

Frequency of Obsessive-Compulsive Disorder in Methamphetamine-Dependent Subjects

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Abstract

Background and Objectives: Obsessive-compulsive disorder (OCD) is a type of anxiety disorder, which can be manifested as comorbidity with other psychological disorders. Prompt diagnosis and treatment of this comorbidity plays an important role in treatment of the main disorder. This study aimed to assess the frequency of OCD in methamphetamine-dependent individuals.

Patients and Methods: This descriptive, cross-sectional study was conducted on 140 methamphetamine-dependent individuals presenting to outpatient addiction treatment centers in Tehran. The participants only had methamphetamine dependence and were not addicted to any other substance. Initial examination was carried out by a psychiatrist to rule out other conditions. To assess OCD, Persian-version of Yale-Brown questionnaire was used. The cut-off point used for the questionnaire in this study was 9. In addition to the severity of obsession, type of obsession was determined as well.

Results: The mean age of patients was 32.2 ± 7.8 years and the mean duration of methamphetamine dependence was 8.9 years; 26.1% were married and 72.9% were single or divorced; 27.1% had academic education. The frequency of OCD was 33% and miscellaneous and aggressive types of obsession had the highest frequency.

Conclusions: The observation that one third of methamphetamine dependent patients suffer from OCD suggest existence of a correlation. More detailed understanding of such correlation can enable efficient treatment and favorable prognosis of the disease. Our study, hence, encourage further investigation of the issue to draw a more definite conclusion.

Keywords: Obsessive-compulsive disorder, Addiction, Methamphetamine, YBOCS

Background and Objectives

Addiction is a public health dilemma affecting different aspects of life. Addictive substances are diverse and have variable clinical and withdrawal signs and symptoms. Addicts often suffer from psychological disorders in addition to their substance abuse and dependence. Due to having shared neural pathways in the brain, obsessive-compulsive disorder (OCD) may have comorbidity with addiction.¹ According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) criteria, OCD is a type of anxiety disorder² characterized by obsession and compulsion. Obsession refers to unwanted beliefs, thoughts, urges, or images that suddenly come into mind and cause anxiety or discomfort. Compulsion refers to repetitive be-

haviors to suppress anxiety. For instance, the patient may think that his hands are dirty and washes them over and over again. The prevalence of OCD is 2%-3% in the general population.³ Evidence shows that the frequency of OCD is 6%-12% among substance abusers.⁴

Blom et al showed a significant association between obsession and addiction, and this correlation was more prominent in males.⁵ The prevalence of OCD seems to be variable among drug addicts depending on the abused substance. Compton et al evaluated patients addicted to tranquilizers and reported the frequency of OCD to be 3%.⁶ However, 2 studies conducted on patients under methadone maintenance treatment showed that the frequency of OCD was 40.1%.⁷ Methamphetamine is an industrial substance and addiction to it is common. On the other hand, diagnosis and treatment of OCD comorbidity with addiction can affect the prognosis of addiction treatment.⁸ This study aimed to assess the demographic char-

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acteristics of methamphetamine users and the frequency of OCD in them.

Methods

This descriptive, cross-sectional study was conducted on 140 methamphetamine-dependent individuals presenting to outpatient addiction treatment centers in Tehran. All participants were males and had no dependence on any substance except for methamphetamine. The participants were not in the abstinence or intoxication period and had no history of tic, Tourette or head trauma. Prior to the inclusion in the study, they were examined to ensure absence of other psychological disorders such as schizophrenia, Huntington disease or dementia. The subjects enrolled in the study had quit methamphetamine use and had regular visits to the treatment center only to remain in the drug free phase. The subjects were examined by a psychiatrist to rule out other conditions. The Persian version of Yale-Brown questionnaire was used for assessment of OCD. This questionnaire was designed by Wayne Goodman in 1980 and has 10 five-choice questions. In terms of the severity of obsession, scores of < 9 were considered as subclinical, 10-13 as mild, 14-22 as moderate, 23-28 as severe, and scores > 29 as extreme. The cut-off point of 9 was selected according to a study by Rajezi Esfahani et al.⁹ In addition to determining the severity of obsession, the participants were provided with a checklist including 37 types of obsession and 21 types of compulsion to determine the type and frequency of obsession. The reliability and validity of this questionnaire have been previously confirmed.^{10,11} The reliability and validity of the Persian version of this questionnaire have also been confirmed for use among the Iranian population.¹² The participants filled out the questionnaire voluntarily. For the illiterate participants and those with elementary education, the questions were read by one of the researchers and answers of the patient were recorded.

