

Effectiveness of Schema Therapy on the Interpersonal Relationships Dimensions in Clients with Substance Dependence

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ABSTRACT

Objective : The present investigation aimed to explore the efficacy of schema therapy in enhancing the dimensions of interpersonal relationships among individuals undergoing treatment for drug addiction in the city of Sirjan (Iran).

Methods: The research design employed was a semi-experimental approach, incorporating both control and experimental groups. The target population consisted of all drug addicts receiving treatment in Sirjan, while the sample size comprised 30 individuals, selected through the convenience sampling method and divided into two experimental groups (15 individuals each) and a control group (15 individuals). The experimental groups underwent schema therapy for a duration of 8 sessions, while data were collected using an interpersonal relationship questionnaire. The obtained data were subjected to statistical analysis of covariance using SPSS software version 26.

Results: The findings of the data analysis revealed that the treatment protocol effectively influenced interpersonal relationships and their various dimensions, leading to improvement.

Conclusions: According to our research outcomes, the implementation of schema therapy holds significant importance in the enhancement of interpersonal relationships dimensions throughout the duration of the therapeutic process for individuals receiving treatment for substance abuse.

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Introduction

According to the United Nations Office on Drugs and Crime in 2018, 269 million people in the international community use at least one type of drug or psychoactive substance per year. A look at the severe damage caused by addiction in physical, mental, family, social, cultural and economic dimensions has caused the general population to face various issues such as the spread of various types of delinquency, petty crimes, job and unemployment problems, family conflicts and divorce. Infectious diseases and deaths are irreparable losses caused by the cycle of drug use in individuals, society and the government (Ahmadi & Ghasemipour, 2021). In the current era of globalization, Iran is not protected from the harm caused by drug addiction and psychoactive substances, and unfortunately more than four million people from the general population aged 15 to 64 suffer from continuous and experimental drug abuse. Among the population of drug users in the country, students have a very important position as the elite of society (Sarami, 2021).

The addicted person experiences many interpersonal problems with others, and psychological disturbances are associated with these negative experiences. Psychological problems arise in various areas related to the communication skills of addicts, such as efficiency and sociability, as well as obedience and commitment, intimacy and control (Kashanki & Besharat, 2017). Disorders and problems of interpersonal relationships in addicted people are associated with mental distress and confusion (Nayeri et al., 2019). As the interpersonal relationships of addicts worsen, the addict turns to using more drugs to compensate. Therefore, the development of interpersonal communication skills can reduce the intensity of drug use or even prevent the occurrence of addiction in a person.

Interpersonal communication skills are considered special abilities. Interpersonal communication skills are necessary to build relationships, so that a person can use this skill to communicate fully and adequately when conveying a message to another person, so the therapist evaluates the behavior, which means which measures situations, skills, or lack of skills that are consistently associated with addicts' communication problems (Arman Panah et al., 2019). These communication problems can be manifested in the form of aggression, depression, intense conflict, fights and verbal and physical violence. These problems lead to a decrease in coping strategies, stress threshold and resilience (Taghipour et al., 2018). Therefore, the development of this skill is necessary for addicts, so, schema therapy can be used for this purpose.

A person's skill in interpersonal relationships is the determining factor in whether the people in a person's life or who have been in the person's life are eager to see the person again or whether they fear seeing the person again. Furthermore, it is during these interpersonal relationships that one's desires, needs, and expectations are analyzed, anticipated, recognized, valued, and respected, and also based on these relationships, said subjects may be neutral or ignored (Flanagin., 2017). It should be noted that the quality of interpersonal relationships in a person creates a dominant social and emotional atmosphere in the living environment, family and also the work environment. When interpersonal relationships are well developed. The process creates contexts for the individual to enjoy their individual experiences while collaborating with others (Chen., 2021).

Interpersonal skills are the process in which a person communicates his feelings and information to another person or persons in ways such as non-verbal or verbal messages. In fact, having the ability of interpersonal skills leads to intimate and friendly relationship with others, promoting and maintaining mental health, as well as breaking unhealthy relationships, solving problems with others and eliminating conflicts. In this type of relationship, the role of the sender and receiver of the message changes continuously. The degree of interpersonal skills is a selective, systematic, unique and growing interaction that creates shared meanings between them (Wood, 2017).

