severity are assessed. It is formed of 142 items including yes or no, multiple choice, and scaled items [6].
- (2) Fahmy and El-Sherbini's Social Classification Scale: This scale is used to determine the social class of patients on the basis of seven domains. Patients are classified on the basis of education, employment, income, and crowding and sanitation into high (score: 25–30), middle (score: 20–25), low (score: 15–20), or very low social class (score: ≤14) [7]. An updated 2012 version was used as validated by El-Gilany *et al.* [8].
- (3) A Researcher-Designed Questionnaire: This was used to obtain data about help-seeking pattern variables and demographic variables (age, residence, marital status, social support, transportation to site of service, the first contact for consultation and a second opinion, the source of referral, the time between onset of illness and the act of seeking help).

## Statistical analysis

Data were analyzed using the statistical package for the social sciences (SPSS) program (version 18, 2008; SPSS Inc., Chicago, Illinois, USA), and presented as mean  $\pm$  SD for descriptive statistics and as frequency and percentage for categorical data.

# Results

The majority of our patients were aged 26 to 45 years (N = 23, 57.5%); all of them were male. Most of them were married (N = 27, 67.5%) and living in urban areas (N = 21, 52.5%); five (12.5%) patients were living in rural areas.

Most of them were from a low socioeconomic class (N = 25, 62.5%) (Table 1). The majority of cases (85%) attending the clinic needed transportation; 15% needed no transportation. Spouse and relatives showed more social support to the patients than did friends (Table 2).

Table 1	Description	of sociodemog	graphic characteristics
---------	-------------	---------------	-------------------------

	N (%) (N=40)
Age category (years)	
18–25	15 (37.5)
26–45	23 (57.5)
46-60	2 (5.0)
Marital status	
Single	11 (27.5)
Married	27 (67.5)
Divorced	2 (5.0)
Residence	
Rural	5 (12.5)
Urban	21 (52.5)
Slum	14 (35.0)
Socioeconomic status	
Low	25 (62.5)
Middle	15 (37.5)

Table 2 Social support pres	ented to the studied cases
-----------------------------	----------------------------

Support	Spouse (N=27)	Relatives (N=40)	Friends (N=40)
degree	[N (%)]	[N (%)]	[N (%)]
0	0 (0.0)	4 (10.0)	18 (45.0)
	5 (18.5)	0 (0.0)	6 (15.0)
2	2 (7.4)	0 (0.0)	5 (12.5)
3	2 (7.4)	9 (22.5)	5 (12.5)
4	18 (66.7)	27 (67.5)	6 (15.0)

Table 3 Addiction Severity Index among the studied cases (N=40)

Addiction Severity Index scales	Mean±SD	Median (IQR)	Range
Medical	0.13±0.31	0.00 (0.00-0.02)	0.00-1.00
Employment	$0.66 \pm 0.32$	0.72 (0.52-1.00)	0.04-1.00
Alcohol	$0.01 \pm 0.07$	0.00 (0.00-0.00)	0.00-0.41
Drugs	$0.30 \pm 0.14$	0.31 (0.18-0.38)	0.04-0.60
Legal	$0.00 \pm 0.00$	0.00 (0.00-0.00)	0.00-0.00
Family	$0.17 \pm 0.21$	0.14 (0.00-0.24)	0.00-0.90
Psychiatry	$0.01 \pm 0.06$	0.00 (0.00-0.00)	0.00-0.38

IQR, interquartile range.

Regarding the ASI severity profile scores, the mean severity profile scores measuring problems and functional impairment were higher in the 'employment' domain  $(0.66 \pm 0.32)$ , whereas legal  $(0.00 \pm 0.00)$ , alcohol  $(0.01 \pm 0.07)$ , and psychiatry  $(0.01 \pm 0.06)$  domains had lower scores (Table 3).

Family was the most common first contact for consultation and the primary source of referral among cases attending the clinic, whereas referral through friends with the same problem and emergency services was less common (as shown in Table 4).

We tried to find a correlation between the duration of illness before seeking help and the sociodemographic and ASI scores, but none of these variables (age, degree of proximity to service, degree of social support, degree of practicing spirituality, and ASI scales) showed a statistically significant correlation (Table 5).

