Mental Health Status: A Cross Sectional Study among Male Addicts in the West of Iran

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Abstract: Substance abuse can be a predictor of mental health problems and reduce individual's quality of life and the increasing trend of comorbidity of drug addiction and mental disorders has been reported. The aim of this study was to determine the prevalence of mental disorders among Iranian male addict. This cross-sectional study conducted in 250 male addicts who were referred to Methadone Maintenance Treatment (MMT) centers in Kermanshah, the West of Iran. Participants were randomly selected to participate voluntarily in the study and filled out a standard questionnaire. Data were analyzed by SPSS Version 21 using bivariate correlations, Chi-square and t-test at 95% significant level. The mean general health of respondents was 35.66 [95% CI: 33.46, 37.87], ranged from 12-65. In addition, based on GHQ-28 questioner about 78.1% of respondents were suspected of mental disorders. Furthermore, our findings indicated was a significant relationship between mental disorders with education, marital status, economic status and initiation age for drug use (p<0.05). Our findings indicate a high prevalence of mental disorders among Iranian drug addict and show the necessity of psychological interventions for these individuals.

Key words: Mental disorders, addict, predictor, comorbidity, Iran

INTRODUCTION

Drug addiction is basically a neurological damage which impacts human neurological changes and the addict will have mandatory use of drugs which in turn results in different physical and legal consequences (Mousaviraja *et al.*, 2014; Farnia *et al.*, 2014; Jouibari *et al.*, 2014). The individual effects of drug addiction is not completely known however, the results of extensive studies on this subject indicate that addiction can result in disorders in different body organs such as skeletal muscles and bones, digestive system, cardiovascular system and the lungs, impact the performance of the kidneys, liver and endocrine glands, create neurological disorders such as stroke, impaired decision making, memory impairment, seizure and impaired attention and concentration and also has effects on the natural growth (in adolescents), affliction with different types of cancer and transmittable infections through blood such as AIDS and hepatitis B and C

(Darke *et al.*, 2006; Ahmadpanah *et al.*, 2013; Tong *et al.*, 2004; Jalilian *et al.*, 2014). In addition, substance abuse can be a predictor of mental health problems and reduce individual's quality of life (Ataee *et al.*, 2014; Karami *et al.*, 2014). In addition, the increasing trend of comorbidity of drug addiction and mental disorders has been reported (Alba *et al.*, 2004; Hickie *et al.*, 2001; Nunes and Levin, 2004). According to studies about 50 percent of Americans have comorbidity of mental disorder and addiction (Kosten and Rounsaville, 1986). In the studies conducted in Netherland too primary and secondary mental disorders in the drug addicts was higher than the general population and depression, anxiety and antisocial personality disorder were observed more than other disorders (Tobin and Latkin, 2003). According to one study 80% of homeless individuals have mental disorder or addiction or a criminal history (Saatcioglu *et al.*, 2008). In different reports in Iran too substance abuse was accompanied by high prevalence of psychiatric disorder

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(Ahmadvand *et al.*, 2006). The high rate of comorbidity between depression and drug addiction in addition to creating serious damage to the individual such as lowering life quality and creating multiple problems for quitting in addicts, results in a huge economic and social burden to the society, the first one of which is the suicide of young addicts. Now a days one-fourth of deaths are attributed to substance abuse and according to the published reports individuals at higher risks of suicide are addicts, homeless individuals and individuals with mental problem in a way that the highest rate of death is related to the addicts with mental problems who have committed suicide (Nordentoft, 2007). On the other hand, different studies have pointed out the necessity of conducting epidemiological studies for knowing the problem and preventive programs (Jalilian *et al.*, 2015a, b).

Considering the importance of the problem and the lack of information on the subject in the western Iran, the present study was conducted with the aim of determining the status of mental health and the related background factors in addicts visiting Methadone Maintenance Treatment (MMT) centers in the city Kermanshah.

MATERIALS AND METHODS

Participants and procedure: The research was part of a project conducted in male addicts who were referred to Methadone Maintenance Treatment (MMT) centers in Kermanshah, the west of Iran. Two hundred and one (81%) participants out of 250 subjects signed the consent form and voluntarily agreed to participate in the study.

