

The effectiveness of couple therapy based on acceptance and commitment on love schemas and emotional schemas in couples with extramarital relationships

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ABSTRACT

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Objective: This study aimed to determine the effectiveness of couple therapy based on acceptance and commitment on love schemas and emotional schemas in couples with extramarital relationships with a two-month follow-up period.

Methods and Materials: This research used a single-case quasi-experimental design of multiple baseline types. The statistical population of this research included all couples with experience in extramarital relations who were referred to the family courts and prevention unit of the Dezful city welfare department in 2021-22. After the diagnostic interview and specifying the couples who met the entry criteria, four couples (8 persons) were selected based on purposive sampling. The protocol of the couples therapy method was implemented in the form of three baseline stages and, eight 90-minute sessions and a two-month follow-up. The participants responded to Yaarmohammadi Vasel et al.'s Love Schema Questionnaire (2021) and Leahy Emotional Schema Scale (LESS). The data were analyzed using a visual drawing method, reliable change index (RCI), and recovery percentage formula.

Findings: The results showed that couple therapy based on acceptance and commitment increased adaptive emotional schemas and decreased maladaptive emotional schemas of couples with extramarital relationships ($p < 0.05$). Couple therapy based on acceptance and commitment significantly affects the secure love schema, unstable love schema, clingy love schema, avoidant love schema, and non-serious love schema ($p < 0.05$) and its results continued until the follow-up stage.

Conclusion: Therefore, couple therapy based on acceptance and commitment as a stable intervention to increase love and emotional schemas can be used in health and treatment centers for couples with extramarital relationships.

Keywords: couple therapy based on acceptance and commitment, love schemas, emotional schemas, extramarital relationships

1. Introduction

Marital relationship has always faced various challenges due to its multifaceted nature and many

factors influence it. In the meantime, *infidelity* causes the most damage to the relationship between spouses and can even lead to its destruction (Tajbakhsh, 2021). Who finds

out about their spouse's *extramarital affairs* experiences severe mental and emotional discomfort due to the breaking of this contract because when people are in an intimate relationship, they have experiences and feelings that are unique to them (Rahimi, Atashpuor, & Golparvar, 2019).

According to a general definition, extramarital affairs are violations of the commitment of a two-person relationship that leads to the formation of emotional and physical intimacy with someone outside of this relationship (Lişman & Holman, 2021). Researchers have reported 20 to 25 percent of spouses' tendency to extramarital affairs in different societies (Fincham & May, 2017). Research evidence indicates that the orientation of marital goals and the quality of life together can be influenced by *love schemas* (Yaarmohammadi Vasel, Mehrabi Pour, & Zoghpaïdar, 2021). One of the influential factors in creating extramarital affairs is the quality of love (Fallahian, Mikaeli, & Yousefi Moridani, 2019). Kansky (2018) describes love as a feeling of complete security and protection in another person's presence and believes there is a correlation between love schemas and marital structures such as intimacy, commitment and affection between couples (Kansky, 2018). The love schema of each person is considered according to his comfort level with closeness, independence and desire to establish romantic relationships. According to them, people usually prefer a spouse with a similar attachment style and love schema, and there is a relationship between unstable, withdrawn and clingy love schema with attachment and marital problems (Acmed-Ismael, 2021). The influence of love schemas on people's thoughts, feelings and behaviors in romantic relationships, the formation of different cognitive patterns and expectations from themselves and their love partners is more or less known. Several pieces of evidence have also been obtained in support of the relationship between attachment patterns and love schemas, and on the other hand, the relationship between attachment style and phenomena related to romantic relationships such as commitment, sexual abstinence, and relationship stability (Goudarzi et al., 2022).

