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Original Article

Comparison of Early Maladaptive Schemas in Drug (Traditional and Industrial) Addicted and Nonaddicted Individuals in Hamadan, Iran

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Abstract

Background and Objective: The present study aimed to compare early maladaptive schemas between individuals with and without substance use disorder (SUD) in Hamadan, Iran.

Materials and Methods: The present causal-comparative study was conducted on a total of 200 individuals with and without SUD referring to the addiction treatment centers in Hamadan, Iran, during 2016. The participants were selected based on the stratified random sampling method. In addition, the required data were collected through the Young's Schema Questionnaire Short Form and analyzed using the independent samples t-test by SPSS software (version 22).

Results: The obtained results indicated a significant difference in early maladaptive schemas between the participants with and without SUD. Accordingly, the scores of early maladaptive schemas of the subjects with SUD were generally higher than those reported for the participants without SUD (df=198; the p-value of the first column<0.05; the lowest and highest p-values of Levene's test reported as 0.000 and 0.542, respectively).

Conclusions: There was a significant difference between the scores of early maladaptive schemas in individuals with and without SUD. Accordingly, the frequency of early maladaptive schemas of the participants with SUD was generally greater than that reported for those without SUD.

Keywords: Body images, Substance-related disorders

Background

Substance use disorder (SUD) among the most common psychiatric problems caused by the interaction of genetic and environmental factors and adverse psychosocial conditions [1]. As addiction is one of the most important social issues, the examination of the causes and factors affecting the tendency to use drugs is important. Drug abuse should not be viewed as merely a physical, psychological, or social problem; however, it is developed as a result of the interaction of several factors. As the frequency of risk factors in an individual is greater, the likelihood of drug abuse would also increase [2, 3].

A large number of addicted people have personality failures, and they are stimulated to use drugs as a result of the relationship and communication with other addicted individuals [4]. One of the theories discussed on personality, psychological pathology, and psychotherapy is Young's schema therapy model. On the core of this theory lies the concept of early maladaptive schemas.

Early maladaptive schemas are patterns or deep themes, memories, emotions, and body emotions, developed in childhood or adolescence that continue throughout life. They are highly inefficient with severe effects on well-being and maladaptive performance [5, 6]. Young defines 18 early maladaptive schemas in 5 domains. The first and the most important domain is disconnection and rejection, including five schemas of abandonment/instability, emotional deprivation, mistrust/abuse, social alienation/rejection, and defectiveness/shame. The individuals with these schemas expect that their needs for safety, nurturance stability, communication, and acceptance should not be met in predictable ways.

Beck describes schemas as cognitive structures for selection, encoding, and evaluation of stimuli affecting the organism. Schemas develop during childhood and act as a model for the processing of general life experiences [7]. As they are relatively stable, they are constantly being sought as

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confirmatory information and can lead to one's vulnerability to psychological disturbances [8].

In the last few decades, many attempts have been made to investigate the relationship between drug abuse and personality structures. The assumption of an addictive personality in the psychoanalytic concepts is rooted in drug dependency. An important factor to which less attention has been paid in domestic studies is early maladaptive schemes. It is thought that drug abuse is one of the coping strategies used to counter the negative effects of motivated maladaptive schemes.

Drug abuse is one of the psychiatric disorders with numerous and diverse causes involved in its development [9]. Recent studies have focused on risk factors and multiple etiologies associated with drug abuse. Although social factors are highly emphasized in the tendency toward drug abuse, it can also be related to personality traits, beliefs, and early maladaptive schemas [10, 11].

Young people are more vulnerable to drug addiction. Various factors, such as sociological and psychological issues, are involved with regard to the etiology of addiction and unsuccessful or successful quitting among addicted people. However, it seems that an individual's response to opioids is related to the combination of the aforementioned factors. As a large number of addicted people who have successfully quitted drug returns to this maladaptive behavior, it can be concluded that drug addiction is rooted in more solid and long-lasting structures, with more determinant aspects on evident behavior [12].

The underlying symptoms of chronic disorders are most frequently substance abuse abnormalities, depression, anxiety, and mental illness [13]. The results of studies carried out by Lotfi et al. [14], Ketabi et al. [15], Wang et al. [16], and Dale et al. [17] showed that addicts suffer from more psychological damages and maladaptive schemas, compared to nonaddicts. The results of the aforementioned studies suggested that disconnection and rejection largely occurred in addicts.

Objectives

Since combative and preventive approaches to substance abuse have not been complete during past decades, the impact of maladaptive schemas and evaluation of their various aspects on turning into addiction have remained obscure. In addition, since mental health promotion plays an important role in the prevention of drug addiction, the present study attempted to examine the maladaptive schemas in addicts and nonaddicts hoping for helping addiction planners and therapists in the prevention of addiction.