Various treatments have been proposed for the treatment of addicts and have been studied in various researches. In recent years, third wave cognitive-behavioral treatments have been used. Schema therapy is one of these treatments. Schemas are deep themes and pervasive patterns that include emotions, cognition, memory, and physical sensations. It should be noted that these patterns or schemas are formed during childhood and adolescence, and are continuously and severely ineffective throughout life (Heirat & Vatankhahan, 2019). Schema therapy is based on the treatment of schemas, which is based on cognitive regulation strategies of emotions and emotions. The emphasis of emotional cognitive regulation strategies is on the cognitive dimensions of coping styles (Edwards, 2022). Primary maladaptive schemas have a significant and great impact on the tendency and intensity of drug use and addiction of addicted people (Van Dijk et al., 2019).

Early maladaptive schemas arise due to failure to satisfy basic emotional needs of childhood. Basic needs such as secure attachment to others, self-direction, freedom to express needs, healthy

emotions, spontaneity and realistic limits, etc. (Leahy, 2019). Schema therapy is formed with a strong emphasis on changing maladaptive coping styles and offers more serious and consistent cognitive and behavioral patterns than cognitive-behavioral therapies (Rek et al., 2022). According to the research of Fadaei Moghadam et al. (2022), schema therapy affects the impulsivity and relationship performance of couples. Schema therapy also improves hardiness in individuals (Shaham et al., 2021). Schema therapy affects the performance index of couples with conflict (Kashefi & Khezri Moghadam, 2021). It also improves aggression and increases life expectancy (Hashemi et al., 2021).

In a research, Quinlan et al. (2018), investigated the effectiveness of schema therapy on the interpersonal relationships of health care workers. For this purpose, 24 people were trained in two experimental and control groups and the experimental group in 9 sessions, which showed that schema therapy improves interpersonal relationships and causes the presence of the conscious mind and positive presence and high understanding in relation to others.

Bernal-Manrique et al. (2020) investigated the effect of schema therapy on improving the communication skills of adolescents. In this study, 20 adolescents with communication problems in schools were randomly selected and 15 treatment sessions were conducted in the experimental group, which showed the effect of schema therapy on improving communication skills. In a study, Renner et al. (2018) investigated the effect of schema therapy on depression symptoms and interpersonal relationships of depressed people, in this study on 30 depressed people with 3 years of continuous treatment and 20 sessions for the experimental group. Schema therapy was done and they were examined to get the results once one month after the treatment and the next time 6 months after receiving the treatment and the third time one year after receiving the treatment, the results showed that the schema therapy improved the symptoms of depression and Interpersonal relationships are effective in depressed people.

Addiction affects various aspects of a person's life. According to Hou et al. (2019), the first point that addiction targets is interpersonal relationships with others, especially with the addict's relatives. On the other hand, the research of Wu et al. (2016) showed that drug addiction reduces family relationships and also changes the family process of addicted people. In this regard, Tang et al. (2018) state in research that mostly in addicted people, weak forms of communication are formed, which has a negative impact on family relationships. Interpersonal problems are caused

by the use of ineffective coping strategies that cause emotional coping, this group of people face emotional and cognitive problems and are unable to use emotions to guide their behavior, including directing behavior appropriate in the social environment, so they have more unusual emotional behaviors than normal people (Carbal et al., 2018).

The existence of interpersonal problems destroys the foundations of the family, and the greater the severity of addiction in an addict, the problems in interpersonal relationships increase, and the point is that interpersonal problems and the desire to increase drug use are not only with drugs. It cannot be solved, and in many cases, it has been observed that despite the detoxification of the addicts' bodies and the non-use of open consumption substances, there are also interpersonal problems and the desire to consume (Nikpour et al., 2021). Therefore, there is a need for a treatment that can keep a person away from these problems. In fact, with schema therapy, the addict can focus on himself and the desire to use and reduce interpersonal problems and cause these problems to disappear, so it can be treated in less time and also prevent the breakdown of the addict's family system. . Also, schema therapy in therapeutic cases has shown that it has an effect on improving the amount of rumination and marital conflicts (Sarreshte Daranpour & Namdarpour, 2021), as well as family functioning, psychological well-being, and quality of life (Zamani et al., 2021). This treatment can be important for returning to marital and family life in addicts, and it can also shorten the period of addiction treatment in people and reduce the costs of addiction in society (Arntz & Van Genderen., 2020). Based on this, the aim of this study is to investigate the effect of schema therapy on interpersonal relationship dimensions of drug addicts undergoing treatment in Sirjan city.