It seems that each of the psychiatric and marital traumas, including extramarital relationships and positive attitudes toward them, can have a profile of emotional schemas (Veilleux et al., 2021). On the other hand, studies have shown that problems in emotional schemas can be associated with many emotional and marital consequences in the family (Faustino & Vasco, 2021), including increased tension and marital incompatibility (Edwards et

al., 2021). The cognitive model of emotional schemas shows that people have different schemas about their emotions. These schemas reflect how people experience emotions and the beliefs they have in mind when unpleasant emotions are aroused about the appropriate plan of action (how to act when unpleasant emotions are aroused (Pilkington, Bishop, & Younan, 2021).

Also, maladaptive emotional schemas are related to extramarital relationships, anxiety, depression, marital conflicts, chronic fatigue syndrome, irritable bowel syndrome, somatization disorder, eating disorders, social phobia, PTSD, and personality disorders (Leahy, 2018; MacLeod, Elliott, & Rodgers, 2012; Nazari & Meigooni, 2017; Nenadić, Lamberth, & Reiss, 2017; Pugh, 2015; Reinitz, 2018; Soltani et al., 2021; Stamps, 2020). In this regard, one of the treatments proven effective in treating anxiety and depression and reducing stress is *Acceptance and commitment therapy* (ACT) (Yaghoobi, Toozandehjani, & Zendedel, 2021). Acceptance and Commitment Therapy was developed in 1986 by Hayes. This method is part of the third wave of behavioral therapies and emerged after the second wave of these treatments, such as cognitive-behavioral therapy. ACT implicitly accepts changes in thoughts and feelings rather than their form, content, or frequency (Hayes, 2004; Hayes et al., 2006). ACT has six basic principles: fault, acceptance, contact with the present moment, observing self, values and committed action. The fault is to prevent cognitive fusion. Acceptance and commitment therapy consists of two processes. First is the acceptance or willingness to experience pain or other disturbing events without trying to control them, and the second is value-based action or commitment combined with the desire to act as meaningful personal goals, before eliminating unwanted experiences (Khosroshahi, Mirzaian, & Hasanzadeh, 2019; Van de Graaf et al., 2021).

The purpose of teaching acceptance and commitment is to create psychological flexibility; That is, creating the ability to choose an action and adopt a solution among the available solutions that is more suitable and practical than the others, not just an action that avoids disturbing thoughts, feelings, and desires (Herbert & Forman, 2011; Kazemeini et al., 2022). In this method, to create psychological flexibility, the person is taught to increase the acceptance of his psychological experiences, the ineffectiveness of actions and avoidance behaviors in front of psychological experiences, understanding and these experiences are accepted without any internal and external

reactions. In the next stage, the client learns to be aware of all the moments of his life and can determine his actions and values independently of his experiences. Finally, he is motivated to perform committed actions (Hayes, 2004; Mardani et al., 2023). Therefore, this research seeks to answer whether couple therapy based on acceptance and commitment is effective for love and emotional schemas in extramarital relationships.

2. Methods and Materials

2.1. Study design and Participant

This research used a single-case quasi-experimental design of multiple baseline types. The statistical population of this research included all couples (husband and wife) with experience in extramarital relations who were referred to the family courts of Dezful City in 2021-2022. The sampling method in this research is "purposive sampling". Four couples were selected for the intervention.

2.2. Measures

The participants responded to Yaarmohammadi Vasel et al.'s Love Schema Questionnaire (2021) and Leahy Emotional Schema Scale (LESS) (Leahy, 2018; Yaarmohammadi Vasel, Mehrabi Pour, & Zoghipaidar, 2021).

2.2.1. Love Schema

Love schema self-report tool was developed in 2018 by Yaarmohammadi Vasel et al. to evaluate schema love, which includes 49 questions with six subscales of schema love, safe, clingy or sticky, avoidant, non-serious, and dispassionate. The convergent validity of this instrument was adequate. The calculated Cronbach's alpha for secure love schema is 0.63, clingy love schema is 0.85, withdrawn

love schema is 0.80, unstable love schema is 0.92, non-serious love schema is 0.82, and disinterested love schema is 0.81 (Yaarmohammadi Vasel, Mehrabi Pour, & Zoghipaidar, 2021). In the present study, Cronbach's alpha was obtained for the secure love schema of 0.61, clingy love schema of 0.86, withdrawing love schema of 0.78, unstable love schema of 0.84, non-serious love schema of 0.75, and disinterested love schema of 0.76.