Materials and Methods

This causal-comparative study was conducted on all individuals with and without SUD referring to five addiction treatment centers in Hamadan, Iran, during 2016. A total of 20 subjects were selected from each center using stratified random sampling. Accordingly, 140 individuals were chosen as the study population out of which 100 participants were selected as the study subjects through the Morgan table.

The Young's Schema Questionnaire Short Form [18] was designed for the measurement of early maladaptive schemes. The short form of the questionnaire has been developed to measure 15 early maladaptive schemas based on the original form. Each item is scored on a 5-point Likert scale (i.e., Totally false, Almost false, Slightly correct, Almost correct, and Completely correct). In this questionnaire, a higher score indicates more early maladaptive schemas.

Baranov et al. reported the Cronbach's alpha coefficients of this questionnaire as 0.94 and 0.96 for the two groups of Australian and Korean subjects, respectively [19]. In Iran, Zolfaghari et al. implemented the short form of the questionnaire for 70 couples. In the aforementioned study, the Cronbach's alpha coefficients were reported as 0.94, 0.91, 0.90, 0.73, 0.67, and 0.78 for the whole questionnaire disconnection and rejection, impaired autonomy and performance, impaired limits, other-directedness (0.91), hypervigilance, and inhibition, respectively [20].

Data analysis was performed at descriptive and inferential levels. At the descriptive level, statistical analyses, such as means, standard deviations, tables, and graphs, were used for the analysis of the data. At the inferential level, Pearson's correlation coefficient, path analysis, and independent t-test were used in SPSS software (version 22).

Results

The obtained data from the questionnaire and frequency of the subjects in terms of number, age, and education level are shown in Table 1.The independent samples t-test was performed to compare the scores of psychological schemas in drug (i.e., industrial and traditional) addicted individuals and those reported for nonaddicted subjects (Table 2).

As shown in Table 2, it can be stated that in current study, the mean scores of all the subscales of early maladaptive schemas are lower in the nonaddicted group (15/405) than those reported for the addicted group (23/815). The significance of these differences was examined using the independent t-test (Table 3).

Table 1. Frequency of subjects in terms of number, age, and education level

Characteristics	Nonaddicted individuals		Addicted individuals		Total	
	n	%	n	%	n	%
Number	100	100	100	100	200	100
Age						
20-30 years	36	36	31	31	67	33.5
31-40 years	40	40	42	42	82	41
41-50 years	24	24	27	27	51	25.5
Educational level						
Below high school	26	26	30	30	56	28
High school	44	44	47	47	91	45.5
Bachelor and higher	30	30	23	23	53	26.5

Table 2. Comparison of the scores of psychological schemas in drug (i.e., industrial and traditional) addicted individuals and those of nonaddicted subjects using independent t-test

Schema	Group	M	n	Standard deviation	Standard error of the mean
Average scores of 15 subscales of early maladaptive schemas	Addicted individuals	23/815	100	4.761	0.477
	Nonaddicted individuals	15/405	100	5.779	0.552

