

## **The effectiveness of schema-based couple therapy on the prevention of repeated suicide in people who attempt self-immolation in Imam Khomeini Hospital Kermanshah**

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### **Abstract**

**Introduction:** In response to the increasing rate of suicide and re-attempted suicide in the world, which has significant statistics; Attention and focus on the development and implementation of suicide prevention interventions has increased. The present study was conducted with the aim of the effectiveness of schema-based couple therapy on the prevention of repeated suicide in people committing self-immolation in Imam Khomeini Hospital, Kermanshah.

**Research method:** The method of the present research was an experimental type of pre-test-post-test method with a control group. The research population was all patients hospitalized in the burn department who committed self-immolation in Imam Khomeini Hospital, Kermanshah. From this community, 16 clients were selected by a simple random method during several stages and were assigned to two groups of 8 people. Beck's Suicidal Thoughts Questionnaire and Yang's Schematic Mentality Questionnaire were used to collect data. Data analysis was done using descriptive statistics and covariance analysis with the help of Spss-21 statistical software.

**Findings:** The results of this research showed that suicidal thoughts are reduced due to couple therapy and decrease from the initial intensity level and repeated suicide attempts are eliminated.

**Conclusion:** Therefore, schema-based couple therapy can reduce the intensity of schema mentalities and suicidal thoughts of patients, and due to the reduction of suicidal thoughts, the rate of repeated suicide attempts will decrease to zero.

**Keywords:** schema-based couple therapy, self-immolation, suicidal thoughts

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## **Introduction:**

Difference between husband and wife due to individual and personality differences in married life is a natural thing and it happens in many cases. Because in the interaction between spouses, some needs are not met and the spouses feel angry, disappointed and dissatisfied with each other (1). When two people who may or may not have children start living together, they will have different functions. Among its important functions is maintaining public health and also preventing social harm. Therefore, it is very important to pay attention to the functions of the family, in terms of behavioral and personality aspects (2).

Cecilia, quoting Yusufnejad (3), has considered the function of couples' interactions, educational interactions and independent interactions, and the actions of family members have considered the interactions of couples, educational interactions, and independent interactions, and the actions of family members in the performance Within the family and in the professional and occupational society, they have examined academic, social or recreational activities and have come to the conclusion that in families where men and women are together, marital interactions can be the basis of other matters (4). In the definition of family function, it can be said that "family function is a joint effort to establish and maintain balance in the family" (5). In the field of increasing the desired performance of couples, there are different views, in this research, the schema-oriented and cognitive view has been used for its theoretical analysis. The approach that has a cognitive perspective to marital problems is that it considers schema mentalities as the main cause of couples' disorders and problems. Based on schema models and schema mentalities, the key beliefs of the family play a role in creating issues and problems. It is assumed that each couple has basic beliefs and schema mentalities about themselves and intimate relationships that they bring to the marital relationship, schemas include assumptions about the spouse and the marital relationship as they are and criteria about how How they should be. (6).

The usefulness of schema therapy in the treatment of severe marital problems and common problems in maintaining intimate relationships has been confirmed. Schema-based models consider schemas and mentalities to be a broad and comprehensive range of issues and topics that focus on their own interactions and relationships with others. It is cultivated in childhood and becomes dysfunctional to a certain extent during a complex life. Schemas are basically definite and both conditional and non-conditional, which are maintained by people (7).

Schemas are structures that are formed based on reality or experience, and as mediators, they influence people's behavioral responses. Dysfunctional schema mentalities can be considered as a part of the self that is associated with certain schemas or schema functions and is not yet fully

integrated with other parts of the self. Mentalities are divided into four groups: childish mentalities, dysfunctional coping mentalities, dysfunctional parent mentalities, healthy adult mentalities. One of the major goals of schema therapy is to teach patients how to empower healthy adult mindsets so that they can neutralize or engage in dialogue with dysfunctional mindsets. The concept of subjectivity first appeared in the behaviors of borderline personality disorder. For example, it is not uncommon for patients with borderline personality disorder to score high on all sixteen factors of the Young Schema Questionnaire. The original schema therapy model is problematic for patients with borderline personality disorder because these patients shift so quickly from one emotional state or extreme coping response to another state or response. For example, one moment they may be angry and the next they may be sad, isolated, withdrawn, emotionless, terrified, impulsive, or filled with self-loathing. Because the main focus of the main schema model was on attribute structures such as schema or coping style, therefore, considering this model to explain the phenomenon of sudden changes in patients' states was not enough. According to the schema mentality model, this is due to the continuous and uncontrollable change of the patient's states from one mentality to another. According to Young, the following five mindsets are characteristic of borderline personality disorder: the indifferent protective mindset, the abandoned/abused child mindset, the angry/impulsive child mindset, the punitive parent mindset, and the healthy adult mindset. Putting names on different mentalities is a means to help the patient to understand and identify mentalities and has no reference to identities or independent persons (8).

