

## Personality Disorders in Treatment – Seeking Substance Dependent Patients

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**Objective:** Co-morbidity of personality disorders with illicit drug abuse has a deleterious effect on the management outcome of both conditions. This study was conducted to assess the prevalence of different personality disorders among substance dependent patients in an Iranian city (Isfahan) with a view to have a better understanding of various management strategies.

**Methods:** A total of 368 different patients with substance dependency (363 men, 5 women; mean age 29±9 years) were selected for the study. Using a Persian translation of DSM-IV, information was collected on (i) demographic data; and (ii) personality disorders criteria.

**Results:** A total of 299 clients (81.3%) had at least one personality disorder. Lower level of education, younger age and being married were significantly associated with a higher prevalence of personality disorders.

**Conclusion:** Our findings indicate the importance of assessment of personality disorder for all patients with substance abuse/dependency in order to draw up a more effective management strategy.

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### Introduction

Substance dependency is a long term and multidimensional disorder associated with high rates of physical and mental health problems (1). It is also associated with high morbidity and premature mortality (1).

Personality disorders have consistently been reported as the most co-morbid psychiatric diagnosis among individuals who are addicted to alcohol and other illegal substances (2-5). A diagnosis of personality disorder has been identified as one of the most important predictors of treatment outcome in patients with substance misuse/dependency (2, 3, 6-8).

In one study, following an in-patient detoxification, relapse rate of opium dependency in patients with co-morbid antisocial personality disorder was high both at 3 and 6 months

intervals after discharge (9). Moreover, antisocial personality disorder, as a predictor of poor treatment outcome, has been identified as a risk factor for HIV infection among intravenous drug users. It has also been associated with higher rates of HIV related high-risk sexual behaviors (10-12).

By informing the clinician in reducing the risk of relapse through appropriate management of co-morbid psychiatric disorder, studies on correlation between specific psychiatric disorders and substance misuse have important implication in predicting treatment outcome (13-15).

Due to geographical proximity to Afghanistan, the prevalence of addiction to opioid is extremely high in Iran. While in pre-revolution era (before 1978) opium dependency used to be more common in older generation, in recent years there has been a concern regarding the high prevalence of opioid abuse among the young (16).

Previous studies on Iranian substance-dependent patients have focused primarily on demographics data and drug use behavior. Iranian studies on psychiatric co-morbidities among people with substance use problems are, therefore, sparse (16).

Current study was conducted to address this gap in current literature in order to assess

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the prevalence of different personality disorders among patients with substance misuse and dependency.

## Materials and Methods

Study population included a total of 368 patients who met DSM-IV criteria for dependency to different kinds of substances (e.g. opioid, amphetamine, cannabis, cocaine, hallucinogens, phencyclidine and sedatives) admitted to out-patient detoxification unit of Noor university hospital, Isfahan. The ethics committee of Isfahan University of medical sciences approved the study protocol.

Subjects were guaranteed about the confidentiality of the information they volunteered. All patients gave written informed consent before entering the study.

### Assessment:

Socio-demographic data and substance use history were obtained through face to face psychiatric interview by one of the authors. Using a Persian translation of DSM-IV, data were collected through administering a structured questionnaire. The 30-day test-retest reliabilities of the administered Persian questionnaire had been calculated previously in a sample of Iranian adolescents. It ranged from 0.64 to 0.82 (9). In the aforementioned study, the content and face validities of the Persian version of DSM-IV were also deemed acceptable (9). A diagnosis of substance dependency was made based on DSM-IV criteria.

## Results

### Sociodemographic data and dependency profile:

Out of 368 clients, 363(98.6%) were men and 5(1.4%) women with the mean age of  $29 \pm 9$  years. More than half of the participants were younger than 30 years old and 31.2% of them were between 30 and 40 years old. The majority of subjects (62.7%) were married. Most of the clients (55.1%) had school

education. Only 7% of clients had university education.

Two hundred thirty five (63.8%) and One hundred thirty three (36.2%) of clients were respectively dependent on either opium or other substances. Although, there was some degree of overlap in the way substances were used, the most prevalent route of administration was smoking (57%) followed by oral route (37.5%), injecting intravenously (IV) (4.3%) and snuffing (1%).

### Personality disorders:

Our findings showed that 81.3% of the participants (n=299) had personality disorder. Overall, schizoid personality disorder was the most frequent psychiatric co-morbidity (11.6%) followed by Obsessive (11.2%), borderline (10.7%), antisocial (10.3%), paranoid (8.1%) and schizotypal (7.5%) personality disorders. Other personality disorders (e. g. histrionic, narcissistic, avoidant, dependent) had a prevalence of 5% to 7%. It was interesting to see that presence of antisocial personality disorder was the most common co-morbid psychiatric disorder among younger clients (below 30 years old). Higher level of education and age were inversely associated with prevalence of personality disorders. Married clients had relatively higher prevalence of personality disorders than single ones (Table 1). All patients who abused heroin/methamphetamine and all IV drug abusers had one type of personality disorder (Table 1).

