IPA
International Journal of Psychology
Vol. 6, No. 2, Summer & Fall 2012
PP. 112-126

Iranian Psychological
Association

Relationship between Personality Disorders and Types of Drugs Used in Addicts

Sima, S. Noorbakhsh
Ddepartment of Psychology
Tabriz University

Zeynab Khanjani, PhD
Ddepartment of Psychology
Tabriz University

Hamid Poorsharifi, PhD
Department of Psychology
Tabriz Uuniversity

Given the importance of drug addiction, this article aims to study the current relationship between personality disorders and types of drugs used (narcotics and stimulants) in Iranian addicts. The sample consisted of 285 drug addicts including 132 narcotic addicts and 153 stimulant addicts selected randomly in several phases. Data collecting process was accomplished by means of clinical interviewing based on DSM-IV criteria for addiction, Addiction Severity Index (ASI), and Millon Clinical Multiaxial Inventory – III (MCMI-III). Using Pearson correlation coefficient and regression, the gathered data were analyzed. There was a significant correlation between stimulant consumption and histrionic personality disorder ($p<0.001$) and antisocial and narcissistic personality disorders ($p<0.05$). Besides, correlation between avoidant, histrionic and narcissistic personality disorders ($p<0.05$) and depressed, antisocial and borderline personality disorders ($p<0.001$) with narcotics consumption was significant. In total, there was a significant correlation between cluster B personality disorders, and narcotics and stimulants consumption in surface ($p<0.001$). In addition, this relation was explored between cluster C personality disorder and narcotics ($p<0.001$). The results of this article in terms of personality disorders and types of drug used match with the previous studies results. In order to provide medical treatment, it is necessary to find out which kind of personality disorders addicts suffer from.

Keywords: personality disorders (PDs), narcotic drugs, and stimulant drugs.

Before the third issue of DSM, dependence to narcotics and alcohol were considered as symptoms of personality disorders (PDs). However, in the very third issue, disorders in drugs consumption were identified as a single clinical symptom. From then on, psychological co-morbidity has been viewed as an important subject in drug consumption (American Psychiatric Association, 1980). PDs are rigid, inflexible, and maladaptive behavior patterns of sufficient severity to cause significant impairments in functioning or internal distress. They are enduring and persistent style of behavior and thought, not atypical episodes (CSAT, 1994). The high prevalence of DSM-IV PDs among those with substance use disorders is evident in the research literature. A recent literature review summarizing prevalence rates (Verheul, 2001) concludes that estimates of the overall axis II prevalence range from 34 to 73% in treated addicts, with the most popular PDs being antisocial and borderline PDs.

A short review of previous studies revealed individuals with certain personality disorders, especially the antisocial PD, were more prone to drug-consumption disorders (Khantzian and Treece, 1985; Conway, Swenden, Rounsaville, and Ries, 2002; Echeburau, Bravo, and Medina, 2005) and persons dependent to different types of drugs showed more personality disorders co-morbidity (Dejong, Brink, Harteveld, and Wielen, 1993; Nace, Davis, and Gaspari, 1991). A meta-analysis has shown that patients under medical treatment for drug abuse disorders display more personality disorders co-morbidity than normal individuals (O'Boyle, 1993). Another study conducted by Grana, Munoz, and Navas (2009) showed the chronic drug consumers had higher scores in schizoid and antisocial PDs than the functional consumers.

Taking into account the corroboration of the aforementioned reality, authors like San Narciso et al. (2009) found that antisocial and borderline PDs are the most frequently diagnosed PDs in Heroin addicts undergoing methadone-based treatment. In addition, Grana et al. (2009) found antisocial and schizoid traits are the most outstanding traits of heroin addicts and poly –consumers. However, cocaine use (Falck, Wang, Siegal,

and Carlson, 2009) often is associated with psychiatric co-morbidity like antisocial PD (24%), major depression disorder (18%), and posttraumatic stress disorder (12%).

