Minnesota Multiphasic Personality Inventory Score in relapsed and non-relapsed addicted person

Toktam Bidaki [a]*, Aboutaleb Seadatee Shamir [b]

a Educational psychology Department, Azad University, North Khorasan science and research branch, Bojnourd, Iran
b Assistant Professor, Department of Psychology, Sciences and Researches Branch, Islamic Azad University, Tehran, Iran.

Abstract

Introduction: Addiction is a physical and mental disease, causes various societal problems, including decline in public Health, mortality, social and domestic traumas, loss of educational and occupational opportunities in all aspects of life. This study aimed at comparing relapse of addiction in the personality characteristics of addicted individuals. The present study aims to examine the relationship between personality sketches with addiction relapse in addicted people.

Materials and method: The research sample included addicted and former addicted person with addiction and no addiction relapse who referring to Raha Kish clinical center, Iran. Participants were selected using random sampling. The instrument was the Minnesota Multiphase Personality Inventory (MMPI). The hypotheses were tested using multiple analyses of variance, step by step differential analysis and between subjects effect test.

Results: Results showed that there is a meaningful difference between addicted person who relapse and those who do not relapse. Also all clinical scale could predict personality sketch but 3 in those addicted who do not have relapse.

Conclusion: Addicted person who do not have relapse outperform in personality sketch in compare with those addicted who have relapse because of lower personality trait.

*Corresponding author: Email: Ghazal.tabasom@yahoo.com

1. Introduction

Addiction, defined by Angres, Bettinardi and Angres (2008) as the continued repetition of a behavior despite adverse consequences or a neurological impairment leading to such behaviors. American Society for Addiction Medicine (2012) believes that addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors

Another main component in relation to addiction is relapse, which is in relation to drug misuse. Relapse is resuming the use of a drug or a chemical substance after one or more periods of abstinence. The term is a landmark feature of both substance dependence and substance abuse, which are learned behaviors, and is maintained by neuronal adaptations that mediate learning and processing of various motivational stimuli (Kadden, 2002). An important aspect of drug use is the propensity for repeated use and dependence, tendencies that are influenced by the nature of the drug itself and thus vary from substance to substance. Those substances that are cleared from the body most quickly, those with the highest pharmacological efficacy, and those that induce the highest tolerance elicit the most severe tendencies in users. Drug dependence can lead to increased tolerance to the substance in question, cravings, and withdrawal if the drug use ceases (Van den Oever, Spijker, Smit & De Vries, 2010).

On the basis of drug repeated use and the inability to stop using drugs, observed in the cases of the majority of addicts. Scholars have opined that drug abuse must have its roots in more chronic and robust structures that involve determinant forces on behavior (Walton & Roberts, 2004). Research has shown that personality traits are among the important causalities in the tendency toward risk-taking behaviors, including cigarette smoking, alcohol and drug use, and unprotected sexual activity (Stefansson & Hesse, 2008; Polimeni, Moore & Gruenert, 2010; Rajaeepour & Mohammadi, 2014; Nielsen, Rojskjaer & Hesse, 2007; Kopstein, Crum, Celentano & Martin, 2001; Kornor & Nordvik, 2007; Mahdian, Tanhaye Reshvanloo, Zahmatkesh & Javidi, 2014).

McCrae & Costa (1978) has defined personality traits as the dimensions of personal differences in the tendency toward displaying stable patterns of thought, impression, and action. Individual characteristics such as low self-esteem, depressed mood, and personal character affect a person's ideas and perceptions about drugs. Swendsen, Conway, Rounsaville and Merikangas (2002) reported that drug abusers, in comparison with non–drug users had higher scores for alienation and negative emotions and lower scores for control, harm avoidance, and constraint. Verheul (2001) has reported that the drug abusers have high rates of personality disorders, such as antisocial personality disorder, morbid personality disorder, avoidant personality disorder, and paranoia. Some researchers have found that extroverts have a greater tendency to drug and alcohol use (Kwapil, Miller, Zinser, Chapman, Chapman & Eckblad, 2000). In other studies, drug abusers had high scores for psychosis and neurosis on evaluation with the five factors personality inventory (Sher, Bartholow & Wood, 2000). Polimeni et al. (2010), Moore and Gruenert investigated the psychological profiles of addicts. Generally, the profile of this group is associated with high levels of temper disorder (Pd) and confused thoughts and emotions or schizophrenia (Sc). Psychological disorders were more common in women than in men, and women's scores for confusion, hypochondrias is, character disorder, and hysteria were significantly higher than the corresponding scores for men. Individuals with depression, character disorder, and paranoia and those aged less than 35years had more problems (Polimeni et al., 2010). Craig found that the MMPI profiles of heroin addicts showed high level of psychological disorders, particularly in scales of Depression (D), Psychopathic Deviate (Pd), and Schizophrenia (Sc). So, this study was conducted to investigate the relationship between personality sketches with addiction relapse in addicted people.

