Comparison of Personality Factors among People with Substance Dependence Disorder and non-addicted People

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Abstract

Prescription of drug abuse is an important and significant world issue. This study aims to compare sixteen personality factors among patients with substance abuse disorder and normal people. The research method was ex post facto and statistical population consisted of two groups of addicted individuals and normal individuals in Tehran. 100 addicted patients were selected by convenient sampling method among patients who had referred to addiction treatment centers in Tehran. The control group with 100 people was selected from normal people. Research instruments included Cattell's Sixteen Personality Factor Inventory (16PF) and the collected data was analyzed using ANOVA. Findings revealed that there are significant differences in factor A, factor C, factor E, factor F, factor G, factor H, factor I, factor L, factor M, factor N, factor O, factor Q1, factor Q2, factor Q3, and factor Q4 among addicted and healthy groups. It is concluded that an awareness of the effects of personality factors on substance abuse can help to decrease, or even prevent, addiction disorder.

Keywords: addiction, personality factors, substance dependence disorder

Introduction

Addiction is a chronic brain disease that causes compulsive substance use despite harmful consequences. Health, financial conditions, relationships, and careers can be ruined by this disease. Drug abuse is by far the leading cause of preventable illnesses and premature death in our society. Whether it involves abuse of prescribed or illegal drugs, addiction can be a scary problem to face. It can also be complicated; symptoms of addiction vary widely from person to person and determining the right treatment plan for each person can be tough.

There has lately been renewed interest in how personality can affect health (Smith & Gallo, 2001). Personality factors have received attention through this (Shadel, 2004). The research about the correlation of personality factors with substance use indicates a fierce image of drug abusers.

Dependence on substances does not occur suddenly, but it is most related to different periods of life (Ozer & Benet-Martinez, 2006). Therefore, it is necessary for researchers to explain desirable behaviors in substance abusers instead of incidence and prevalence of drug dependence, and address more seriously the issue why some people have drug dependence and some others do not show this tendency in their lifetime (Luthar, 1997).

Differences in personality factors of addiction can be the underlying factor determining different types of motivations and vulnerabilities for engaging in substance abuse. Determining the motives for various personality types can facilitate understanding the role of different types of drug dependence and psychological addictions (Blatt, 1984).

From a psychological perspective, drug-dependent individuals are vulnerable and there is a relationship between their substance dependence and personality factors (Feldstein & Miller, 2006). It can be concluded that drug-dependent patients have biological, psychological, and social needs that are different from those of normal people (Brad, 2004). Studies suggest that personality factors have a prominent role as risk factors and modulators in initiation of drug use, and can predict the risk of substance abuse and even the type of the substance to be chosen by the individual (Cooper et al., 2003; Conway et al., 2002).

Many studies have shown a relationship between personality factors and drug dependence (Bakhshipour et al., 2008; Arji et al., 2008; Ashoori et al., 2009; Saber et al., 2011). It seems that certain personality factors act as risk factors, intermediaries, or result of formation, progression, and outcome of substance dependence disorders (Arab et al., 2012).

According to the above, certain personality factors can be of possible structures that can contribute essentially to the prediction of drug dependence as a general function, and the phenomenology, diagnosis and treatment of these disorders (Feldstein & Miller, 2006). Thus, this study attempts to investigate and compare Sixteen Personality Factors (Warmth (A), Reasoning (B), Emotional Stability (C), Dominance (E), Liveliness (F), Rule-Consciousness (G), Social Boldness (H), Sensitivity (I), Vigilance (L), Abstractedness (M), Privateness (N), Apprehension (O), Openness to Change (Q1), Self-Reliance (Q2), Perfectionism (Q3), Tension (Q4)) among patients suffering from substance abuse disorder as well as normal people.

Method

The present study is a descriptive study whose population included individuals who had referred to drug addiction treatment centers running under the supervision of Shahid Beheshti University of Medical Sciences at Tehran in 2012-2013.

In the present study by participants' selection, investigation of relationship between criterion variables; "drug dependence" with "personality

factors" was conducted without manipulation or control. On the other hand, according to comparison of variables between patients with substance abuse disorder and normal people, so this study can be included in "causal comparative.

Sampling

As based on the sample size formula, 200 patients with substance abuse disorder and normal people were chosen for this study. For comparison purposes, the study population had to be divided into two equal groups. Thus, 100 individuals were chosen from patients with substance abuse disorder and 100 individuals were chosen from normal people. Due to this condition, forming the scope of the study, all referrals to addiction centers were selected through cluster random sampling.

Inclusion criteria were as follows: aged from 18 to 60 years, lack of mental illness, lack of Diabetes, thyroid, cardiovascular disease, cancer and central nervous system diseases such as MS, etc., and at least primary school education.

Measure

Sixteen Personality Factor Questionnaire

Sixteen Personality Factor Questionnaire (16PF) is an extensive measure of normal range personality that has proved to be effective in a variety of settings where an in-depth assessment of individuals is needed. The 16PF factors (Warmth (A), Reasoning (B), Emotional Stability (C), Dominance (E), Liveliness (F), Rule-Consciousness (G), Social Boldness (H), Sensitivity (I), Vigilance (L), Abstractedness (M), Privateness (N), Apprehension (O), Openness to Change (Q1), Self-Reliance (Q2), Perfectionism (Q3), Tension (Q4)) are results of years of factor-analytic research focused on discovering basic structural elements of personality (Cattell et al., 2003).