It is generally accepted that addicts prefer drugs that have best effects on removing their personality problems and use other kind of drugs only when they are deprived from the preferred ones (Verheul, 2001). For example, Heroin and Cannabis have their special psychic and medicinal effects. Cannabis consumption does not make individual prone to heroin consumption but it may drive him/her to use drugs that are more dangerous. Evidence indicates that Opium addicts had been suffered many psychic problems before getting addicted. Of these problems are neurotic or antisocial behaviors, drowsiness and fatigue, poor personal performance, pseudo- schizophrenia (in some cases), depression and alienation. For addicts, effects of drug abuse are solutions by which they can overcome their problems (OSAS, 2004).

Evidence reveals that drugs may be chosen by an addict due to their self-medicating effects (Ford et al., 2009). Robbins (1992) points out that addicts use drug to reduce their social anxieties. He also argues that addicts to narcotics may use them in order to overcome their aggressiveness. However, these suggestions about the specific relationship between psychological problems and drug choosing have not been scrutinized. Yet, drugs are the most powerful means to change one's mental state because of the effects drugs have in minimizing psychic problems. Some abuse drugs to reduce anxieties, irritation and depression. Therefore, in cases of self-medication, it would be better to consider a proper plan to solve fundamental problems (Ford et al., 2009).

This article tries to determine the relationship between forms of personality disorders and types of drugs used. What have been studied largely in previous surveys were personality disorders of cluster B (specially borderline and anti-social personality disorders), addiction, and its intensity. The article aims to study all personality disorders. It is noteworthy that no research has yet concentrated on comparing narcotics

(including Opium, Shireh, Heroin and Crack made in Iran) to stimulants (as Methamphetamine and Cocaine) in Iran. Undoubtedly, any knowledge about the personal characteristics of these groups of drug users sheds new lights on the more effective medical treatment. Thus, if routine personality assessment improves outcomes of substance abuse treatment, the clinical implication is to increase the use of personality disorder assessment in substance abuse treatment settings (Hesse and Pedersen, 2008).

Method

Participants

The sample comprises addicts under clinical treatments in Tehran, from 18 to 45 years, who met the DSM-IV (APA, 1994) criteria for substance dependence and were in diverse treatment programs. The sample consisted of 285 addicts, 132 were narcotics users and 153 used stimulants. Dependants were selected randomly through a several-phase sampling process. In the first step, addiction-treatment clinics were classified into 4 groups of North, East, West and South ones in Tehran. Then, in each region 2 clinics were selected for sampling. All the participants were asked to sign a letter of consent.

Instruments

Iranian Addiction Severity Index (ASI). The variables used for the investigation were grouped into three categories: 1) socio-demographic: gender, age, years of education, and main source of income; 2) consumption: main substance, type of treatment, years of consumption; and 3) severity. The variables scores range from 0 (minimum level) to 9 (maximum Level).

Millon Clinical Multiaxial Inventory-III (MCMI-III). MCMI-III questionnaire issued in 1996 was applied as a valid psychological assessment tool measuring a wide range of information about personality and emotional adjustment in order to study personality disorders of the subjects. The questionnaire is composed of 175 standardized self-report

true/false questions and in sum, determines 14 personality clinical patterns and 10 clinical symptoms and is used for adults (18 and over). This test was modeled by Millon psychopathology model (1983/1996b) and has been revised twice. In Iran, the questionnaire has been normalized twice. Khāje Mogahi (1993) in Tehran and Sharifi (2002) in Isfahan have normalized respectively the second and third edition of the test. MCMI-III is a valid test, which can be used for diagnosing PDs and clinical symptoms (Sharifi, Molavi, Namdari, 2007). 14 Personality Disorder Scales correspond with Axis II diagnoses of the DSM-IV. They describe conditions that are more pervasive. They are broken down further into 11 basic, clinical personality patterns (Scales 1-8B) and 3 severe personality pathology scales (S-P) (Millon, 1966b).

Data-Analysis

This research was a correlational study. The data were analyzed both descriptively and inferentially. Applying Pearson Correlation coefficient in the inferential part, questions and hypothesis of the research were examined.

Results

The average age of the addicts to stimulants was 28.8 while the average number of addicts to narcotics was 33.1. Half of the narcotic dependents were married (N=67), one divorced, and the rests were single (N=65). 42 stimulant dependents were married, 96 single and 15 divorced. Most of the stimulant dependents were single while the married and single ones are nearly equal among narcotic dependents. Most of the addicts to narcotics were jobless and most of stimulant dependents had free jobs. Most of narcotic and stimulant dependants had Diplomas (certificate for secondary education graduates in Iran) or secondary education undergraduates. In addition, the frequency of narcotic dependants with Diploma, associates degree and B.A. was less than stimulant dependents. This fact revealed that the educated ones probably had more intention toward Stimulants consumption.