2. Method

The method of this research was descriptive.

Multiple analyses of variance, step by step differential analysis and between subjects effect test were employed for statistical analyses.

2.1. Participants

The study population consists of all clients who refer to Raha Kish rehabilitation center within a period of 2 month. The sample comprised 80 subjects who were selected using random sampling. Those clients who were volunteer and consent to participate in the research completed the questionnaire. According to their background they were divided in two groups. Group one include those who had relapse after withdrawal and group two comprises those who had relapse after withdrawal.

2.2 Measurement

The Minnesota Multiphasic Personality Inventory (MMPI) (containing 71 questions) was employed to assess the clients Personality. The clinical scales of the test are as follows: Hypochondria (Hs), Hysteria (Hy), Depression (D), Psychopathic Deviate (PD), Paranoia (Pa), Psychological Trauma (PT), Schizophrenia (Sc), and Mania (Ma). Internal coherence of this questionnaire by Cronbach Alpha coefficient was 0.89. The validity of the test was ascertained by correlating the scores of its micro scales with the SCL-90-R score. The coefficients of the subscales varied between 0.59and 0.78, and all the coefficients were significant at 0.01. The reliability of the main test scales was tested using split-half method that showed coefficients between 0.70 to 0.80. The reliability coefficients of the scales, obtained by using there test method, ranged from 0.50 to 0.90.

3. Results

Table 1 shows the Description statistics of observed variables.

Table1. Description statistic of MMPI test in relapse and non-relapse addicted person

MMPI Subscales	Group	Mean	SD	Minimum	Maximum
Hypochondria	relapse	11.86	1.88	3	12
	No relapse	9.5	0.44	2	14
Depression	relapse	6.36	0.33	3	13
	No relapse	4.86	0.23	4	13
Hysteria	relapse	13.86	1.31	2	14
	No relapse	9.43	0.91	3	13
Psychopathic Deviate	relapse	13.22	7.02	4	13
	No relapse	11.96	9.09	2	14
Paranoia	relapse	12.33	1.81	2	14
	No relapse	10.30	1.88	3	15
Psychological Trauma	relapse	8.29	0.48	4	13
	No relapse	6.66	0.31	2	11
Schizophrenia	relapse	12.30	1.33	3	13
	No relapse	8.14	0 .39	4	13
Mania	relapse	6.65	6.65	4	12
	No relapse	5.16	8.89	4	12

Table 1 shows mean, standard deviation, minimum and maximum score of sub variables of MMMI test between relapse and non-relapse addicted person. Accordingly mean score of relapse person in all sub variables of addicted person is higher than no relapse addicted person. Also standard deviation of relapse person is higher than those who had no relapse. Furthermore this is the case for minimum and maximum score.

Table2. Multivariable tests for the Comparison of addicted person who have and not having relapsed

Multivariable test	Effect size	Sig.	Df E	Df Q	F	P value
Pillai's Trace	0.341	0.037	152	8	3.121	0.02
Wilks' Lambda	0.341	0.037	152	8	3.121	0.59
Hotelling's Trace	0.341	0.037	152	8	3.121	0.04

Note: Sig, Df E, Df Q, F stand for significance, degree of freedom, f test

The results of table 2 demonstrated that the difference between addicted person who had relapse and those who had non-relapse is significant. So according to table 1 because addicted person who had no relapse had higher personality characteristic.

4. Discussion

The results of current research in line with some other studies have shown that the MMPI profile of relapsed and non-relapsed drug abusers is distinctive. It means than non-relapsed addicted participants outperform relapsed addicted participants in personality and psychopathological traits like Hypochondrias is, Depression, Hysteria, Psychopathic Deviate, Masculinity/Femininity, Paranoia, Psych asthenia, Schizophrenia, Hypomania, Social Introversion.

