

Self-esteem and locus of control in the initial and final stages of drug withdrawal among addicts attending rehabilitation centers

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Objective: To compare self-esteem and locus of control in the initial and final stages of withdrawal in addicts attending addiction treatment centers.

Methodology: This descriptive-correlational research studied 150 addicts admitted to addiction treatment centers employing convenience-sampling technique. The data were collected using Rosenberg's Self-esteem Scale and Rotter Locus of Control questionnaire. The results were analyzed in SPSS version 16.

Results: On the 12th day of the drug withdrawal, 96 addicts had moderate self-esteem and 102 had

internal locus of control. The results of the Pearson's correlation coefficient showed a significant linear relationship between locus of control and self-esteem in the final stages of withdrawal.

Conclusion: High self-esteem has been effective in improving locus of control and decreasing psychological disorders and it can be considered the optimal treatment method in psychology. (Rawal Med J 201;43:309-313).

Keywords: Addiction, self-esteem, locus of control

INTRODUCTION

Addiction refers to being captivated by a substance or drug that makes the individual emotionally and physically dependent and affects one's personal and social behaviors.¹ No other phenomenon has ever threatened human societies similar to addiction,² as it affects individual's performance and life-dynamism, and increases cognitive problems. The phenomenon of addiction in today's world has led to the destruction of many families, the diversion of juveniles, the prevalence and spread of disease, and many economic losses and even deaths. In fact, addiction has become a massive problem in the humanitarian community.³ Addiction always has psychosocial factors and affects the individual and community psychology.^{4,5}

Nearly all published sources on addiction have claimed the locus of control as a leading factor to addiction.⁶ Locus of control means having control over events and incidents and the resulting behaviors. Locus of control has external and internal dimensions. Numerous studies have indicated

existence of a relationship between self-esteem and locus of control, because the concept of the source of control is to strengthen the psychological structure.⁷ The external and internal loci of control are defined as effective psychological variables in health care systems. People with external locus of control believe that they do not have control over their life and that whatever happens to them results from external factors such as chance, destiny, others, and alike. They do not play an active role in their life.⁸ People with internal locus of control believe that they have their fate in hands and they would take the responsibility for the successes and failures. Locus of control indicates the extent to which an individual believes they can influence their life. Various studies have shown the existence of a positive strong relationship between internal locus of control and high self-esteem.⁹

Addiction affects people's self-esteem as it can cause cognitive, emotional, and psychological changes, which have many negative impacts on one's self-esteem. Self-esteem is an aspect of self-

concept gained while communicating with others.¹⁰ Self-esteem penetrates into all thoughts, perceptions, emotions, aspirations, values and goals of a person and is the key to one's behaviors.¹¹ Self-esteem is defined as the opinion people have about themselves, how they feel about their social status, and the level of coordination and closeness between their ideal self and their real self.¹² Therefore, self-esteem is the central core of psychological structures that protects an individual against anxiety and provides one with relief and peace of mind.¹³ An individual who has a high level of self-worth can easily cope with threats and external exigent events without experiencing negative arousal and psychological disintegration.¹⁴ The aim of this study was to compare self-esteem and locus of control in the initial and final stages of withdrawal in addicts attending addiction treatment centers.

METHODOLOGY

In this cross-sectional descriptive correlational study, sample size was calculated as 150 with 95% level of confidence, 80% test power and correlation coefficient of 0.25 to consider the relationship between the two variables statistically significant. The samples were selected using convenience sampling method. People attending addiction treatment centers of Borujen were selected on the first and 12th day of drug withdrawal. The inclusion criteria were as follows: 1- being present on the first, third, sixth and twelfth days of drug withdrawal in the center; 2- attending Borujen's addiction rehabilitation centers to receive treatment or consultation services; 3- not suffering from severe or chronic physical or mental disorders; 4- older than 18; 5- being able to answer the questions. Lack of interest in participation due to personal or cultural problems and failure to meet the inclusion criteria were considered as exclusion criteria from the study.

Questionnaires were distributed to participants after introducing and explaining the research objectives. They were briefed on how to fill out the survey after signing written informed consent forms. The sampling continued until saturation,

which lasted about six months. The data were collected using Rosenberg's Self-esteem Scale and Rotter's Locus of Control Scale. The first part of questionnaire covered demographic data such as age, gender, marital status, employment status, level of education, duration of drug use, etc. Rosenberg's Self-Esteem Scale has 10 general items with a four-point Likert scale response from zero to three including: totally disagree (0), disagree (1), agree (2), and totally agree (3). Here, a point of 30 is the highest while points above 25, points between 15-25, and points less than 15 indicate high, moderate, and low self-esteem, respectively.