All the divorced participants showed delayed presentation for help; 70.4% of the married participants presented after 1 year compared with only 54.5% among those Table 4 Variables related to help-seeking behavior

	N (%)
Contact for consultation	
Family	19 (47.5)
Spouse	12 (30.0)
Friend	6 (15.0)
Friend with the same problem	3 (7.5)
Source of referral	
Family	20 (50.0)
Spouse	9 (22.5)
Friend	5 (12.5)
Friend with the same problem	3 (7.5)
Nonprofessional	2 (5.0)
Emergency services	1 (2.5)
Duration of illness before seeking help	
<6 months	8 (20.0)
6–12 months	5 (12.5)
1-5 years	11 (27.5)
5-10 years	8 (20.0)
>10 years	8 (20.0)

Table 5 Correlation between duration of illness before seeking help and age, degree of proximity to service, degree of social support, degree of practicing spirituality, and Addiction Severity Index scales

Parameters	r	Р
Age	-0.029	0.858
Proximity	0.087	0.592
Spouse support	-0.188	0.347
Relatives support	0.120	0.462
Friends support	0.044	0.789
Addiction Severity Index so	cales	
Medical	0.007	0.968
Employment	-0.168	0.301
Alcohol	-0.114	0.484
Drugs	0.142	0.382
Legal	0.000	1.000
Family	0.162	0.318
Psychiatry	- 0.135	0.406

r, Spearman's correlation.

single. Late presentation occurred in about 85.7% of the studied participants who were living in slums (overcrowded district inhabited by very poor people), which is higher when compared with the participants living in urban (61.9%) and rural areas (40%) (Table 6).

The study showed that about 73.3% of individuals of middle socioeconomic status were late in seeking help compared with 64% of participants of low socioeconomic status. Similarly, 83.3% of the study participants who approached their friends as their first contact for consultation had a longer duration of illness before seeking help; in addition, 66.7% who sought out a spouse or a friend having the same problem also had delayed presentation (Table 6).

In our study, we observed that all participants who were referred through emergency services and friends with the same problem were late in their presentation. Regarding other sources, about 80% of the participants who were referred by their friends delayed seeking help, followed by 65% referred by family members and 55.6% referred by their spouses (Table 6).

Table 6 Different factors affecting the duration of illness before seeking help

	<1 year [N (%)]	$\geq$ 1 year [N (%)]
Marital status		
Single	5 (45.5)	6 (54.5)
Married	8 (29.6)	19 (70.4)
Divorced	0 (0.0)	2 (100.0)
Residence		
Rural	3 (60.0)	2 (40.0)
Urban	8 (38.1)	13 (61.9)
Slum	2 (14.3)	12 (85.7)
Socioeconomic status		
Low	9 (36.0)	16 (64.0)
Middle	4 (26.7)	11 (73.3)
Contact for consultation		
Family	7 (36.8)	12 (63.2)
Spouse	4 (33.3)	8 (66.7)
Friend	1 (16.7)	5 (83.3)
Friend with the same problem	1 (33.3)	2 (66.7)
Source of referral		
Family	7 (35.0)	13 (65.0)
Spouse	4 (44.4)	5 (55.6)
Friend	1 (20.0)	4 (80.0)
Friend with the same problem	0 (0.0)	3 (100.0)
Nonprofessional	1 (50.0)	1 (50.0)
Emergency services	0 (0.0)	1 (100.0)

Frequency of late onset of seeking help was nonsignificantly higher among cases abusing tramadol. No significant difference was found between cannabis use and the duration of illness before seeking help.

#### Discussion

Drug use continues to exact a significant toll, with valuable human lives and productive years of many persons being lost. An estimated 183 000 (range: 95 000–226 000) drug-related deaths were reported worldwide in 2012. According to the national addiction survey, there are at least a half a million addicts in Cairo alone who need treatment services. In addition to the considerable cost to human lives, drugs and alcohol have significant detrimental effects on the economy. Substance abuse problems cost the Egyptian economy approximately \$800 million annually, which includes the amount spent on illegal drugs and the government expenditure to combat the problem [9].