Iranian validation by test-retest equals 0.65 in low intervals, and 0.52 in high intervals. The internal consistency (Cronbach's alpha) was calculated at 0.54 indicating that all these factors are consistent with the reliability coefficients from other researchers (Corraze, 2002). Univariate ANOVA was used for data analysis.

Results

Table 1
ANOVA's personality factors between addicts and normal people

Variable	Source of change	Sum of square	df	Mean square	F	Sig.	Effect Size	Power of view
Factor A	Between groups	278.48	1	278.48	24.13	0.001	0.10	0.99
	Within groups	2284.24	198	11.53				
	total	2562.72	199					

Variable	Source of change	Sum of square	df	Mean square	F	Sig.	Effect Size	Power of view
Factor B	Between groups	15.12	1	15.12	2.76	0.098	0.014	0.38
	Within groups	1085.03	198	5.48				
	total	1100.15	199					
Factor C	Between groups	1280.18	1	1280.18	71.77	0.001	0.266	1.00
	Within groups	3531.80	198	752.72				
	total	4811.98	199	10.55				
Factor E	Between groups	752.72	1	752.72	71.31	0.001	0.265	1.00
	Within groups	2089.76	198	10.55				
	total	2842.48	199					
Factor F	Between groups	307.52	1	307.52	19.25	0.001	0.089	0.99
	Within groups	3162.56	198	15.97				
	total	3470.08	199					
Factor G	Between groups	1682.00	1	1682.00	85.83	0.001	0.30	1.00
	Within groups	3880.00	198	16.59				
	total	5562.00	199					
Factor H	Between groups	915.92	1	915.92	49.65	0.001	0.20	1.00
	Within groups	3652.30	198	18.44				
	total	4568.22	199					
Factor I	Between groups	534.64	1	534.64	35.03	0.001	0.15	1.00
	Within groups	3021.23	198	15.25				
	total	3555.87	199					
Factor L	Between groups	184.32	1	184.32	23.56	0.001	0.10	0.99
	Within groups	1548.86	198	7.82				
	total	1733.18	199					
Factor M	Between groups	338.00	1	338.00	17.27	0.001	0.08	0.98
	Within groups	3874.00	198	19.56				
	total	4212.00	199					
Factor N	Between groups	120.12	1	120.12	9.90	0.002	0.04	0.87
	Within groups	2401.27	198	12.12				
	total	2521.39	199					
Factor O	Between groups	924.50	1	924.50	46.09	0.001	0.18	1.00
	Within groups	3971.18	198	20.056				
	total	4895.68	199					

Variable	Source of change	Sum of square	df	Mean square	F	Sig.	Effect Size	Power of view
Factor Q_1	Between groups	18.60	1	18.60	1.57	0.21	0.008	0.24
	Within groups	2340.79	198	11.82				
Factor Q_2	Between groups	120.12	1	120.12	10.17	0.002	0.049	0.88
	Within groups	2338.75	198	11.81				
	total	2458.87	199					
Factor Q_3	Between groups	626.58	1	626.58	41.61	0.001	0.17	1.00
	Within groups	2981.24	198	15.05				
	total	3607.82	199					
Factor Q_4	Between groups	714.42	1	714.42	31.11	0.001	0.13	1.00
	Within groups	4546.06	198	22.96				
	total	5260.48	199					

ANOVA showed that the difference in personality factor (B) is not significant. This means there is no significant difference in terms of intelligence between addicts and normal people. Difference in personality factors; (A), (C), (E), (F), (G), (H), (I), (L), (M), (N), (O), (Q1), (Q2), (Q3), (Q4) is significant and there is a significant difference between patients of substance abuse disorder and normal people in these factors.

Discussion

Overall, findings of this study serve as a supporting evidence for factors affecting drug dependence disorder. The basic assumption of trait approach is that human beings are of factors that respond to stimuli in certain manners. Trait theorists agree that human behavior and his personality can be organized in a hierarchy (John et al., 2008).On this basis, personality factors increase vulnerability to substance dependence disorder, which has been mentioned in all entries related to personality characteristics as factors to be taken into consideration.

In other words, a large number of addicts have had personality disorders (Economidou, 2009). However, it should be noted that although personality factors may increase the risk of substance abuse, numerous combinations of risk factors may lead to addiction.

A comprehensive understanding of etiology of substance dependence disorder is achieved as a result of personality associated with biological, social, cultural and family factors (Ball & Cecero, 2001). Large number addicts are people who have personality disorders, but it should be noted that although personality factors may increase the potential risk of drug abuse, but in fact a combination of numerous factors has led to addiction (Barnes et al., 2000).

Known factors associated with persistence of individual drug dependence include low self–esteem, poor self–control, difficult temperament, interpersonal incompetency, poor social coping skills; attitude factors such as deviant attitudes and behaviors; emotional factors such as a need for sensation seeking; and psycho-pathological factors such as stressful life events, depression and anxiety (Conway et al., 2003).

On the other hand, while some evidence would indicate effectiveness of preventive interventions in high-risk groups, many addicts never seek treatment. Identification of contributing factors and early diagnosis can help with prevention of more serious conditions such as addiction (Evren et al., 2007).

Conclusion

Activities associated with addiction treatment must be performed based on affecting factors so that the probability of success increases. Due to the importance of understanding factors that influence addiction relapse, it is recommended that study findings similar to those obtained by the current study be widely used in various socio-cultural conditions, and these findings be analyzed by meta-analysis; such studies and their obtained results can be effective in efficient management of rehabilitation programs in different communities. According to the results obtained by the present study, professionals can treat patients by a study of their personality traits.

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