Chen, Greenberger, and Farruggia reported the internal consistency of this scale as 0.84. Also, Barkhordari, quoting Mohamadi and Sajjadi-Nezhad, reported Cronbach's alpha and split half coefficient of Rosenberg's Self-Esteem Scale on students of Shiraz University as 0.60 and 0.68, and the retest coefficients as 0.73, 0.77, and 0.78.¹⁵ Rotter's Locus of Control Scale contains 29 items with 0-23 range of scores. So a person with scores less than 12 has internal locus of control while someone with external locus of control achieves a score equal or higher than 12. High reliability and validity have been reported for this scale in many studies. Hasan-Shahi examined reliability of Rotter's Locus of Control using Cronbach's alpha as 0.78. Khosro Abadi and Ebrahimi-Ghavam reported reliability coefficients of 0.89 and 0.79.¹⁶ We assessed the reliability of this questionnaire using Cronbach's alpha by distributing the questionnaire among 30 addicts.

The data were analyzed in SPSS version 16. Pearson's correlation coefficient, independent t-test, ANOVA, Chi-square test ad Fisher's exact test were used to reach research objectives.

RESULTS

In this study, 88.7% and 11.3% of samples were male and female, respectively. Most addicts (36%) were 26-35 years and the least aged 45 years and over. Single and married participants comprised 38% and 31.3% of the samples, respectively (Table 1).

Table 1. Frequency distribution of demographic data of samples

Variable		Frequency	Variable		Frequency
Withdrawal history	Yes No	80(53.3) 70(46.7)	Family history of drug addition	Yes No	88(58.7) 62(41.3)
Age	<25 26-35 36-45 ≥70	41(27.3) 54(36) 32(21.3) 23(15.3)	Sufficiency of monthly income	Sufficient Partially sufficient Insufficient	50(33.3) 37(24.7) 63(42)
Marital status	Married Single Divorced Widow	47(31.3) 57(38) 36(24) 10(6.7)	Gender	Female Male	17(11.3) 133(88.7)
Level of education	Illiterate High school dropout High school diploma Bachelor's degree Master's degree and higher	5(3.3) 50(33.3) 63(42) 25(16.7) 7(4.4)	Employment status	Student Housewife Retired employee Disabled Unemployed Self-employed	32(21.3) 17(11.3) 13(8.6) 37(8.6) 6(4) 41(27.3) 61(40.6)

The results indicated that 96 drug addicts had moderate self-esteem on the 12th day of withdrawal and 102 had internal locus of control. The majority of the participants had external locus of control on

the first day of withdrawal while most of them (62%) had low self-esteem in this stage (Table 2).

Table 2. Frequency and distribution of mean and standard deviation of self-esteem and locus of control.

Variable	N	%	Mean	SD
Self-esteem 1	Low (<15)	93	62	11.74
	Moderate (15-25)	32	21.33	
	High (>25)	25	16.66	
Locus of control 1	External	123	82	43.64
	Internal	27	18	
Self-esteem 12	Low (<15)	31	20.66	12.73
	Moderate (15-25)	96	64	
	High (>25)	23	15.33	
Locus of control 12	External	48	32	43.88
	Internal	102	68	

Pearson's correlation coefficient revealed the locus of control in addicts attending the addiction treatment centers on the first day of withdrawal had no significant relationship with self-esteem ($P=0.21$, $=0.628$) whereas such a relationship was significant on the 12th day of drug withdrawal ($P^*=0.011$, $=0.236$) (Table 3).

Table 3. Relationship between self-esteem and locus of control.