Based on the theory of cognitive therapy, dysfunctional emotions and behaviors in personality disorders are largely influenced by the functioning of certain schemas, which cause biased judgments and create persistent cognitive errors in a variety of special situations (9). Many studies have shown the relationship between schema mentalities and a number of psychiatric symptoms, including depression, anxiety, personality disorders, and self-injurious behaviors (10).

Therefore, there is a possibility that schema mentalities are also related to suicidal thoughts. Because suicide is one of the major problems of public health and antisocial behavior worldwide. Therefore, according to the definition of the World Health Organization, suicide is a conscious action with a fatal outcome that occurs by the person himself and with the knowledge of this outcome. Since the last 45 years, the suicide rate has increased by 60% in the whole world. Almost one million people die from suicide every year, which is 20-100 times more than suicide attempts, and every suicide attempt increases the risk of successful suicide by 32%. Due to the socio-economic and psychological consequences, committing suicide causes a lot of damage to societies and imposes huge costs on the healthcare system of countries. Suicide is one of the most complex aspects of human life, and all its dimensions and angles are not properly known. For three main reasons, researchers focus more on suicide attempts (or intentional self-harm) than suicide cases: 1) to The reason for the methodological problems that exist in the study of suicide cases. 2) The history of a previous act can be a leading risk factor for successful suicide. 3) By examining the causes and factors of suicide attempts, risk factors for suicide can be obtained (11).

In a study that was conducted to investigate the initial maladaptive schemas in people attempting to commit suicide, the results of the research show that only untransformed/trapped self-schemas and emotional deprivation were effective in the occurrence of suicide; The untransformed/trapped self-schema is effective in the occurrence of suicide independently of depression, and the emotional deprivation schema is both directly effective on suicide and indirectly by influencing depression, it can affect suicide(12). A review of the conducted studies shows that so far no research has been conducted that shows the effectiveness of schema-based couple therapy on repeated suicide attempts of patients. Since schematic mentalities are involved in many psychological injuries, it is necessary to re-examine them to prevent psychological injuries, including the occurrence of suicidal thoughts, and on the other hand, the diagnosis and identification of schematic mentalities in the treatment process can increase the recovery rate and Reduce recurrence. Therefore, according to the mentioned topics, the aim of the current research is the effectiveness of schema-based couple therapy on the prevention of repeated suicide in people committing self-immolation in Imam Khomeini Hospital, Kermanshah.

### **Research method:**

The method of the present research was an experimental type of pre-test-post-test method with a control group. The research population included all patients hospitalized in the burn department who committed self-immolation in Imam Khomeini Hospital, Kermanshah. From this community, 16 clients were selected by a simple random method during several stages and were assigned to two groups of 8 people. The following questionnaire was used to collect data.

**Beck Suicidal Thoughts Questionnaire (BSSI):** This questionnaire was created by Aaron Beck to investigate suicidal thoughts and was prepared to reveal and measure the intensity of attitudes and planning to commit suicide. It has 19 questions, each question is scored from 0 to 2, so people's scores are variable between 0 and 38. The evaluation of suicidal thoughts in a person will be based on the score obtained by people without suicidal thoughts (score 0 to 3), with low suicidal thoughts (score 4 to 11) and with high-risk suicidal thoughts (score 12 and more). This scale has high validity and reliability for investigating suicidal thoughts and its standardization has also been done in Iran (13). The internal correlation of this test is 0.89. Its concurrent validity with the general health questionnaire is equal to 0.76 and its reliability using Cronbach's alpha method is equal to 0.95 and it is obtained using the retest method of 0.54 (13).

**Young's Schematic Mentalities Questionnaire (SMI):** The long version of the Schematic Mentalities Questionnaire (7) is a 186-item self-report questionnaire that uses a Likert-type measurement scale from 1 (never) to 6 (always or all the time). Is. The short version of this questionnaire has 124 questions. Its purpose is to measure 14 schema mentalities and it is scored on a 6-point Likert scale: 1=never and 6=always. SMI has good construct validity and convergent validity, and good internal reliability (Cronbach's alpha) was reported for all subscales (between 0.76 and 0.96) (14). The higher a person's score in these mentalities indicates the inflexibility of that mentality. Therefore, high scores indicate the dominance of that mentality over the

information processing system. Since mentalities change very quickly, it is possible that the patient will score high in different mentalities in different sessions. This questionnaire does not have a cutoff score and the interpretation of the scores for each subscale is obtained by obtaining the average of each subscale and comparing it with the main scoring key (15).

The statistical software Spss-21 was used to analyze the data. Mean and standard deviation were used in the descriptive statistics section and covariance analysis test was used in the inferential statistics section.

### Findings:

According to the findings of the current research, the majority of the sample people in the age range of 25-35 years old in the experimental group with frequency (10) and percentage (62.5), all sample people in the diploma level and below with frequency (16) and percentage (100), the majority of the sample in terms of the duration of marriage in the experimental group with frequency (10) and percentage (62.5) and the majority of the sample in terms of the number of children which is equal in both groups with the frequency (10) and percentage (5.62) was Table 1 shows the mean and standard deviation of the scores related to schematic mentalities and suicidal thoughts among the experimental and control groups separately.