In order to explore the relationship between personality disorders and addiction to certain types of drugs, the Pearson Correlation Coefficient was applied and the results have been presented in two ways: for each disorder and for each cluster.

Table 1

Correlation Coefficients between PDs and Types of Drug Used

Variant	Stimulant	Opium
1. Schizoid	0.2	0.31
2A. Avoidant	0.32	0.51^{*}
2B. Depressed	0.1	0.6^{**}
3. Dependent	0.24	0.2
4. Histrionic	0.7^{**}	0.54^{*}
5. Narcissistic	0.47^{*}	0.43^{*}
6A. Anti-social (Aggressive)	0.61^{*}	0.55^{**}
7. Compulsive	0.2	0.12
8A. Negativistic (Passive-Aggressive)	0.11	0.4
8B. Masochistic (Self-Defeating)	0.24	0.24
S. Schizotypal	0.33	0.2
C. Borderline	0.57^{**}	0.34
P. Paranoid	0.1	0.23

$(p<0.05)^{*}$, $(p<0.001)^{**}$

As is shown in Table 1, there is a significant correlation between stimulant consumption with histrionic personality disorder in surface ($p<0.001$) and with antisocial and narcissistic personality disorders in surface ($p<0.05$). Also, there are significant correlations between narcotic consumption and histrionic, narcissistic and avoidant personality disorders in surface ($p<0.05$) and, depressive, antisocial and borderline personality disorders in surface ($p<0.001$),

Table 2

Correlation Coefficients between Clusters A, B, and C PDs and Types of Drug Used

variant	Stimulant	Opium
Cluster A	0.2	0.11
Cluster B	0.53**	0.6**
Cluster C	0.3	0.7**

(p<0.05)*, (p<0.001)**

According to Table 2, examining the correlation coefficients between personality disorders and type of drug used, reveals that there is a significant correlation between personality disorders of cluster B and narcotics and stimulant consumption in surface (p<0.001). In other word, with any increase in personality disorders of cluster B (antisocial, narcissistic, borderline and histrionic), there is an increase in the dependence to stimulants and narcotics. On the other hand, Table 2 shows that there is also a significant correlation between personality disorders of cluster C and narcotics consumption in surface (p<0.001). That is, any increase in personality disorder of cluster C (avoidant, dependant and obsessive) results in an increasing tendency toward narcotic consumption. No significant correlation is observed between personality disorders cluster A and any drug consumption.

Table 3

Linear Regression between Personality Disorders and Types of Drugs Used

Personality Disorders	Drug Type	number	Regression Coefficient	Significance surface
Schizoid	Narcotic	132	-0.06	0.22
	Stimulant	153	-0.02	0.88
Avoidant	Narcotic	132	-0.20*	0.001
	Stimulant	153	-0.12	0.25

Depressive	Narcotic	132	-0.17*	0.001
	Stimulant	153	-0.29	0.06
Dependant	Narcotic	132	-0.08	0.60
	Stimulant	153	-0.13	0.27
Histrionic	Narcotic	132	-0.42*	0.001
	Stimulant	153	-0.61*	0.001
Narcissistic	Narcotic	132	-0.45*	0.001
	Stimulant	153	-0.29*	0.001
Anti-social	Narcotic	132	-0.29*	0.001
	Stimulant	153	-0.19*	0.001
Compulsive	Narcotic	132	-0.07	0.25
	Stimulant	153	-0.05	0.94
Negativistic	Narcotic	132	-0.20	0.84
	Stimulant	153	-0.03	0.81
Masochistic	Narcotic	132	-0.13	0.23
	Stimulant	153	-0.12	0.28
Schizotypal	Narcotic	132	-0.29	0.05
	Stimulant	153	-0.27	0.40
Borderline	Narcotic	132	-0.32*	0.001
	Stimulant	153	-0.09	0.34
Paranoid	Narcotic	132	-0.28	0.80
	Stimulant	153	-0.05	0.04

($p<0.001$)*

The results of Linear Regression in Table 3 shows Avoidant, Histrionic, Narcissistic, Depressive, Anti-social, and Borderline PDs play significant role in Narcotic dependents. In addition, Histrionic, Anti-social, and Narcissistic PDs can predict Stimulant use.