The results of the present study also support other results which suggest that the relapse in addictions happened as a result of low self-awareness of problems and vulnerabilities and high bodily symptoms, suspiciousness, sensitivity, Conflict, struggle, anger, respect for society's rules associated with worry, anxiety, tension, doubts, obsessiveness odd thinking and social alienation and excitability (Abolmaali & Barkhordari, 2014; Keramati, 2014; Ahghar, 2014). Another study has also shown that people with high scores for this scale have numerous problems related to social skills, judgment ability, and logical thinking (Polimeni et al., 2010).Previous research has also found a relationship between psychological traits which leads to relapse in addiction (Peterson, Bettes & Seligman, 1985).Some other studies also believe that Psychological characteristic and relapse is distinguished by a low self-esteem, self-concept and high level of emotional helplessness.

Another study has emphasized that relapsed addicted person reported more problems related to depression, anxiety, and self-esteem than non-relapsed addicted person (Swendsen et al., 2002).

Mainly anxiety and depression are an important part of addiction that can lead to release in those who stop using drugs, and also release can lead to more anxiety or depression.

This Findings also reveals that Relapsed addicted suffering from low self-esteem more than non-relapsed addicted that's why they turn to drugs to alleviate the feelings associated with low self-worth, Feelings of inadequacy, poor self-image and inability to cope with the demands of day-to-day life prove too much, and a means of escape is sought (Wulsin, Valliant & Wells, 1999).

Addicted life style and family support or family neglect is key point in relapse or non-relapse addicts. . The effect of neglect is a further lowering of self-esteem, self-concept, and issue for hard internal conflicts with their moral and ethical codes in addicts. So relapse addicts with low self-esteem, self-concept and family support do not value themselves, but they value other people. Typically, they will help others at their own expense because they place more value on them than they do on themselves (Wulsin, 2001).

Many people in recovery from drug and alcohol addiction relapse because not enough attention is paid to this most crucial of areas. Addicts and alcoholics who have stopped using drugs and drinking alcohol need to re-build their self-esteem and self-image as a matter of urgency if relapse is to be avoided. Counseling and or therapy can be useful in helping to identify the specific areas needing most attention, but the footwork is the responsibility of the individual. Seeing a counselor or therapist will not improve self-esteem in itself. So, personality disorders which are more common in relapsed rather than non-relapsed often cause acutely uncomfortable feelings such as overwhelming sadness, hopelessness, numbness, isolation, sleep disorders, digestive and food-related disorders (Sher

et al., 2000).

Furthermore, Because of addicts personal life-shattering experiences with substance abuse, some people in recovery are leery of using any drugs, even prescribed ones. They have faced traumatic experiences with addiction and have a difficult time coming to terms with the necessity for medication intervention. In fact, they have quit drinking or drugging the hard way—through willpower or cold turkey—yet are willing to endure the horrible symptoms of depression rather than take medication. Very often their social sober support network advises them to refrain from taking meds (Krueger, 1981).

On the basis of the results of the present study it is recommended to symptoms and causes of personality disorders must be recognized and considered seriously at the very beginning steps. Also Cognitive, behavioral therapy and relaxation techniques should be employed to treat, prevent and over come addiction and relapse (Kidner et al., 2010).

Acknowledgment

References

Abolmaali, K., Barkhordari, P. (2014).The Prediction of Mental Health Based on Social Problem Solving and Self-Efficacy among undergraduate students. *International Journal of Education and Applied Sciences, 1(2),* 78-84.

Ahghar, G. (2014). Effects of Teaching Problem Solving Skills on Students' Social Anxiety. *International Journal of Education and Applied Sciences, 1(2),* 108-112.

American Society for Addiction Medicine (2012). *Definition of Addiction*. Retrieved from http://www.asam.org/for-the-public/definition-of-addiction

Angers, D. H., Bettinardi, Angres, K. (2008). The disease of addiction: origins, treatment, and recovery. *Disease-a-Month, 54(10),* 696–721.

Costa, P. T., Jr., & McCrae, R. R. (1978). Objective personality assessment. In M. Storandt, I. C. Siegler, & M. F. Elias (Eds.), *the clinical psychology of aging* (pp. 119-143). New York: Plenum.