Materials and Methods

The current research is semi-experimental. All drug addicts who are leaving Sirjan city were the studied community in this research. The sample size in this research was 30 people. The sampling method in this research was accessible through sampling, in this way, three addiction treatment centers were selected and they were asked to introduce to the researcher the addicts undergoing treatment who are willing to participate in the research, among these 30 people. It was selected that they were divided into two experimental groups (15 people) and control group (15 people).

Before the training, a pre-test was taken from both groups, and then the experimental group was trained in 8 therapy sessions, and after the training, a post-test was taken from both groups, and then the data was analyzed.

Queendom communication skills scale: The communication skills questionnaire was prepared by Queendom in 2004. This questionnaire has 34 items that describe communication skills. To complete it, the respondent must read each item and then rate their current situation with its content on a five-point Likert scale, from never to always. The sub-communication skills assessed in this scale include five listening skills, the ability to receive and send messages, insight into the communication process, emotional control, and assertive communication. This test was invented by Queendom to measure communication skills in adults. It has 34 statements (items) that describe communication skills. To complete it, the respondent must read each item and then determine how well their current situation matches its content on a five-point Likert scale ranging from 1 (never) to 5 (always), with 5), most of the time (4), sometimes (3), rarely (2), never (1). Questions 2-4-6 are scored in reverse. A separate score is calculated for each respondent in each of the above-mentioned skills, in the form of sub-tests containing different numbers of items. In addition, the sum of the scores in each of the 34 statements also gives him an overall score that indicates the individual's communication skills.

Thus, the range of possible scores for each person will be between 34 and 170. However, it should be noted that some statements are reverse scored in the calculation due to their nature and content. This means that if choosing the option or answer "always" for the other items results in the maximum score, i.e. 5, for the individual, in the reverse items, choosing the same answer results in the minimum score, i.e. 1. and it is marked with an asterisk in the questionnaire.

Based on this method, the obtained scores are collected. The number of questions in the questionnaire * 1 = the lower limit of the score. The upper limit of the score is 170, the average score is 102, and the lower limit is 34. A score between 34 and 68 indicates poor communication skills. A score between 68 and 102 indicates average communication skills. A score higher than 102 indicates high communication skills. In Omidpur et al.'s research (2019), Cronbach's alpha was 0.79 for this questionnaire. Also, in Jabari et al.'s research (2018), the reliability of this test was 0.85 using Cronbach's alpha method. In their research, Kurdnoqabi et al., (2016) showed the reliability of this test to be 0.89 using Cronbach's alpha test. The reliability coefficients of the

questionnaire were also calculated using Cronbach's alpha, and Cronbach's alpha was 0.702. Therefore, the reliability of the questionnaire is suitable.

Schema therapy sessions: As mentioned, the treatment method used in this study was schema therapy. Schema therapy interventions are known as cognitive-behavioral third wave treatments, and schema therapy based on the treatment of schemas focuses on cognitive regulation strategies of emotions and feelings. The sessions organized in this study were based on Jeffrey Young's schema therapy book (2018) for drug addicts in Sirjan city. The curriculum of schema therapy sessions during 8 sessions is as follows.

The first session: creating a therapeutic relationship, defining the schema and examining personal life

The second session: Schema domains and initial inconsistent schemas

The third session: the concept of a healthy adult, as well as healthy communication and imaginary conversation

Fourth session: presentation of cognitive strategies for change

Fifth session: relationship therapy, relationship with important people in life and role playing

Sixth session: Introduction of experimental strategies for change

The seventh session: breaking behavior patterns

The eighth session: review and summary (Taylor., 2017).