Table 3. Results of independent t-test for 15 subscales of psychological schemas

Subscales		Levene's test for homogeneity variances		T-test for mean						
		F-value	P-value	T-value	d.f	P-value (2 domains)	Mean of differences	Standard error differences	Differences in mean with 0.95	
									Min	Max
Self-sacrifice	Assumption of equality of variances	8/ 091	0/005	13/658	198	0/000	9/704	0/71	8/303	11/105
	Assumption of inequality of variances			13/658	187/441	0/000	9/704	0/71	8/303	11/105
Emotional inhibition	Assumption of equality of variances	18/72	0/000	12/177	198	0/000	6/642	0/545	5/566	7/718
	Assumption of inequality of variances			12/177	177/398	0/000	6/642	0/545	5/566	7/718
Unrelenting standards	Assumption of equality of variances	1/877	0/172	10/372	198	0/000	7/169	0/691	5/806	8/532
	Assumption of inequality of variances			10/372	195/857	0/000	7/169	0/691	5/806	8/532
Entitlement/ Grandiosity	Assumption of equality of variances	2/366	0/126	13/007	198	0/000	8/885	0/683	7/538	10/232
	Assumption of inequality of variances			13/007	195/389	0/000	8/885	0/683	7/538	10/232
Self-discipline/ Insufficient self-control	Assumption of equality of variances	4/117	0/000	8/968	198	0/000	5/963	0/665	4/652	7/275
	Assumption of inequality of variances			8/968	159/469	0/000	5/963	0/665	4/65	7/276
Emotional deprivation	Assumption of equality of variances	3/411	0/066	10/217	198	0/000	8/793	0/861	7/096	10/49
	Assumption of inequality of variances			10/217	189/596	0/000	8/793	0/861	7/095	10/491
Abandonment/ Instability	Assumption of equality of variances	1/382	0/241	11/671	198	0/000	8/964	0/768	7/45	10/479
	Assumption of inequality of variances			11/671	196/654	0/000	8/964	0/768	7/45	10/479
Mistrust/Abuse	Assumption of equality of variances	1/014	0/315	13/775	198	0/000	9/476	0/688	8/119	10/833
	Assumption of inequality of variances			13/775	197/209	0/000	9/476	0/688	8/119	10/833
Social alienation/Rejection	Assumption of equality of variances	0/725	0/395	11/825	198	0/000	8/692	0/735	7/243	10/142
	Assumption of inequality of variances			11/825	197/375	0/000	8/692	0/735	7/243	10/142
Defectiveness/ Shame	Assumption of equality of variances	5/853	0/016	11/586	198	0/000	8/498	0/733	7/052	9/945
	Assumption of inequality of variances			11/586	189/371	0/000	8/498	0/733	7/052	9/945
Failure	Assumption of equality of variances	3/207	0/075	12/809	198	0/000	9/528	0/744	8/061	10/995
	Assumption of inequality of variances			12/809	195/436	0/000	9/528	0/744	8/061	10/995
Dependency/ Incompetency	Assumption of equality of variances	0/373	0/542	10/106	198	0/000	7/478	0/74	6/018	8/937
	Assumption of inequality of variances			10/106	196/934	0/000	7/478	0/74	6/018	8/937
Vulnerability	Assumption of equality of variances	0/376	0/54	10/609	198	0/000	8/303	0/783	6/76	9/847
	Assumption of inequality of variances			10/609	194/765	0/000	8/303	0/783	6/76	9/847
Enmeshment/ Undeveloped self	Assumption of equality of variances	2/567	0/111	10/926	198	0/000	8/265	0/756	6/773	9/757
	Assumption of inequality of variances			10/926	195/018	0/000	8/265	0/756	6/773	9/757
Subjugation	Assumption of equality of variances	12/87	0/000	11/312	198	0/000	9/782	0/865	8/077	11/488
	Assumption of inequality of variances			11/312	176/525	0/000	9/782	0/865	8/076	11/489

According to Table 3 and results of the independent t-test, it can be concluded that there is a significant difference between the scores of the two groups. Accordingly, the frequency of the early maladaptive schemas of the participants with SUD was generally greater than that reported for the subjects without SUD (df=198; p-value of the first column<0.05; the lowest and highest p-values of Levene's test reported as 0.000 and 0.542, respectively).

Discussion

The present study aimed to compare the early maladaptive schemas between individuals with and without SUD in Hamadan. The obtained findings showed there was a significant difference between the scores of the early maladaptive schemas of individuals with and without SUD. Therefore, the frequency of the maladaptive schemas of individuals with SUD was generally greater than that reported for those without SUD. This finding was in line with the results of previous studies conducted by Lotfi et al. [14], Cicero et al. [21], and Lumley et al. [22].

According to Young's theory, maladaptive behaviors are developed in response to maladaptive schemas, and then they are triggered by schemas themselves. When maladaptive schemas are triggered, people experience usually high levels of

negative emotions, such as anger, anxiety, sadness, or feelings of guilt. Consequently, most people show maladaptive behaviors, such as drug abuse, to avoid being triggered by schemas [22,23].

In addition, it can be stated that people use drugs since they believe that drugs can reduce their negative emotions and moderate the situation; however, drug abuse causes the next negative mood in drug users leading to continued drug abuse. Therefore, it can be concluded that one of the reasons for individuals' tendency toward drug abuse is the existence of early maladaptive schemas. These early maladaptive schemas cause individuals to use drugs to compensate for personal deficiencies and join groups in which drugs are consumed because early drug abuse covers all these defects and arouses better feelings in drug users. However, it not only makes them feel good but also disrupts all the aspects of an individual's life.

Conclusions

According to the obtained results, there was a significant difference between the scores of early maladaptive schemas in individuals with and without SUD. Accordingly, the frequency of early maladaptive schemas of the individuals with SUD was generally greater than that reported for those without SUD. Considering the importance and effect of schemas on life, it is recommended to recognize and correct them during childhood and adolescence with the help of associated specialists. Moreover, given the obtained results of the current study, it is suggested to give schema-based psychotherapies regarding SUD in treatment centers in addition to other psychological services. Finally, it is also recommended to carry out supplementary studies on schemas with larger sample sizes and in different regions.

Compliance with ethical guidelines

All ethical principles were considered in this article. The participants were informed about the purpose of the study and implementation of the stages. Furthermore, informed consent was obtained from all the subjects. They were also assured of the confidentiality of their information. Moreover, the participants were allowed to withdraw from the study at any time, and the results of the study would be available to them if desired.

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Conflicts of Interest

The authors declare that there is no conflict of interest.

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