Kadden, R. M. (2002). *Cognitive-Behavior Therapy for Substance Dependence: Coping Skills Training,* 2002. Retrieved from http://www.bhrm.org/guidelines/CBTKadden.pdf.

Keramati, M, R. (2014). A comparison of health-related quality of life and job satisfaction in physically active and sedentary faculty members. *International Journal of Education and Applied Sciences, 1(2),* 68-77.

Kidner, C. L., Gatchel, R. J., & Mayer, T. G. (2010). MMPI disability profile is associated with degree of opioid use in chronic work-related musculoskeletal disorders. *The Clinical journal of pain, 26(1)*, 9-15.

Kopsteina, A. N., Crumb, R. M., Celentano, D. D., & Martine, S. S. (2001). Sensation seeking needs among 8th and 11th graders: characteristics associated with cigarette and marijuana use. *Drug and Alcohol Dependence, 62(3)*, 195–203.

Kornør, H., & Nordvik, H. (2007). Five-factor model personality traits in opioid dependence. *BMC Psychiatry, 37*, 1-6.

Krueger, D. (1981). Stressful life events and the return to heroin use. *Journal of Human Stress, 7(2),* 3-8.

Kwapil, T. R., Miller, M. B., Zinser, M. C., Chapman, L. J., Chapman, J., & Eckblad, M. (2000). A longitudinal study of high scorers on the Hypomanic Personality Scale. *Journal of Abnormal Psychology, 109(2),* 222-226.

Mahdian, H., Tanhaye Reshvanloo, F., Zahmatkesh, Z., & Javidi, D. (2014). General health, psychological and social wellbeing: The role of personal and occupational factors. *International Journal of Education and Applied Sciences, 1(1),* 61-67

Nielsen, P., Rojskjaer, S., & Hesse, M. (2007). Personality-guided treatment for alcohol dependence: a quasi-randomized experiment. *The American Journal on Addictions, 16*, 357-364

Peterson, C., Bettes, B. A., & Seligman, M. E. (1985). Depressive symptoms and unprompted causal attributions: content analysis. *Behavior Research and Therapy, 23,* 379,382.

Polimeni, A. M., Moore, S. M., & Gruenert, S. (2010). MMPI-2 profiles of clients with substance dependencies accessing a therapeutic community treatment facility. *E-Journal of Applied Psychology, 6(1)*,

1-9.

Rajaeepour, S., & Mohammadi, M. (2014). Emotional Intelligence and Personality traits as predictors of Academic Performance. *International journal of education and applied Sciences, 1(1),* 1-13

Sher, K. J., Bartholow, B. D., Wood, M. D. (2000). Personality and substance use disorders: a prospective study. *Journal of Consulting and Clinical Psychology, 68(5),* 818-29.

Stefansson, R., & Hesse, M. (2008). Personality disorders in substance abusers: A comparison of patients treated in a prison unit and patients treated in inpatient treatment. *International Journal of Mental Health and Addiction, 6(3),* 402- 406.

Swendsen, J. D., Conway, K. P., Rounsaville, B. J., & Merikangas, K. R. (2002). Are personality traits familial risk factors for substance use disorders? Results of a controlled family study. *The American Journal of Psychiatry, 159(10),* 1760-1766.

Van den Over, M. C., Spijker, S., Smit, A. B., De Vries, T. J. (2010). Prefrontal cortex plasticity mechanisms in drug seeking and relapse. *Neuroscience and Biobehavioral Reviews, 335(2),* 276-284.

Verheul, R. (2001). Co-morbidity of personality disorders in individuals with substance use disorders. *European Psychiatry, 16(5),* 274-82.

Walton, K. E., & Roberts, B. W. (2004). On the relationship between substance use and personality traits: Abstainers are not maladjusted. *Journal of Research in Personality, 38(6),* 515-35.

Wulsin, L. (2001). A review of the evidence for a dose response relationship between depression and coronary disease. In: Program and abstracts of the American Psychosomatic Society 59th Annual Scientific Meeting; Monterey, Calif; March 7-10, 2001. Abstract 1201.

Wulsin, L. R., Valliant, G. E., & Wells, V. E. (1999). A systematic review of the mortality of depression. *Psychosomatic Medicine, 61,* 6-17.