Conclusion

The research findings revealed that there was a significant correlation between personality disorders of cluster B and both narcotic and stimulant

consumption, while personality disorders of cluster A had no significant correlation with narcotic and stimulant consumption. On the other hand, personality disorders of cluster C showed a significant correlation only with narcotics (like Opium, Heroin and Crack in Iran) consumption. As it was suggested, analyzing the relationship between certain types of drugs used with each personality proved that narcotic consumption was associated with histrionic, borderline, depressive, avoidant, antisocial and narcissistic personalities, and stimulant usage related with narcissistic, antisocial and histrionic personalities disorders.

The simultaneity of the relationship between personality disorders, drug abuse disorders and type of drugs used in a meta-analysis indicated that the borderline and antisocial personality disorders in stimulant users, dependant, avoidant, schizoid and borderline personality disorders were prevalent in narcotics users and in general, histrionic and narcissistic personality disorders (O.S.A.S., 2004).

It can be said that individuals in cluster C intend to narcotics for different reasons than the individuals in cluster B. In fact, persons in cluster B, because of illegal behavior and persons in cluster C, due to their low self-esteem, self-dependency and self-sufficiency and also inferiority in social relationship are drawn to narcotics consumption.

Other enquiries have shown that personality characteristics including reclusiveness, being antisocial, sensitive and anxious, irresponsibility, poor social adjustment and empathy are correlated with risky behaviors as a way to overcome one's negative moods and feelings (Abdollahzade, 2007). Most surveys have concluded that behaviors like risky sexual relations and shared injections are associated with the above-mentioned characteristics. Trobst, Herbst, and Costa (2002) have argued that risky behaviors are in fact, one's attempts to reduce anxiety levels, obtain transitory tranquility and pain relief resulted from negative emotions, and to tackle negative feelings. These results suggest that most people who drink alcohol too much or use drugs like cocaine, marijuana, heroin and

other narcotics suffer from anxiety, isolation and loneliness (Rostami and Haddadi, 2008).

Some studies have proved that heroin users are more impulsive and aggressive than cocaine users (Donavaon, Saltz, Kelley, and Penk, 1998; Mc'Cromic, Dowd, 1998) while others have expressed no significant difference in characteristic traits between cocaine and heroin (Craig, 1999 a) or cannabis abusers (Green, Adyntaya, Morse, and Davis, 1993). Research consistently has provided the evidence of higher impulsivity and emotional instability in multi-drug abusers (Conway, Kane, Ball, Poling, and Rounsaville, 2003).

Research on addicts by means of different tests have signified that addicts to narcotics derivatives share characteristics including irresponsibility, snobbishness, and ignorance to others and suffer from personality disorders, specially antisocial and histrionic disorders (Ameri, 2001). Women who abuse more than one type of drugs are more open to borderline personality disorders while men are more prone to antisocial ones (Conway, Singer, Tagini, 2004).

Recent studies have concentrated on personality disordesr test on young-age drug users. Armstrong and Costello (2002) found out that sixty percent of young drug users, drug abusers and drug dependents showed co-morbidity, the most common of which were conduct disorder and disobedience disorder. Serman et al., (quoted in O.S.A.S, 2004) reported that teenagers with personality disorders drunk more alcohol than those with no personality disorders. Teenagers with three personality disorders had more alcohol drinking and those with antisocial personality disorder showed more alcohol drinking and cigarette and drug consumption. In general, personality disorders usually accompany drug consumption disorders.

Applying MCMI–III, Craug (2004) focused on the range of personality disorders in 443 drug dependants (160 opium users and 283 cocaine users). In both groups, antisocial (60%), aggressive-passive (34%) and depressive personality disorders (32%) were the most prevalent disorders.

Previous studies (N=13) through applying other assessment tools (including *SCID, SDIP, MCMI-I*) showed similar findings in the prevalence of certain personality disorders in general.