At the descriptive level, central tendency and dispersion indices were used to present the dependent variable of the research. At the inferential level, assumptions tests (Levin's test of normal distribution of scores) and analysis of variance were used.

Results

The values of the descriptive indices for the communication skills variable and its dimensions separately from the control group and the experimental group are given in Table1.

Table 1. Values of pre-test and post-test descriptive indices of research variables in experimental and control groups

Variable	Group	Phase	Mean	SD	Group	Phase	Mean	SD
Ability to receive and send messages	Control	Pretest	17.06	1.90	Experimental	Pretest	17	2.5
		Posttest	17.53	1.88		Posttest	30.06	4.35
Emotional control	Control	Pretest	20	1.77	Experimental	Pretest	18.73	2.60
		Posttest	20.46	1.55		Posttest	30.80	3.16
Listening skills	Control	Pretest	13.66	3.08	Experimental	Pretest	13.60	3.56
		Posttest	14.04	2.81		Posttest	21.13	4.40
Insights into the communication process	Control	Pretest	8.26	1.57	Experimental	Pretest	8.33	1.29
		Posttest	8.66	1.67		Posttest	14.93	1.53
Communication with determination	Control	Pretest	10.13	2.13	Experimental	Pretest	9.66	2.09
		Posttest	68.80	6.55		Posttest	5.13	2.29
Communication skills	Control	Pretest	68.80	6.55	Experimental	Pretest	67.33	9.40
		Posttest	70.86	6.04		Posttest	111.06	10.03

As can be seen, the average level of communication skills and its dimensions in the control and experimental groups in the pre-test stage is on the average level. But in the post-test of the experimental group, these variables have increased and improved.

Table 2. The results of the test of the assumption of homogeneity of the regression slopes

Variable	Source	F	p
Ability to receive and send messages	Pretest * Group	0.057	0.81
Emotional control	Pretest * Group	0.36	0.55
Listening skills	Pretest * Group	0.29	0.59
Insights into the communication process	Pretest * Group	3.01	0.054
Communication with determination	Pretest * Group	1.25	0.27
Communication skills	Pretest * Group	0.001	0.97

As can be seen in table 2, the F value of the interaction for all research variables is not significant. Therefore, the assumption of homogeneity of the regression slope is also confirmed.

Table 3. The results of Leven's test to check the homogeneity of variances

Variable	DF1	DF2	F	p
Ability to receive and send messages	1	28	1.96	0.17
Emotional control	1	28	0.84	0.36
Listening skills	1	28	2.93	0.098
Insights into the communication process	1	28	3.56	0.069
Communication with determination	1	28	0.07	0.793
Communication skills	1	28	2.77	0.107

A significance level higher than 0.05 indicates no violation of this assumption. According to table (3), the significance value is greater than 0.05. Therefore, this level of significance shows that the assumption of equality of variances has not been violated.

Table 4. MANCOVA analysis results on the mean scores of interpersonal relationship dimensions

Test	Value	F	Hypothesis DF	Error DF	p	Effect size	Power
Pillai's Trace	0.981	197.5	5	19	0.001	0.78	1
Wilks' lambda	0.019	197.5	5	19	0.001	0.78	1
Hotelling's trace	51.97	197.5	5	19	0.001	0.78	1
Roy's largest root	51.97	197.5	5	19	0.001	0.78	1

As can be seen in table (4), the significance levels of all the tests indicate that there is a significant difference between the experimental group (therapeutic schemas) and the control group at least in terms of one dimension of interpersonal relationships ($P < 0.05$). Therefore, this research hypothesis is also confirmed. In other words, there is a significant difference between the experimental group (schema therapy) and the control group in the improvement of interpersonal relations, and it has improved these dimensions of interpersonal relations in the experimental group. The effect size is equal to 0.78. In other words, 78% of the individual differences in the scores of interpersonal relationship dimensions of the experimental group are related to the effect of schema therapy. In order to find out which dimensions of interpersonal relationships there are differences between the two groups, a one-way covariance analysis was performed in the ANCOVA, and the results are shown in table 5.