## Discussion

Our study demonstrated that the prevalence of personality disorders in Iranian illicit drug dependent patients who voluntarily sought treatment was extremely high (81.3%). Surprisingly, this is in contrast to a study in one of Iran's neighboring country, Pakistan, which showed that the prevalence of personality disorders in treatment seeking opioid dependent patients was only 6% (17).

**Table 1.** Prevalence of different personality disorders based on demographic variables, the types and methods of substance misuse

|                                | Paranoid  | Schizoid | Schizotypal | Borderline | Histerionic | Narsisitic | Avoidant | Dependent | Obsessive-compulsive | Antisocial | Neither   | Total      |
|--------------------------------|-----------|----------|-------------|------------|-------------|------------|----------|-----------|----------------------|------------|-----------|------------|
| <b>Age(yr)</b>                 |           |          |             |            |             |            |          |           |                      |            |           |            |
| <30                            | 20(5.4 %) | 26(7%)   | 17(4.6%)    | 26(7%)     | 14(3.8%)    | 13(3.5%)   | 11(2.9%) | 11(2.9%)  | 27(7.3%)             | 28(7.6%)   | 20(5.4%)  | 213(57.9%) |
| 30-40                          | 7(1.9%)   | 14(3.8%) | 10(2.7%)    | 12(3.2%)   | 7(1.9%)     | 6(1.6%)    | 8(2.1%)  | 4(1.0%)   | 11(2.9%)             | 7(1.9%)    | 29(7.8%)  | 115(31.2%) |
| >40                            | 3(0.8%)   | 3(0.8%)  | 11(0.2%)    | 2(0.5%)    | 2(0.5%)     | -----      | 1(0.2%)  | 1(0.2%)   | 4(1.0%)              | 3(0.3%)    | 20(5.4%)  | 40(10.8%)  |
| <b>Marital state</b>           |           |          |             |            |             |            |          |           |                      |            |           |            |
| Single                         | 12(3.2%)  | 15(4%)   | 12(3.2%)    | 16(4.3%)   | 9(2.4%)     | 6(1.6%)    | 7(1.9%)  | 6(1.6%)   | 10(2.7%)             | 16(4.3%)   | 11(2.9%)  | 120(32.6%) |
| Married                        | 18(4.8%)  | 27(7.3%) | 14(3.8%)    | 23(6.2%)   | 14(3.8%)    | 13(3.5%)   | 13(3.5%) | 10(2.7%)  | 30(8.1%)             | 22(5.9%)   | 47(12.7%) | 231(62.7%) |
| Divorced                       | -----     | 1(0.2%)  | 2(0.5%)     | 1(0.2%)    | -----       | -----      | -----    | -----     | 2(0.5%)              | -----      | 11(2.9%)  | 17(4.6%)   |
| <b>Education</b>               |           |          |             |            |             |            |          |           |                      |            |           |            |
| High school or lower           | 17(4.6%)  | 23(6.2%) | 19(5.1%)    | 21(5.7%)   | 11(2.9%)    | 13(3.5%)   | 16(4.3%) | 11(2.9%)  | 24(6.5%)             | 23(6.2%)   | 25(6.7%)  | 203(55.1%) |
| High school Diploma            | 11(2.9%)  | 16(4.3%) | 9(2.4%)     | 17(4.6%)   | 12(3.2%)    | 5(1.3%)    | 4(1.0%)  | 4(1.0%)   | 15(4.0%)             | 12(3.2%)   | 34(9.2%)  | 139(37.7%) |
| University                     | 2(0.5%)   | 4(1.0%)  | -----       | 2(0.5%)    | -----       | 1(0.2%)    | -----    | 1(0.2%)   | 3(0.8%)              | 3(0.8%)    | 10(2.7%)  | 26(0.7 %)  |
| <b>Drug</b>                    |           |          |             |            |             |            |          |           |                      |            |           |            |
| Opium                          | 21(5.7%)  | 31(8.4%) | 18(4.8%)    | 27(7.3%)   | 15(4.0%)    | 12(3.2%)   | 15(4.0%) | 11(2.9%)  | 32(8.6%)             | 23(6.2%)   | 30(8.1%)  | 235(63.8%) |
| Opium syrup                    | 4(1.0%)   | 5(1.3%)  | 6(1.6%)     | 6(1.6%)    | 4(1.0%)     | 4(1.0%)    | 3(0.8%)  | 2(0.5%)   | 5(1.3%)              | 5(1.3%)    | 25(6.7%)  | 69(18.7%)  |
| Heroin                         | 3(0.8%)   | 4(1.0%)  | 2(0.5%)     | 4(1.0%)    | 2(0.5%)     | 2(0.5%)    | 1(0.2%)  | 1(0.2%)   | 2(0.5%)              | 5(1.3%)    | -----     | 26(7.0%)   |
| Cannabis                       | 1(0.2%)   | 2(0.5%)  | 2(0.5%)     | 2(0.5%)    | 2(0.5%)     | 1(0.2%)    | 1(0.2%)  | 1(0.2%)   | 2(0.5%)              | 4(1.0%)    | 14(3.8%)  | 32(8.6%)   |
| Other †                        | 1(0.2%)   | 1(0.2%)  | -----       | 1(0.2%)    | -----       | -----      | -----    | 1(0.2%)   | 1(0.2%)              | 1(0.2%)    | -----     | 6(1.6%)    |
| <b>Route of administration</b> |           |          |             |            |             |            |          |           |                      |            |           |            |
| Smoking                        | 15(4.0%)  | 26(7.0%) | 13(3.5%)    | 21(5.7%)   | 12(3.2%)    | 9(2.4%)    | 11(2.9%) | 8(2.1%)   | 25(6.7%)             | 17(4.6%)   | 53(14.4%) | 210(57.0%) |
| Oral                           | 13(3.5%)  | 15(4.0%) | 12(3.2%)    | 16(4.3%)   | 10(2.7%)    | 10(2.7%)   | 7(1.9%)  | 8(2.1%)   | 15(4.0%)             | 16(4.3%)   | 16(4.3%)  | 138(37.5%) |
| Intravenous                    | 1(0.2%)   | 1(0.2%)  | 3(0.8%)     | 2(0.5%)    | 1(0.2%)     | -----      | 2(0.5%)  | -----     | 1(0.2%)              | 5(1.3%)    | -----     | 16(4.3%)   |
| Snuffing                       | 1(0.2%)   | 1(0.2%)  | -----       | 1(0.2%)    | -----       | -----      | -----    | -----     | 1(0.2%)              | -----      | -----     | 4(1.0%)    |