2.2.2. Emotional Schema

The Leahy Emotional Schema Scale was designed by Robert Leahy in 2002 to identify different emotional schemas. This scale contains 14 dimensions and 50 items. Each item is scored on a 6-point Likert scale from completely false (1) to completely true (6). Since it measures some dimensions of incompatible schemas and some compatible schemas, there is no overall score, and each dimension's scores are calculated separately. Leahy (2002) has reported the internal consistency of this scale using Cronbach's alpha coefficient of 0.81 (Leahy, 2002). In a study conducted on 1286 participants on the original form of this scale, a high internal consistency of 0.80 was reported (Kiaee Rad et al., 2020). In the present study, the reliability of this scale was found to be 0.75 for the adaptive emotional schema and 0.78 for the non-adaptive emotional schema.

2.3. Intervention

2.3.1. ACT couple therapy

ACT was conducted in 8 sessions of 90 minutes in 8 consecutive weeks. The summary of the meetings is presented in the Table 1:

Table 1

Content of ACT sessions

Session	Content
1	Establishing a therapeutic relationship, familiarizing people with the research subject, answering the questions and concluding a contract between the parties.
2	Discovering and examining different treatment methods and evaluating their effectiveness, discussing the temporary and ineffectiveness of treatments using metaphors, receiving feedback and presenting assignments.
3	Helping clients to recognize ineffective control strategies and realize their futility, accepting painful personal events without conflict with them using metaphors, receiving feedback and providing homework.
4	Explaining about avoiding painful experiences and being aware of its consequences, teaching the steps of acceptance, changing language concepts using metaphors, teaching body relaxation, receiving feedback and presenting assignments.
5	Introducing the three-dimensional behavioral model in order to express the common relationship between behavior, emotions, psychological functions and observable behavior and discuss efforts to change behavior based on it, perform practical exercises of some examples, receive

	feedback and present assignments.
6	Explaining the concepts of role and context, observing oneself as a platform and establishing contact with oneself using metaphor, awareness of different sensory perceptions and separation from the senses that are part of the mental content. Relaxation exercises, receiving feedback and presenting assignments.
7	Explaining the concept of values, creating motivation for change and empowering clients for a better life, focused practice, receiving feedback and presenting assignments.
8	Teaching commitment to action, identifying behavioral plans in accordance with values and creating commitment to act on them, summarizing meetings, presenting pamphlets and showing video clips of parables.

2.4. Data Analysis

The data were analyzed using a visual drawing method, reliable change index (RCI), and recovery percentage formula.

3. Findings and Results

The mean age of the samples was 33.62 years, the age range of the studied sample was between 24 and 42 years, and the duration of their life together was between 4 and 8 years. In terms of education level, 3 people had a diploma, 4 had a bachelor's degree, and 1 had a master's degree.

Table 2

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the safe love schema

Stages	Couples	1	2	3	4
First base line		28	31	19	15
Second base line		26	30	18	14
Third base line		27	32	20	15
Mean baseline		27	31	19	14.67
Second session		26	32	18	16
Fourth Session		29	36	24	20
Sixth session		34	38	28	25
Eighth session		38	41	32	28
Mean of treatment stage		31.75	36.75	25.50	22.25
RCI (Therapy)		4.56	4.15	5.39	5.53
Percentage of recovery after treatment		41	32	68	91
Percentage of overall recovery			58		
Follow up on the first appointment		39	42	33	29
Follow up the second time		36	38	31	27
Mean follow-up phase		37.50	40	32	28
RCI (Follow-up)		4.59	3.57	6.12	6.29
Recovery percentage after follow-up		33	23	63	84
Percentage of overall recovery			50.75		