In conclusion, the results of the present research match with previous ones in terms of personality disorders and types of drugs used. In stimulant users, antisocial and borderline personality disorders, in alcohol and narcotics users avoidant, dependant, schizoid and borderline disorders (O.S.A.S, 2004) and in general, histrionic and narcissistic personality disorders are prevalent. According to Craug (2004), Compton et al. (1998), and Conway et al. (2004), in each of the above-mentioned group, the prevalence of antisocial personality disorder is significant. Armstrong and Costello (2002) acknowledged this finding in teenagers. Previous surveys have proved that heroin users are more impulsive and aggressive than cocaine users. Studies have shown that personality characteristics including reclusiveness, being antisocial, sensitive and anxious, irresponsibility, poor social adjustment and empathy are correlated with risky behaviors as a way to overcome one's negative moods and feelings (Cooper et al, quoted in Abdollah Zade, 2007). In this research also, narcotic consumption, comparing with stimulant consumption, accompanied more with disorders. Finally, this conclusion could be drawn that self-medication effects of narcotics, due to their pain relieving and anxiety-reducing characteristics, can cover more disorders while stimulants have more limited self-medicating effects.

Limitations and Suggestions

- The current study has been conducted on addict men in Tehran and cannot be generalized on women or addicts of other cities.
- This study has been about the population between 18 to 45 years old and cannon be generalized on teenagers or elderly.
- Due to limitation of research time, manpower and budget, this research sample size is small.

- It can be conducted on women, teenagers, and population in other cities.
- Extensive research may include their family members' personality traits and culture.

References

Abdollah Zadeh, B. (2007). *Comparing Personality Factors, Problem-solving Methods and the experienced Stress rate in Addicts and Normal persons. M. A. Dissertation*, Tabriz University.

Ameri, K. (2001). *Examining Personality Characteristics in Cloninger Systems in Two Groups of Addicts and Non-addicts. M. A. Dissertation*, Tarbiat Modarres University.

American Psychiatric Association (1980). *Diagnostic and Statistical Manual of Mental Disorders* (Third Edition). Washington, DC: American Psychiatric Association.

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders* (fourth Edition). Washington, DC: American Psychiatric Association.

Armstrong, T. D., & Costello, E. J. (2002). Community studies on adolescent substance use, abuse, or dependence and psychiatric co-morbidity. *Journal of Consulting and Clinical Psychology*, 70, 1224–1239.

Centre for Substance Abuse Treatment (CSAT) (1994). Chapter 4–Personality Disorders. In Assessment and Treatment of Patients with Coexisting Mental Illness and Alcohol and Other Drug Abuse. *Treatment Impairment Protocol* (TIP) Series 9. Rockville MD.

Compton, W. M., Cottler, L. B., Spitznagel, E. L., Abdallah, A. B., & Gallagher, T. (1998). Cocaine users with antisocial personality improver risk behaviors as much as those without antisocial personality. *Drug and Alcohol Dependence*, 49, 239 - 247.

Conway, K. P., Swenden,J. D., Rounsaville, B. J., & Ries, K. M., (2002). Personality, drug of choice and co-morbid psychopathology among substance abusers, *Drug and Alcohol Dependence*. 65, 225-234.

Conway, K. P., Kane, R. J., Ball, S. A., Poling, J., & Rounsaville, B. j. (2003). Personality, substance of choice, and poly-substance involvement among substance dependent patients. *Drug and Alcohol Dependence*. 71, 65 - 75.

Craig, R. J. (1999 a). Overview and current status of Millon Clinical Multiaxial Inventory. *Journal of Personality Assessment*, 72(3), 390 - 406.

Craug, R. J. (2004). Prevalence_of Personality Disorders among Cocaine and Heroin Addicts, *Journal of Substance Abuse*. 21,134 - 145.

DeJong, C. J., Van den Brink, W., Harteveld F. M., & Van der Wielen E. M. (1993). Personality disorders in alcoholics and drug addicts. *Comprehensive Psychiatry*, 34, 87–94.

Donavon, J., Soldz, S., Kelley, H., & Penk, W. (1998). Four addictions: the MMPI and discriminate function analysis. *Journal of Addiction Disease*, 17, 41 - 55.

Echeburau, E., Bravo, R., & Medina, J. (2005). Alcoholism and personality disorders: An exploratory study. *Alcohol and Alcoholism*, 40, 323-326.