To our knowledge, only a few studies are available on the help-seeking pattern and perceived need for treatment among substance users in the Egyptian population and there are scarce data on the source of referral to the available addiction treatment services.

In this study, the most commonly presented age group was 26–45 years, which is consistent with the observations made by Hamdi *et al.* [5], Khalil *et al.* [10], Amr *et al.* [4], El-Sawy *et al.* [11], Al-Khafaji [12], and Merline *et al.* [13].

Most of our participants were living in urban areas (N = 21, 52.5%), as seen by El-Sawy *et al.* [11], in whose study 75.7% of substance users were living in urban areas. This might be attributed to the location of the Institute of Psychiatry as it services mainly urban areas.

Most of the patients attending our treatment program were from low to middle social class, living in urban and slum areas, and more than half of them needed at least one mode of transportation. Forty-five percent reported employment problems in the 30 days before presenting for treatment, which is supported by the findings of Khalil *et al.* [10]. This might be related to the fact that normally people of low social class present at university public hospitals as people of higher social class can seek help in the private health sector. That needs to be taken into consideration when assessing the cost burden of treatment on those patients when they use our services either at the outpatient clinic or in the residential places as it can limit their ability to remain in the treatment program for the appropriate duration.

Sixty-seven percent of our sample was married, consistent with the findings of the national research on addiction study (NRA) conducted in 1996, which found that those married represented about 57% of the total sample. However, Khalil *et al.* [10], Amr *et al.* [4], El-Sawy *et al.* [11], and Merline *et al* [13] stated that most of the patients in their sample were not married. That can be explained by the increased awareness among spouses to support their partners in seeking professional help especially as addiction can pose a major economic burden on the family budget.

Our study found that the primarily abused drug among patients who presented at our service was tramadol (70%), followed by heroin (20%) and others, including alcohol (12.5%). This finding was different from that of Khalil et al. [10], who found that heroin was the major problem substance (52%), followed by tramadol (23%), which may indicate the rising problem of tramadol abuse in patients. Another interesting point is that Hamdi et al. [5] and Okasha [14] found that cannabis was the most commonly used substance in the Egyptian community and opiates were the second most common drug group in terms of number of individuals seeking treatment (worldwide situation with regard to drug abuse - Report of the Secretariat) [15]; yet, cannabinoid users form a small percentage of help seekers. This can be attributed to the cultural acceptance of its use and it being considered a nonaddictive substance with no serious side effects on health.

On the other hand, Al-Khafaji [12] in his study in Iraq showed that the substance of preference was Artane (benzhexol), with around 30.5% dependent on it, followed by 25.5% on Rivotril (clonazepam), 15.5% on lorazepam (Ativan), and only 3.5% using alcohol. Only 7% were using polydrugs. No opiate or cannabis use was found.

These differences in substance preference are mostly due to their psychoactive effect, their illegal availability, low price, and the socioeconomic status of the population. The role of mass media in effecting this exposure seems to be quite serious, ranking in most cases after the role of personal friends [16]. Differences between the western and eastern populations can also exist because alcohol is prohibited in eastern populations such as Egypt because of religious reasons.

Regarding the ASI severity profile scores the highest mean severity profile score was for that measuring problems and functional impairment in the 'employment' domain (0.66) and the lowest scores were noticed in other domains such as legal, alcohol, and psychiatry (0.01). These findings were consistent with the ASI scores in the study by Khalil *et al.* [10]. Despite the high employment dysfunction scores, we did not find a correlation between this severity and the onset of perceiving the need for help, which highlights the significant economic negative effects of addiction on the individual and the community and the lack of sufficient efforts to counteract this effect on economy.

In our study we could not find a significant correlation between duration of illness before seeking help and the ASI scale, which measures the severity of dysfunction in the user's life. That is inconsistent with the results of Masson *et al.* [17], who found that about 34% of the participants reported that they were motivated to enter treatment when they recognized that their substance use disorder was adversely impacting their lives. That can be explained by the small size of our study population. It may also indicate the delayed recognition and response to functional impairment that is manifested in the Egyptian community by delayed presentation to healthcare services even for medical conditions other than addiction.