Variables	Locus of control on the 1st day of withdrawal <small>(Pearson correlation coefficient)</small>	Self-esteem on the 1st day of withdrawal <small>(Pearson's correlation coefficient)</small>	Variables	Locus of control on the 12th day of withdrawal <small>(Pearson's correlation coefficient)</small>	Self-esteem on the 12 th day of withdrawal <small>(Pearson's correlation coefficient)</small>
Self-esteem 1	$r_s=0.628$ $P = 0.21$	-----	Self-esteem 12	$r_s=0.236$ $p^*=0.011$	-----

The results revealed a significant relationship between age and self-esteem ($F=2.832$, $P=0.032$) and locus of control ($F=2.867$, $P=0.003$). ANOVA revealed a significance difference between the following variables: marital status and self-esteem ($P^*<0/001$, $F=4.016$); marital status and locus of control ($P=0.001$, $F=5.353$); level of education and self-esteem ($P=0.016$, $F=3.905$); status of employment and self-esteem ($P=0.004$, $F=3.432$).

DISCUSSION

The results showed that 96 participants had moderate self-esteem on the 12th day of drug withdrawal and 102 participants had internal locus of control. Also, most of them had external locus of control and low self-esteem on the first day of withdrawal. In explaining these results, it can be said that those with an external control source usually believe that what comes about is basically a

product of chance, accident, or outcome of others' actions. Addicts have less anxiety and lower self-esteem and may be reluctant to reduce the amount of anxiety that can be a drug.¹⁶ Along with this findings, the results of a study on the comparison of control source in opiate dependent individuals and normal subjects showed, the type of control source in opiate dependent individuals is more externally than ordinary people and is more internal in ordinary people.¹⁶ A study with the aim of examining the relationship between substance abuse and alcoholic beverages with self-esteem and activity in students showed the majority of samples had a low overall self-esteem, a moderate personality, and a very low social and public.¹⁷

A study on relationship between addiction and self-esteem in male and female students concluded that drug abuse had a negative and significant relationship with high self-esteem.¹⁸ A study by Zamboanga et al showed that drug use was associated with low self-esteem in adults.¹⁷ Kheiry et al conducted a comparative study on emotional intelligence, self-esteem, and attachment styles among addicts and non-addicts and stated that non-addicts scored higher self-esteem than addicts.¹⁸

Jimenez et al believed that quest for relieving the sense of worthlessness encourages the individual to tend to peers with deviant behavior.¹⁹ Similarly, Rezanejad et al stated that the negative impact of different types of stressors on personal and social sense of locus on control and coping decreases one's strength and pose an unfavorable long-term impact on personal well-being.²⁰ Maqsud is of the opinion that people who consider themselves incapable of influencing their life events lack mental health such as high self-esteem and more favorable quality of life in comparison to others.²¹ Slaughter's study result also aligned with this finding.²² The results of the present study showed a direct and significant relationship between self-esteem and locus of control on the 12th day. People with internal locus of control associate the positive outcomes of their behavior to internal factors thus they feel proud.²³ The internal locus of control can predict the level of self-esteem. So people who have high self-esteem and internal locus of control have better health status, as well.²⁴ The limitation of the study was that

selection of addicts was out of researcher's control due to issues such as illness, unwillingness to participate, personal and cultural problems.

CONCLUSION

Given the results obtained from the current and similar studies, the two variables of self-esteem and locus of control are extremely effective in mental health of addicts. In view of the major role of rehabilitation centers in treating addicted people, it is important to consider such psychological indices at different levels of rehabilitation and care. It is also necessary to set the objectives of centers to increase addicts' self-esteem and institutionalize their locus of control.

ACKNOWLEDGMENT

This study is related to a research design, which was ratified, and financial Support by the research and technology deputy of the Medical Sciences University of Shahrekord under number 1593 and ethical code 1392-01-92-1582. I hereby express my deep gratitude toward the respectable Deputy of Researches and Technology of Shahrekord University of Medical Sciences, and all patients that assisted us in this research work, without whom the study could not be possible.

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Conflict of Interest: None declared

Rec. Date: Feb 17, 2017 Revision Rec. Date: Nov 19, 2017 Accept Date: Jan 16, 2018

REFERENCES

- Copello P, Templeton L, Powell J. Adult members and cares of dependent drug users: prevalence, social cost, resource savings and treatment responses. *J Health Psychol* 2009;6:16-25.
- Lee KMT, Manning V, Teoh HC, Winslow M, Lee A, Subramaniam M, et al. Stress?coping morbidity among family members of addiction patients in Singapore. *Drug Alcohol Rev* 2011;30:441-7.
- Manchari H, Heidari M, Ghodousi-Borujeni M. Perceived Social Support in Families with Addicted