Falck, R. S., Wang, J., Siegal, H. A., & Carlson, R. (2004). The prevalence of psychiatric disorders among a community sample of crack cocaine users, *Journal of Mental Disease*, 192,503-507.

Ford, J., Gelernter, J., De Voe, J. S., Zhang, W., Weiss, R. D., Brady, K., & Farrer, L. (2009). Association of psychiatric and substance use disorder co-morbidity with cocaine dependence severity and treatment utilization in cocaine–dependent individuals, *Drug and Alcohol Dependence*, 99, 193- 203.

Grana, Munoz, & Navas (2009). Normal and pathological personality characteristics in subtypes of drug addicts undergoing treatment, *Personality and Individual Differences*, 49, 418-423.

Green, L., Adyanthaya, A., Morse, R., & Davis, j. (1993). Personality variables in cocaine and marijuana dependent patients, *Journal of Personality Assessment*, 61, 224 - 230.

Hesse, M., & Pedersen, M. K. (2008). Protocol: Personality assessment as a support for referral and case work in treatment for substance use disorder. *BMC Psychiatry*. 10, 118-125.

Khajeh Mogahi, N. (1993). Introductory Preparation of Millon-II Farsi Questionnaire in Tehran. *M.A Dissertation*. Ravn Pezeshki Anistitu of Tehran Publication [In Persian].

Khantzian, E. J., Treece, C. (1985). DSM - III psychiatric diagnosis of narcotic addicts: recent findings. *Archive of General Psychiatry*; 42: 1067–1071

Martin, A. Conway, Jefferson, A., & Singer, A. T. (2004). The Self and Autobiographical Memory: Correspondence and Coherence. Social Cognition: Autobiographical Memory. *Theoretical Applications*, 22, 491-529.

Mc'Cormic, R. A., & Dowd, E. R. (1998). The relationship of NEO-PI performance to coping styles, pattern of use & triggers for use among substance abusers. *Journal of Addictive Behavior*, 23,497 - 507.

Millon, T. (1983b). *Modern psychopathology*, Prospect Heights, IL: Waveland. (Original work published 1969).

Millon, T. (1996). *Disorders of personality* (2 nd ed.). New York: Wiley.

Nace, E. P., Davis, C. W., Gaspari, J. P. (1991). Axis II co morbidity in substance abusers, *American Journal of Psychiatry*; 148:118–120

O'Boyle, M. (1993). DSM - III - R and Eysenck personality measures among patients in substance program. *Personality and Individual Differences*, 18 - 561 - 565.

Office of Substance Abuse Service (O.S.A.S.), (2004). *Substance Use and Personality Disorders*, Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services.

Oleboen, P. B. (2004). Personality profile and drug choice, *Journal of Drug and Alcohol Dependent*, 31,175-182.

Robbins, P. R. (1992). Depression and drug addiction, *Psychiatric Quarterly*, 48: 325 - 348.

Rostami, R. & Hddadi, P. (2008). *Practical Instruction of maintenance treatment with Methadone*. Tehran. Tabalvor Publication.

San Narciso, G. I., Gutierrez, E., Saiz, P. A., Gonzalez, M. P., & Bascaran, M. (2009). Assessment of personality disorders in heroin addicts using the international personality disorders examination (IPDE). *Addiction*, 12, 43-56.

Sharifi, A. A., Molavi, H., & Namdari, K. (2007). Diagnostic validity of Millon Clinical Multi-axial Inventory-III, *Science and Research in Psychology*, 34, 27-38.

Sharifi, A. A. (2002). Normalization of Millon Clinical Multiaxial Inventory–III in Isfahan, *M. A. Dissertation*, Isfahan University.

Sharifi, A., & Karami, A. (2007). *Millon-III Instruction*. Tehran, Ravānsanji Publication [In Persian].

Trobst, K. K., Herbst, J. H., & Costa, P. T. (2002). Personality pathways to unsafe sex: personality, condom use and HIV risk behaviors, *Journal of Research in Personality*, 36, 117 - 133.

Verheul, R. (2001). Co-morbidity of personality disorders in individuals with substance use disorders. *European Psychiatry*. 16, 274-282.

Received: 7 / 8/ 2012
Revised : 28/ 4/ 2013
Accepted: 1 / 5/ 2013