Ethical Issues

The study was approved by the Ethical Committee of Shahid Beheshti University of Medical Sciences. Before answering the questionnaires, the patients were briefed about the study objectives and signed written informed consent forms.

Statistical Analysis

Using SPSS version 21 software package, the quantitative variables, including range of changes, mean values, standard deviations and *P* values were calculated. Analyses were performed in duplicate. *P* ≤ .05 was considered as statistically significant.

Results

In this study, 140 methamphetamine-dependent males with a mean age of 32.2 ± 7.8 years were evaluated. The mean duration of methamphetamine dependence was 8.9 years. The marital status and level of education of the participants is presented in Table 1.

While 46 (33%) of the methamphetamine-dependent OCD, 14 (10%) had first degree relatives suffering from OCD. The severity of OCD in participants is shown in Table 2.

Miscellaneous and aggressive types of obsession showed the highest frequency in the sample.

Discussion

The results of this study showed that 33% of methamphetamine-dependent participants had OCD comorbidity. No similar study was found in the search of the previously published literature to compare our results with. However, Semple et al¹³ reported the frequency of OCD to be 26.1% in methamphetamine-dependent participants, which was lower than our obtained value. Semple et al reported the most common type of obsession to be the washing type, which is a different result from ours. One reason for discrepancy may be that they used obsessive-compulsive inventory revised (OCI-R) questionnaire, which is a different data collection tool from the Yale-Brown questionnaire used in the present study.

The mean age of participants in our study was 32.2 years, which is similar to the results of studies by Seyed Javadi et al and Shakeri et al, on an Iranian population.^{14,15} In terms of level of education, 27.1% of participants in our study had academic education, which is in agreement with the results of Eslami-Shahrbabaki et al.¹⁶

In general, it seems that use of stimulants such as methamphetamine has a significant association with OCD. Sharifi et al showed that the maximum abstinence period in addicts presenting to addiction treatment centers was six months.¹⁷ It means that addicts frequently quit and then start using again after a while. This behavior and inability

Table 1. Marital Satus and Level of Education of the Participants (n = 140)

Variable	No.	%
Marital status		
Married	38	26.1
Single	82	58.6
Divorced	20	14.3
Education level		
High-school diploma or lower	102	72.9
Academic education	38	28.1

Table 2. Severity of OCD in Methamphetamine-Dependent Participants

Severity of OCD	Subclinical	Mild	Moderate	Severe	Extreme
Percentage	68.1%	12.5%	12.5%	2.8%	4.2%

Abbreviation: OCD, Obsessive-compulsive disorder.

to successfully quit dependence may be related to OCD. Future studies are required on a larger sample size and with a control group to find more accurate results in this respect.

Conclusions

The high frequency of OCD among methamphetamine-dependent patients support hypothesis of correlation between two. More detailed understanding of such correlation would enable efficient treatment and favorable prognosis of the disease. Drawing a more definite conclusion in this respect requires further investigations.

Abbreviations

(OCD): Obsessive-compulsive disorder.

Authors' Contributions

AFN designed the study and contributed to analyzing the data and drafting and revising the manuscript. JS and BF took part in data analysis and revising the manuscript. LF authors read and approved the final manuscript.

Competing Interests

The authors declare no competing interests.