There was no correlation between the duration of illness and degree of proximity to service, although Appel and Oldak [18] argue that treatment accessibility and availability, such as how to pay for treatment or having a means to travel for treatment, was a barrier to enrollment in substance abuse treatment even more than were personal barriers. The difference in results can be explained by the fact that participants in our study were already enrolled in our service whereas Appel and Oldak [18] made a general population survey.

Additionally, no correlations were found between the duration of illness, age, and degree of social support. This can be attributed to the small size of our study sample and the time of recruitment.

Our study concluded that patients who presented late for help (>1 year) were mostly divorced, living in slum areas, and middle class. They first approached their friends for consultation, and the source of referral was emergency room or friends with the same problem. These findings were inconsistent with those of Oleski *et al.* [19], Wu *et al.* [20], and Wang *et al.* [21]. These differences in the help-seeking pattern among different studies are attributed to different cultural and socioeconomic factors of the studied participants.

Our study concluded that opiate users show delayed onset of seeking help compared with other substance users, whereas cannabis users show no difference in the duration of use before seeking help compared with other substance users. This might indicate the late perception of need for help in opiate users, which manifests after cumulative and significant functional impairment. As after patients sought help in the emergency room, they received the adequate care improving their medical problem as a result they continued substance intake as their medical condition subside.

In the current study, the participants who were referred from the emergency room represent a considerable proportion of those with delayed presentation. This may be due to relief from a medical problem as a result of treatment received in the emergency room, resulting in continued substance intake after resolution of the medical condition.

Our study concluded that higher levels of social support were shown mainly by spouses and relatives, whereas friends showed a lower level.

Family was the most common first contact for consultation or second opinion among cases, in contrast to the results of Naegle *et al.* [22]. The main cultural difference is the prominent role played by the family in our culture as compared with the western culture in which there is individual responsibility.

Referral from a friend with the same problem was the least common source of referral. Masson *et al.* [17] and Bachman *et al.* [23] attributed this to the fact that drugusing peers hinder the treatment process. We can conclude that it is necessary to avoid environments that promote substance abuse and the negative influence of substance-using friends.

Our study showed that medical services constituted only 2.5% of the total source of referrals in our study, and that having medical problems did not affect the onset of perceiving the need for help at professional addiction services. This finding is related to the conservative nature of the Egyptian society that discourages disclosure about drug intake fearing the stigma and the 'fear of losing face'. The delayed presentation may also be due to lack of awareness and appropriate counseling at the level of primary healthcare and general practitioners.

An epidemiologic study with a larger number of patients presenting at addiction services is needed to assess the help-seeking pattern and identify correlations with other sociodemographic variables and the severity of substance abuse in Egypt. Further studies are needed to evaluate the effectiveness of the current treatment programs and how well these programs match patients' needs.

# Conclusion

The primarily abused drug is tramadol, seen in 70% of the sample, followed by heroin in 20% and then other substances. Family was the most frequent first contact for consultation or second opinion among outpatients. The role of medical services as a source of referral is very limited and further efforts must be made to increase its role.

### Limitations

The sample size is small and it is not a randomized sample. The questionnaire is self-reported and hence the answers are subjective. The study is limited to Ain Shams University Hospitals and does not include other university hospitals or other hospitals of the Ministry of Health or other addiction centers in Egypt. Thus, the results of this study cannot be generalized.

## **Clinical implications**

Substance use disorder patients need to be assessed regarding their perceived need for help and their barriers to service use whether physical, psychological, or social. There should be more emphasis in the community on addiction as a medical and psychiatric problem and not merely as a moral one to reduce the stigma associated with it. There should be increased awareness among primary healthcare personnel about the importance of diagnosing and managing comorbid psychiatric disorders (in general) and substance use disorder (in particular) besides referral of cases to specialized treatment if necessary.

# Acknowledgements

Conflicts of interest

There are no conflicts of interest.