Participants were given the self-report questionnaire and for volunteers who reported literate education, the required information was collected through conducting an interview. This study has been approved by the Institutional Review Board at the Abadan School of Medical Sciences, Abadan, Iran (IR.ABADAN UMS.REC.1395.69).

Questionnaire: Questionnaire included three sections that comprised of 35 questions: 6 questions for demographic factors, 28 questions about mental health and one questions about relapse.

Demographics: Background variables 6 questions including: age (years), age at which the subject started drug abuse (years), education (under diploma, diploma, academic), marital status (married, single, living separately, divorced), occupational status (unemployed, self-employed, worker, farmer, civil servant, driver, retired, others) and economic status (independent, dependent).

General Health Questioner 28 (GHQ-28): The GHQ-28 was developed by Goldberg in 1978. GHQ-28 including four subscales including, somatic symptoms (items 1-7); anxiety/insomnia (items 8-14); social dysfunction (items 15-21) and depression (items 22-28). The GHQ is a screening device for identifying minor psychiatric disorders in the general population (Malakouti *et al.*, 2007; Taghavi, 2002). The reliability coefficient for the GHQ-28 in our study was 0.75.

Relapse questionnaire: To assess whether or not the participants had experimented relapse, we used one questions "Have you ever drug use (relapse) in the last six month" which the response category was yes or no.

Statistical analysis: Data were analyzed by SPSS version 21 using appropriate statistical tests, including bivariate correlations, Chi-square and t-test at 95% significant level.

RESULTS AND DISCUSSION

The mean age of respondents was 31.20 years [95% CI: 30.18, 32.23], ranged from 19-50 years. More details of demographic characteristics of the participants are shown in Table 1. Furthermore, 50.7 (102/201) of participants was reported had relapse in the past 6 month. In addition, the mean general health of respondents was 35.66 [95% CI: 33.46, 37.87], ranged from 12-65. Finally, based on GHQ-28 questioner about 78.1% of respondents were suspected of mental disorders.

Table 1 shows mean, standard deviation and bivariate correlations between the subscales general health questioner which were statistically significant at either 0.01 level. The relationship between socio demographic variables and mental disorders was showed in Table 2 and 3.

The findings of the present study indicated that 78.1% of the participants were suspected of mental disorders; these findings are consistent with the findings of similar studies. For example, in the study conducted by Sahebi on the mental health condition of the addicts to injective substance in East Azarbaijan Province it was found that 78.4% of the addicts had DIC and 90% of the addicts in Razi Hospital had symptoms of mental disorder (Sahebi *et al.*, 2010). In the studies conducted on addicts in US and Australia the prevalence of mental disorders has been reported being 72 and 69.2, respectively (Alba *et al.*, 2004; Hickie *et al.*, 2001). Some studies have shown that most of substance abusers have some psychological problems such as stress, anxiety, major depression, generalized anxiety disorder and antisocial

Table 1: Distribution of the demographic characteristics among the participants

Variables	Number	Percent
Age group (year)		
20-29	97	48.3
30-39	74	36.8
40-50	30	14.9
Education level		
Illiterate	16	8
Primary school (5 grades)	46	22.9
Secondary school (8 grades)	79	39.3
Diploma (12 grades)	43	21.4
Academic	17	8.5
Marital status		
Married	96	47.8
Single	75	37.3
Divorced	30	14.9
Economic status		
Independent	62	30.8
Dependent	139	69.2

Table 2: Bivariate correlations between the subscales general health questioner among the participants

	Mean (SD)	X^1	X^2	X^3
X^1: somatic symptoms	7.62 (4.16)	1		
X^2: anxiety	9.54 (3.97)	0.642**	1	
X^3: social dysfunction	9.36 (4.60)	0.606**	0.705**	1
X^4: depression	9.13 (5.93)	0.440**	0.598**	0.758**