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References

- Lubman DI, Yücel M, Pantelis C. Addiction, a condition of compulsive behaviour? Neuroimaging and neuropsychological evidence of inhibitory dysregulation. *Addiction*. 2004;99(12):1491-1502.
- Sadoch B, Sadoch V, Ruiz P. *Comprehensive Textbook of Psychiatry*. Philadelphia: Lippincott Williams & Wilkins; 2009.
- Sadock V. *Synopsis of Psychiatry Behavioral Sciences/Clinical Psychiatry*. Trans by Rafiei H, Sobhaniyan KH. Philadelphia: Lippincott Williams & Wilkins; 2007.
- Mancebo MC, Grant JE, Pinto A, Eisen JL, Rasmussen SA. Substance use disorders in an obsessive compulsive disorder clinical sample. *J Anxiety Disord*. 2009;23(4):429-435. doi: 10.1016/j.janxdis.2008.08.008
- Blom RM, Koeter M, van den Brink W, de Graaf R, ten Have M, Denys D. Co-occurrence of obsessive-compulsive disorder and substance use disorder in the general population. *Addiction*. 2011;106(12):2178-2185. doi: 10.1111/j.1360-0443.2011.03559.x.
- Compton WM, Cottler LB, Ben Abdallah A, Phelps DL, Spitznagel EL, Horton JC. Substance dependence and other psychiatric disorders among drug dependent subjects: race and gender correlates. *Am J Addict*. 2000;9(2):113-125.
- Peles E, Adelson M, Schreiber S. Association of OCD with a history of traumatic events among patients in methadone maintenance treatment. *CNS Spectr*. 2009;14(10):547-554.
- Regier DA, Farmer ME, Rae DS, et al. Comorbidity of mental disorders with alcohol and other drug abuse: results from the Epidemiologic Catchment Area (ECA) study. *JAMA*. 1990;264(19):2511-2518.
- Rajezi Esfahani S, Motaghipour Y, Kamkari K, Zahiredin A, Janbozorgi M. Reliability and Validity of the Persian version of the Yale-Brown Obsessive-Compulsive scale (Y-BOCS). *Iran J Psychiatry Clin Psychol*. 2012;17(4):297-303.
- Goodman WK, Price LH, Rasmussen SA, et al. The yale-brown obsessive compulsive scale: II. Validity. *Arch Gen Psychiatry*. 1989;46(11):1012-1016.
- Goodman WK, Price LH, Rasmussen SA, et al. The Yale-Brown obsessive compulsive scale: I. Development, use, and reliability. *Arch Gen Psychiatry*. 1989;46(11):1006-1011.
- Mehdi R, Mehrdad K, Kariem A, Fatemeh B. Factor structure analysis, validity and reliability of the health anxiety inventory-short form. *J Depress Anxiety*. 2013;2(1):44-50. doi:10.4172/2167-1044.1000125
- Semple SJ, Strathdee SA, Zians J, McQuaid J, Patterson TL. Correlates of obsessive-compulsive disorder in a sample of HIV-positive, methamphetamine-using men who have sex with men. *AIDS Behav*. 2011;15(6):1153-1160. doi:10.1007/s10461-010-9719-7.
- Seyed Javadi M, Seyed Mousavi E, Mohammadi R, Ebrahimi F, Seyed Javadi M. Epidemiology of drug abuse in self introduced addicts to addiction treatment clinic in Ardabil in 2012. *Proceeding of the 7th National Congress*

- on Addiction Science; Tehran, Iran; 2013.
15. Shakeri J, Farnia V, Karimi AR, et al. The prevalence and clinical features of amphetamine-induced obsessive compulsive disorder. *Drug and alcohol dependence*. 2016;160:157-162. doi:10.1016/j.drugalcdep.2015.12.034.
 16. Eslami-Shahrbabaki M, Fekrat A, Mazhari S. A study of the prevalence of psychiatric disorders in patients with methamphetamine-induced psychosis. *Addiction Health*. 2015;7(1-2):37.
 17. Sharifi H, Kharaghani R, Sigari S, Emami H, Sadr M, Masjedi M. Common methods to treat addiction in treatment-rehabilitation centers in Tehran. *Iran J Public Health*. 2012;41(4):63.

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