**Table 1. The mean and standard deviation of scores of schematic mentalities and suicidal thoughts in groups**

variable	group	pre-exam		post-test	
		average	Standard deviation	average	Standard deviation
Schematic mentalities	experiment	81/3	11/39	38/3	8/55
	Control	55/4	12/18	57/3	21/36
Suicidal thoughts	experiment	75/14	4/84	75/8	2/05
	Control	62/14	2/90	62/8	2/06

**Schema-oriented couple therapy is effective on patients' schema mentalities and suicidal thoughts.**

**Table 2. Lone's test to investigate the equality of variances of experimental and control groups in dependent variables**

variable	F	DF1	DF2	Significance level
Schematic mentalities	0/957	1	14	0/345

<b>Suicidal thoughts</b>	0/784	1	14	0/345
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The information in Table 2 shows us that the dependent variables in the two groups are not significant because the p value in all of them is greater than 0.05. Therefore, in these variables, the variances are equal and the implementation of the covariance test is unimpeded.

**Table 3. Results of multivariate covariance analysis to investigate the effect of schema-based couple therapy on schema mentalities and suicidal thoughts in groups**

Sources changes	Value	F	DF	DF error	Significance level
<b>Pillai effect</b>	0/381	3/994	2	13	0/044
<b>Wilks</b>	0/619	3/994	2	13	0/044
<b>Lambda</b>					
<b>Hotelling's work</b>	0/614	3/994	2	13	0/044
<b>Roy test</b>	0/614	3/994	2	13	0/044

The results of Table 3 show that there is a significant difference between the experimental group that was influenced by schema-based couple therapy and the control group that did not receive any training in both dependent variables [ $P=0.044$ ,  $F: 3.994, 2,13 =df$ ] and this method has been effective in restoring schematic mentalities and reducing suicidal thoughts. Therefore, the main hypothesis of the research is confirmed. Schema-oriented couple therapy is effective on patients' schema mentalities.

**Table 4. Results of covariance analysis to investigate the effect of schema-based couple therapy on schema mentalities**

Source	sum of squares	DF	Average squares	F	Significance level
<b>Groups</b>	1406/250	1	1406/250	5/310	0/037
<b>error</b>	3707/500	14	264/821		
<b>Total</b>	1941386/000	16			

The results of Table 4 show that there is a significant difference between the experimental group that was influenced by schema-based couple therapy and the control group that did not undergo any training in the variable of schema mentalities. Therefore, the first sub-hypothesis is confirmed. Schema-oriented couple therapy is effective on patients' suicidal thoughts.

**Table 5. Results of covariance analysis to investigate the effect of schema-based couple therapy on suicidal thoughts**

Source	sum of squares	DF	Average squares	F	Significance level
<b>Groups</b>	235/627	1	235/627	4/697	0/032
<b>error</b>	7425/013	14	169/50		
<b>Total</b>	216578/000	16			

The results of Table 5 show that there is a significant difference in the variable of suicidal thoughts between the experimental group that was influenced by schema-oriented couple therapy and the control group that did not receive any training. Therefore, the second sub-hypothesis is also confirmed.

### Discussion and conclusion:

The present study was conducted with the aim of the effectiveness of schema-based couple therapy on the prevention of repeated suicide in people who commit self-immolation in Imam Khomeini Hospital, Kermanshah. In general, the results of this research showed that schema-based couple therapy was effective on patients' schema-based mentalities and suicidal thoughts, so schema-based couple therapy can reduce the severity of patients' schema-based mentalities and suicidal thoughts, and according to the reduction of thoughts Suicide, the rate of attempted suicide has reached zero again. This result is in line with the research findings of Khmerani et al. (12); armored (10); Montazeri et al. (16) and Oro, Kluit and Padilla (17) are aligned. In explaining these findings, it can be said that the activation of dysfunctional and schema parent mentalities can lead to the awakening of suicidal thoughts and suicide attempts, and since spouses play an important role in restoring and strengthening these dysfunctional mentalities, therefore couple therapy Schema-oriented plays an effective role in restoring schema mentalities and reducing suicidal thoughts and attempts.

### Limitations:

One of the limitations of this research was that the current research was limited to a clinical sample of patients and generalization of the results to other populations with cultural differences should be done with caution. Among other limitations was the large number of questions in the questionnaire, which may have caused impatience and carelessness in answering the questionnaires. Another limitation of this research was the lack of control and examination of the role of possible effective mediating and contextual variables, especially culture along with schemas, which seems to require more comprehensive research.

### Ethical considerations:

The subjects were reminded that the information will remain confidential and their names will not be mentioned anywhere, and also, they were asked to honestly complete the questionnaires because these questionnaires do not have any evaluation aspect, only in order to access the research results of They have been used. In addition, the subjects were given permission to refuse to participate in the research if they wished.



**Conflict of interest:**

The authors hereby declare that this work is the result of an independent research and does not have any conflict of interest with other organizations and persons.

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