#### References

- 1 WHO Regional Office for Eastern Mediterranean. Technical paper: substance use and dependence. Nasr City, Cairo, Egypt: WHO; 2005.
- 2 UNDOC. *World drug report 2010.* New York: United Nations office on Drugs and Crime; 2010.
- United Nations Office on Drugs and Crime Vienna. World drug report 2014. New York: United Nations office on Drugs and Crime; 2014.
- 4 Amr M, El-Gilany A, Elmogy A, Fathi W. Substance abuse and dependence among patients attending an emergency hospital in eastern Nile delta, Egypt. Afr J Psychiatry 2014; 17:532–537.
- 5 Hamdi E, Sabry N, Sedrac A, Refaat O. The national addiction survey final report. Egypt: Research Unit of General Secretariat of Mental Health, Ministry of Health, Egypt; 2011.

- 6 McLellan AT, Luborsky L, Cacciola J, Griffith J, Evans F, Barr HL, O'Brien CP. New data from the Addiction Severity Index. Reliability and validity in three centers. J Nerv Ment Dis 1985; 173:412–423.
- 7 Fahmy S, El-Sherbini AF. Determining simple parameters for social classifications for health research. Bull High Inst Public Health 1983; 13:95–108.
- 8 El-Gilany A, El-Wehady A, El-Wasify M. Updating and validation of the socioeconomic status scale for health research in Egypt. East Mediterr Health J 2012; 18:962–968.
- 9 United Nations Office on Drugs and Crime Vienna. *World drug report 2011*. New York: United Nations Office on Drugs and Crime; 2011.
- 10 Khalil A, Okasha S, Tarek M, Mansour S, Amany H, Mahmoud E, et al. Characterization of substance abuse patients presenting for treatment at a University Psychiatric Hospital in Cairo, Egypt. Addict Disord Their Treat 2008; 7:199–209.
- 11 El-Sawy H, Abdel Hay M, Badawy A. Gender differences in risks and pattern of drug abuse in Egypt. Egypt J Psychiat Neurosurg 2010; 47: 413–418.
- 12 Al-Khafaji AM. Substance dependence in Diwania province. Kufa Med J 2010; 13:118–128.
- 13 Merline AC, O'Malley PM, Schulenberg JE, Bachman JG, Johnston LD. Substance use among adults 35 years of age: prevalence, adulthood predictors, and impact of adolescent. Am J Public Health 2004; 94:96–102.
- 14 Okasha A. Young people and the struggle against drug abuse in the Arab countries. Bull Narc 1985; 37:67–73.
- 15 Negm MG, Fouad AA. Prevalence of substance abuse among adolescent school students in Zagazig. Egypt J Psychiatr 2014; 35:161–166.
- 16 Soueif MI, El-Sayed AM, Darweesh ZA, Hannourah MA. The extent of nonmedical use of psychoactive substances among secondary school students in Greater Cairo. Drug Alcohol Depend 1982; 9:15–41.
- 17 Masson CL, Shopshire MS, Sen S, Hoffman KA, Hengl NS, Bartolome J, et al. Possible barriers to enrollment in substance abuse treatment among a diverse sample of Asian Americans and Pacific Islanders: opinions of treatment clients. J Subst Abuse Treat 2013; 44:309–315.
- 18 Appel PW, Oldak R. A preliminary comparison of major kinds of obstacles to enrolling in substance abuse treatment (AOD) reported by injecting street outreach clients and other stakeholders. Am J Drug Alcohol Abuse 2007; 33:699–705.
- 19 Oleski J, Mota N, Cox BJ, Sareen J. Perceived need for care, help seeking, and perceived barriers to care for alcohol use disorders in a national sample. Psychiatr Serv 2010; 61:1223–1231.
- 20 Wu LT, Ringwalt CL, Williams CE. Use of substance abuse treatment services by persons with mental health and substance use problems. Psychiatr Serv 2003; 54:363–369.
- 21 Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelvemonth use of mental health services in the United States: results from the National Comorbidity Survey Replication. Arch Gen Psychiatry 2005; 62:629–640.
- 22 Naegle MA, Ng A, Barron C, Lai TM. Alcohol and substance abuse. West J Med 2002; 176:259–263.
- 23 Bachman S, Batten H, Minkoff K, Higgins D, Manzik N, Mahoney D, et al. Predicting success in a community treatment program for substance abusers. Am J Addict 1992; 1:155–167.