**Correlation is significant at the 0.01 level (2-tailed)

Table 3: Demographic characteristics influencing on mental disorders

	Mental disorders			
Variables	No Mean (SD) (%)	Yes Mean (SD) (%)	t-values	p-values
Age	32.59 (9.59)	30.82 (6.57)	1.154	0.253
Initiation age for drug use	16.15 (2.98)	14.55 (3.44)	2.809	0.005
Education level				
Illiterate	2 (12.5)	14 (87.5)	10.770	0.029
Primary school	5 (10.9)	41 (89.1)		
Secondary school	18 (22.8)	61 (77.2)		
Diploma	11 (25.6)	32 (74.4)		
Academic education	8 (47.1)	9 (52.9)		
Marital status				
Married	28 (29.2%)	68 (70.8)	6.364	0.042
Single	13 (17.3)	62 (82.7)		
Divorced	3 (10)	27 (90)		
Economic status				
Dependent	19 (13.7)	120 (86.3)	17.814	0.001
Independent	25 (40.3)	37 (59.7)		

personality disorder (Marsiglia *et al.*, 2005). Considering the consequences of mental disorders, these findings can be alarming to the health system of any country and the necessity for implementation of preventive intervention and reduction of mental disorders in addicts is felt.

The general health mean score in the present study was 35.66. Also, the findings of the present study indicated that the most prevalent disorder in the explored samples were anxiety, social dysfunction, depression and in some similar studies, among different mental disorders, depression and anxiety had the highest level of relation with substance abuse (Hartgers *et al.*, 1992; Patton *et al.*, 2002).

According to Lundgren some of these disorders occur due to continuous and excessive use of drugs and in fact prevention of addiction at any stage will be effective in prevention of these damages (Mousaviraja *et al.*, 2014). When the addict's body does not receive the drug mental instability symptoms appear, in addiction to physical symptoms. Maybe the significant characteristic of this state is individual's aggressiveness, impulsiveness and impaired interpersonal relationships. Anxiety and depression are also among the main recognized consequences of drug dependence and they result in a chain of other disorders themselves. Considering these points, it should be said that basically mental dependence precedes the effect of addiction on the body. In addition, it seems that some other major factors that result in the inclination of individual towards addiction are stress, running away from stress and resorting to drugs and thus, stress and anxiety can be factors involved in the individual's inclination towards addiction. Therefore, high levels of stress and anxiety disrupt the individual's mental balance and lead to different mental disorders. Therefore, the probability of worse mental condition in addicts, compared to the general population, is high as there are high levels of stress and anxiety in their lives.

A significant statistical relationship was found between the level of education and mental disorders in the present study and this is not consistent with the results of the study by Sahebi *et al.* (2010). In this regard, some studies have pointed out that low level of education results in inclination towards drugs due to the low level of opportunities and learning chances (Powell, 2000; Abbasi *et al.*, 2005). It should be pointed out that substance abuse and lack of proper education can be the cause and effect of each other.

The findings of the present study also indicated that there is a significant statistical relationship between mental disorders and economic condition and mental disorders were seen more in individuals who were economically dependent on others. In addition, our findings indicated significant statistical relationship between marital status and mental disorders was observed. The single and the divorced individuals were more at the risk of mental disorders. This result was consistent with the result of the study by Sahebi *et al.* (2010). In this regards other studies showed that family support is important factor that impacts the life quality among addict (Jalilian *et al.*, 2014) and married individuals have probably more support and this can be a protection against problems and consequently improve their mental health.

Finally, the findings showed that mental disorders in addicts did not have a significant

statistical relationship with age. However, a significant statistical relationship between the age of onset of addiction and mental disorders was seen. More mental disorders were seen in individuals who had started substance abuse at a lower age. The low onset age for addiction can be related to puberty, identity crisis and mental and psychological conditions of adolescents and young adults (Jouibari *et al.*, 2014). Therefore, implementing interventions for prevention of addiction at lower ages can have more useful outcomes for the society.

CONCLUSION

The findings of the present study indicate a high prevalence of mental disorders in drug addict and show the necessity of psychological interventions for these individuals. In addition, the findings indicated that the prevalence of mental disorders has a significant statistical relationship with the lower age of onset of addiction, being single, lower education level and being economically dependent. These findings can be considered in designing interventions for reduction of damage.

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