†including methamphetamines and sedatives

A study on opioid-dependent men in Greece showed that antisocial personality disorder had a lifetime prevalence of 69.3% (18). Another study in Spain reported that borderline and paranoid personality disorders were the most prevalent co-morbidity among patients with cocaine abuse (19). A study in Taiwan on heroin abusers, however, indicated that antisocial personality disorder was the most common psychiatric co-morbidity in men (39.7%), whereas mood disorders were more common among women (20).

There are different explanations as to the observed association of substance dependency and personality disorders. The first possibility is that substance dependency and personality disorders may co-occur because of a common genetic vulnerability. In support of this hypothesis, twin family studies have revealed that the co-morbidity of substance dependency and antisocial personality traits could be accounted for by a highly heritable latent externalizing trait (21, 22).

Secondly, substance abuse may be a predisposing, precipitating or perpetuating factor for some psychiatric disorders (8,14). The third explanation is that, certain personality disorders can be risk factors for further development of substance related disorders (18,23,24). This explains why appropriate treatment strategies for modifying these

personality characteristics may have a therapeutic value for patients with substance misuse and dependency. Joint treatment strategies for both conditions may improve the therapeutic relationship between doctor and patient, which is extremely important for a successful treatment of substance related disorders.

Our findings also indicated that younger patients with lower levels of education were more likely to be afflicted by personality disorders. Heroin/methamphetamine abuse and IV administration of illicit drugs were significantly associated with a diagnosis of especially antisocial personality disorder.

The number of women in our study was not enough to assess the gender differences in prevalence of personality disorders among substance-dependent individuals. This can be possibly explained by the higher prevalence of substance misuse and personality disorder in men in general. Another limitation of our study was that it was conducted on a sample of patients who sought treatment and therefore its results can not be generalized to all people with substance misuse.

Due to the design of our study (cross-sectional), we were unable to determine which condition preceded the other. There was also possibility of recall and observer

biases because of data collection through subjective methods. However, we tried to minimize these by using structured questionnaires and trained interviewer.

### Conclusion

In conclusion, our findings indicate the importance of assessing personality disorders among all patients with a history of substance abuse/dependency in order to design more effective management strategies to improve the treatment outcome.

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