Table 2 shows that the scores of the safe love scheme in the couples of the couple therapy group based on acceptance and commitment increased in the treatment and follow-up stages. At the end of intervention and follow-up, the amount of RCI has reached (Z=1.96) according to the

significance level (p<0.05). Therefore, it can be concluded that the changes of all four couples in the couple therapy group based on acceptance and commitment in the variable of safe love schema are statistically acceptable and the result of the treatment effect. As can be seen in Table 2, in the couple therapy group based on acceptance and commitment, the total recovery percentage after treatment was 58 and after the two-month follow-up period, the total recovery percentage was 50.75. In other words, the total recovery percentage after a two-month follow-up period has decreased by 7.25%.

Table 3

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the sticky love schema

Stages	Couples	1	2	3	4
First base line		29	32	36	30
Second base line		27	34	35	31
Third base line		26	33	34	32
Mean baseline		27.33	33	35	31
Second session		25	30	32	27
Fourth Session		23	26	28	23
Sixth session		20	22	24	18
Eighth session		16	14	20	14
Mean of treatment stage		21	23	26	20.50
RCI (Therapy)		-4.38	-7.34	-5.79	-6.56
Percentage of recovery after treatment		-45	-58	-43	-55
Percentage of overall recovery			50.25		
Follow up on the first appointment		18	14	19	13
Follow up the second time		17	15	20	14
Mean follow-up phase		17.5	14.5	19.5	13.5
RCI (Follow-up)		-3.99	-6.95	-5.79	-6.56
Recovery percentage after follow-up		-49	-55	-43	-55
Percentage of overall recovery			50.75		

Table 3 shows that the scores of the sticky love schema have decreased in the couples of the couple therapy group based on acceptance and commitment in the treatment and follow-up stages. The amount of reliable change index (RCI) in couples at the end of the intervention and follow-up has reached (Z=1.96) according to the significance level

($p < 0.05$). Therefore, it can be concluded that the changes of all four couples in the group of couples therapy based on acceptance and commitment in the schema variable of sticky love are statistically acceptable and the result of the treatment effect. Also, as seen in Table 3, in the couple therapy group based on acceptance and commitment, the overall recovery percentage after treatment was 49.25 and after the two-month follow-up period, the overall recovery percentage was 47.75. In other words, the overall recovery percentage has decreased after a two-month follow-up period.

Table 4

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the avoidant love schema

Stages	Couples	1	2	3	4
First base line		23	26	18	21
Second base line		21	24	16	20
Third base line		24	23	17	23
Mean baseline		22.67	24.33	17	21.33
Second session		20	22	16	19
Fourth Session		16	18	14	17
Sixth session		14	15	12	14
Eighth session		10	11	8	10
Mean of treatment stage		15	16.5	12.5	15
RCI (Therapy)		-7.36	-7.76	-5.23	-6.59
Percentage of recovery after treatment		-56	-55	-53	-53
Percentage of overall recovery			54.25		
Follow up on the first appointment		10	9	9	9
Follow up the second time		8	9	7	8
Mean follow-up phase		9	9	8	8
RCI (Follow-up)		-6.46	-6.75	-4.41	-5.87
Recovery percentage after follow-up		-65	-63	-59	-63
Percentage of overall recovery			-62.5		

Table 4 shows that the scores of the avoidant love scheme in the couples of the couple therapy group based on acceptance and commitment decreased in the treatment and follow-up stages. The amount of reliable change index (RCI) in couples at the end of the intervention and follow-up has reached ($Z=1.96$) according to the significance level ($p < 0.05$). Therefore, it can be concluded that the changes of all four couples in the couple therapy group based on acceptance and commitment in the avoidant love schematic variable are statistically acceptable and the result of the treatment effect. Also, as can be seen in Table 4, in the couple therapy group based on acceptance and commitment, the overall recovery percentage after

treatment was 54.25 and after the two-month follow-up period, the overall recovery percentage was 62.5. In other words, the overall recovery percentage has increased by 7% after a two-month follow-up period.