- Member Admitted to one of the Addiction Treatment Centers of Gorgan. *J Health Care* 2012;14:19-27.
4. Mancheri H, Sharifi Neyestanak N, Seyedfatemi N, Heydari M, Ghodoosi M. Psychosocial Problems of Families Living with an Addicted Family Member. *Iran J Nursing* 2013;26:48-56.
 5. Moriarty H, Stubbe M, Bradford S, Tapper S, Lim B. Exploring resilience in families living with addiction. *J Primary Health Care* 2011;3:210-7.
 6. Jaremko KM, Thompson NL, Reyes BA, Jin J, Ebersole B, Jenney CB, et al. Morphine-induced trafficking of a mu-opioid receptor interacting protein in rat locus coeruleus neurons. *Prog Neuro-Psychopharmacol Biol Psychiatry* 2014;50:53-65.
 7. Andress W. Self-efficacy theory, locus of control and smoking cessation among Asians. *Tobacco: The Growing Epidemic*: Springer; 2000. p. 728-31.
 8. Milz RU, Husstedt I-W, Reichelt D, Evers S. Control beliefs and health locus of control in Ugandan, German and migrated sub-Saharan African HIV infected individuals. *J Psychosomatic Res* 2016;83:22-6.
 9. Martin G, Richardson AS, Bergen HA, Roeger L, Allison S. Perceived academic performance, self-esteem and locus of control as indicators of need for assessment of adolescent suicide risk: implications for teachers. *J Adolescence* 2005;28:75-87.
 10. Heidari M, Ghodusi M. Relationship of Assess Self-esteem and Locus of Control with Quality of Life during Treatment Stages in Patients Referring to Drug Addiction Rehabilitation Centers. *Materia Socio-Medica* 2016;28:263-67.
 11. Stein JA, Leslie MB, Nyamathi A. Relative contributions of parent substance use and childhood maltreatment to chronic homelessness, depression, and substance abuse problems among homeless women: Mediating roles of self-esteem and abuse in adulthood. *Child Abuse Neglect* 2002;26:1011-27.
 12. Kim J-U. The effect of a R/T group counseling program on the Internet addiction level and self-esteem of Internet addiction university students. *Int J Reality Therapy* 2008;27:4-12.
 13. Steinfield C, Ellison NB, Lampe C. Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *J Appl Developmental Psychol* 2008;29:434-45.
 14. Hair M, Renaud K, Ramsay J. The influence of self-esteem and locus of control on perceived email-related stress. *Computers Human Behavior* 2007;23:2791-803.
 15. Barkhordari M, Jalalmanesh S, Mahmoudi M. Relationship trend to Critical Thinking and self-esteem in nursing students. *Ir J Med Educ* 2009;9:9-13.
 16. Kaldi A, Mahdavi R. Assessment of External and Internal Control Resources in Recurrent Addiction in Zanjan Camp of Work Therapy. *Social Welfare J* 2012;3: 307-31.
 17. Zamboanga BL, Schwartz SJ, Jarvis LH, Van Tyne K. Acculturation and substance use among Hispanic early adolescents: Investigating the mediating roles of acculturative stress and self-esteem. *J Primary Prevention* 2009;30:315-33.
 18. Kheiry T, Abdollahi M, Shahgholian M. Compare emotional intelligence, self-esteem and attachment style in addicts and non-addicts. *J Health Psychol* 2013;2:69-81.
 19. Jimenez TI, Musitu G, Murgui S. Family functioning and substance use in adolescents: The mediator role of self-esteem. *International J Clinical Health Psychol* 2008;8:139-51.
 20. Rezanejad M, Beheshty M, Bagheri MZ. Realationship between of control with depression, anxiety and stress in students in Yasuj University of medical science. *J Yasouj* 2011;10:20-6.
 21. Maqsud M. Relationships of locus of control to self-esteem, academic achievement, and prediction of performance among Nigerian secondary school pupils. *Br J Educ Psychol* 1983;53:215-21.
 22. Slaughter RI. The association between eastern spirituality, cultural value orientation, locus of control and self esteem: California State University, Fullerton; 2009.
 23. Arogundade O, Itua O. Locus of control and self-esteem as predictors of teachers' frustration in lagos state secondary schools. *Ife Psychologia* 2010;18:339.
 24. Macsinga I, Nemeti I. The relation between explanatory style, locus of control and self-esteem in a sample of university students. *Procedia-Social Behavioral Sci* 2012;33:25-9.