Table 5. The results of one-way covariance analysis

Variable	Source	SS	DF	MS	F	p	Effect size
Ability to receive and send messages	Pretest	85.51	1	85.51	16.14	0.001	0.41
	Group	1013.49	1	1013.49	191.33	0.001	0.79
	Error	121.82	23	5.29			
Emotional control	Pretest	99.74	1	99.74	41.65	0.001	0.64
	Group	893.35	1	893.35	373.11	0.001	0.74
	Error	55.06	23	2.39			
Listening skills	Pretest	127.70	1	127.70	34.28	0.001	0.59
	Group	348.99	1	348.99	93.68	0.001	0.80
	Error	85.67	23	3.72			
Insights into the communication process	Pretest	18.55	1	18.55	12.65	0.002	0.35
	Group	246.35	1	246.35	168.10	0.001	0.88
	Error	33.73	23	1.46			
Communication with determination	Pretest	79.71	1	79.71	53.26	0.001	0.69
	Group	171.77	1	171.77	114.77	0.001	0.83
	Error	34.42	23	1.49			

As shown in table (5), by controlling the effect of the covariate variable (pre-test) on the dependent variable, there is a significant difference between the two groups in terms of all dimensions of interpersonal relationships ($P < 0.05$). This indicates that there is a significant difference between the experimental group (schema therapy) and the control group in improving the dimensions of interpersonal relationships of addicts undergoing treatment, and it has improved the dimensions of interpersonal relationships in the experimental group. In other words, schema therapy has an effect on improving the dimensions of interpersonal relationships of drug addicts undergoing treatment in Sirjan city.

Discussion

The results showed that by controlling the effect of the covariate variable (pre-test) on the dependent variable, there is a significant difference between the two groups in terms of all dimensions of interpersonal relationships. This indicates that there is a significant difference between the experimental group (schema therapy) and the control group in improving the dimensions of interpersonal relationships of addicts undergoing treatment, and it has improved the dimensions of interpersonal relationships in the experimental group. In other words, schema therapy has an effect on the improvement of the interpersonal relationships of drug addicts undergoing treatment in Sirjan city. The research findings are in agreement with the findings of Aghababai and Khalatbari (2018), Najarpour Mohammadabadi et al. (2016.), Quinlan et al., (2018), Bernal-Manrique et al., (2020, and Renner et al., (2018) are aligned.

In explaining the effectiveness of schema therapy on the dimensions of interpersonal relationships, it should be kept in mind that the cognitive techniques of schema therapy in treatment sessions have provided an opportunity to change cognitions, learn skills and gradually confront for independent decision-making and functioning of addicts undergoing treatment. In fact, schema therapy strategies have helped addicts change their views, because addicts believe that they need constant help from others in all areas, when they cannot control themselves or when they reduce their drug use.

Especially in the financial field for the purchase of drugs, schema therapy teaches addicts to better evaluate their coping capacity for problems, and challenging anxious and catastrophic thoughts helps these addicts better control the consequences of their addiction.

Schema therapy, by highlighting the benefits of change, shapes and increases the motivation to change in addicts. Also, schema therapy focusing on self-control and insufficient self-discipline schemas and treating these schemas can improve the internal limitations of addicts in relation to interpersonal relationships, teach addicts mutual respect and self-restraint, which is the opposite of this, are schemas and increase the ability to talk, send and receive answers with people around the addict and create a sense of cooperation between the addict and the people around him. Also, schema therapy maintains the opposite point of respect for the rights of others and contact with others by removing ineffective schemas such as rejection and incompetence. Also, the schema helps the addict to have a realistic view of himself to the extent that he knows his strengths and weaknesses and communicates with others based on these strengths and weaknesses, and yet, unlike before, they can be relatively stable in their decisions and behavior, and at the same time, they can listen to others and understand what others are saying, because they understand themselves and their weaknesses and strengths. This helps them to create a logical and correct relationship with their surroundings, family or other people they come in contact with and create a proper relationship with an atmosphere full of acceptance and empathy with those around them. The limitations of this study were limited to the range of age, education, and also the lack of access to other people who did not go to treatment clinics, which did not include these people. Considering the effect of schema therapy on the interpersonal relationships of addicts under treatment, it is suggested to use this treatment method in treatment clinics.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Islamic Azad University.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis. The author contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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