Table 5

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the unstable love schema

Stage	Couples	1	2	3	4
First base line		32	35	28	31
Second base line		34	37	29	30
Third base line		31	36	28	32
Mean baseline		32.33	36	28.33	31
Second session		30	34	26	28
Fourth Session		25	30	23	25
Sixth session		20	24	16	21
Eighth session		14	17	14	15
Mean of treatment stage		22.25	26.25	19.75	22.25
RCI (Therapy)		-7.11	-7.36	-5.56	-6.20
Percentage of recovery after treatment		-57	-53	-51	-52
Percentage of overall recovery			53.25		
Follow up on the first appointment		15	16	13	13
Follow up the second time		13	15	14	12
Mean follow-up phase		14	15.5	13.5	12.5
RCI (Follow-up)		-5.89	6.40	-4.37	-5.79
Recovery percentage after follow-up		-60	-58	-51	-61
Percentage of overall recovery				57.5	

Table 5 shows that the unstable love schema scores in the couples of the couple therapy group based on acceptance and commitment decreased in the treatment and follow-up stages. The amount of reliable change index (RCI) in the couples of the two groups at the end of the intervention and follow-up has reached ($Z=1.96$) according to the significance level ($p < 0.05$). Therefore, it can be concluded that the changes of all four couples in the couple therapy group based on acceptance and commitment in the variable of unstable love schema are statistically acceptable and the result of the treatment effect. Also, as seen in Table 5, in the couple therapy group based on acceptance and commitment, the overall recovery percentage after treatment was 53.25 and after the two-month follow-up period, the overall recovery percentage was 57.5. In other words, the total recovery percentage after a two-month follow-up period has increased by 4.25.

Table 6

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the unserious love schema

Stage	Couples	1	2	3	4
First base line		25	25	23	24
Second base line		23	24	21	26
Third base line		24	25	22	24
Mean baseline		24	24.67	22	24.67
Second session		24	24	22	24
Fourth Session		26	23	23	22
Sixth session		23	18	17	18
Eighth session		19	16	15	16
Mean of treatment stage		23	19.5	18.5	20
RCI (Therapy)		-2.21	-3.84	-3.10	-3.84
Percentage of recovery after treatment		-51	-49	-48	-55
Percentage of overall recovery			50.75		
Follow up on the first appointment		20	16	15	17
Follow up the second time		21	15	16	16
Mean follow-up phase		20.50	15.5	15.5	16.5
RCI (Follow-up)		-0.93	-3.01	-1.87	-2.70
Recovery percentage after follow-up		-53	-49	-48	-50
Percentage of overall recovery			50		

Table 6 shows that the non-serious love schema scores in the couples of the couple therapy group based on acceptance and commitment decreased in the treatment and follow-up stages. The amount of reliable change index (RCI) in the couples of the couple therapy group based on acceptance and commitment is more than ($Z=1.96$) at the end of the intervention ($p<0.05$). Therefore, it can be concluded that the changes of four couples in the couples therapy group based on acceptance and commitment in the non-serious love schematic variable are statistically acceptable and the result of the treatment effect. The amount of reliable change index (RCI) in the second and fourth couples of the couple therapy group based on acceptance and commitment is more than ($Z=1.96$) at the end of the follow-up ($p<0.05$). Therefore, it can be concluded that the changes of the second and fourth couples of the couple therapy group based on acceptance and commitment in the non-serious love schematic variable are statistically acceptable and the result of the treatment effect. Also, as seen in Table 6, in the couple therapy group based on acceptance and commitment, the overall recovery percentage after treatment was 30.75 and after the two-month follow-up period, the overall recovery percentage was 28.5. In other words, the overall recovery percentage has decreased after a two-month follow-up period.

Table 7

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the dispassionate love schema

Stage	Couple	1	2	3	4
First base line		14	16	17	18
Second base line		15	15	18	17
Third base line		14	15	15	18
Mean baseline		14.33	15.33	16.67	17.67
Second session		15	15	15	16
Fourth Session		14	13	12	17
Sixth session		14	13	10	14
Eighth session		13	13	8	15
Mean of treatment stage		14	13.5	11.25	15.5
RCI (Therapy)		-0.52	-0.92	-3.41	-1.05
Percentage of recovery after treatment		-49	-55	-52	-45
Percentage of overall recovery			50.25		
Follow up on the first appointment		14	13	10	15
Follow up the second time		14	13	11	14
Mean follow-up phase		14	13	10.5	14.5
RCI (Follow-up)		-0.14	-0.99	-2.40	-1.55
Recovery percentage after follow-up		-50	-55	-54	-51
Percentage of overall recovery				50.52	

Table 7 shows that the scores of the disinterested love scheme in the couples of the couple therapy group based on acceptance and commitment decreased slightly in the treatment and follow-up stages. The amount of RCI is higher ($Z=1.96$) only in the third couple of the couple therapy group based on acceptance and commitment ($Z=1.96$) ($p<0.05$). Therefore, it can be concluded that the changes of the third couple in the couples therapy group based on acceptance and commitment in the disinterested love schematic variable are statistically acceptable and the result of the treatment. Also, as can be seen in Table 7, in the couple therapy group based on acceptance and commitment, the overall recovery percentage after treatment was 22.75 and after the two-month follow-up period, the overall recovery percentage was 18. In other words, the overall recovery percentage has decreased after a two-month follow-up period.

Table 8

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the adaptive emotional schema

Stage	Couples	1	2	3	4
First base line		28	38	42	48
Second base line		32	37	41	47
Third base line		30	39	44	43
Mean baseline		30	38	42.33	46
Second session		35	45	48	53
Fourth Session		42	51	52	67
Sixth session		68	64	62	74
Eighth session		72	73	79	84
Mean of treatment stage		54.25	58.25	60.25	69.50
RCI (Therapy)		4.19	3.49	3.66	3.79
Percentage of recovery after treatment		140	92	87	83
Percentage of overall recovery			105.5		
Follow up on the first appointment		68	69	76	82
Follow up the second time		65	66	74	80
Mean follow-up phase		65.50	67.50	75	81
RCI (Follow-up)		2.56	2.05	2.32	2.49
Recovery percentage after follow-up		117	74	75	74
Percentage of overall recovery			85		

Table 8 shows that the scores of adaptive emotional schemas have increased in the couples of the couple therapy group based on acceptance and commitment in the treatment and follow-up stages. The amount of reliable change index (RCI) in couples at the end of the intervention and follow-up has reached ($Z=1.96$) according to the significance level ($p<0.05$). Therefore, it can be concluded that the changes of all four couples in the couple therapy group based on acceptance and commitment in the variable of adaptive emotional schemas are statistically acceptable and the result of the treatment effect. Also, as can be seen in Table 8, in the couple therapy group based on acceptance and commitment, the overall recovery percentage after treatment was 105.5 and after the two-month follow-up period, the overall recovery percentage was 85. In other words, the total recovery percentage after a two-month follow-up period has decreased by 20.5.

Table 9

The process of change in the treatment stages of four couples in the couple therapy group based on acceptance and commitment in the non-adaptive emotional schema

Stage	Couples	1	2	3	4
First base line		66	58	74	78
Second base line		65	56	73	76
Third base line		68	57	72	78
Mean baseline		66.33	57	73	77.33
Second session		65	54	71	75
Fourth Session		58	48	64	70
Sixth session		50	40	53	62
Eighth session		42	35	42	51
Mean of treatment stage		53.75	44.25	57.50	64.50
RCI (Therapy)		-3.52	-3.18	-4.49	-3.81
Percentage of recovery after treatment		-57	-59	-52	-64
Percentage of overall recovery			58		
Follow up on the first appointment		43	34	42	52
Follow up the second time		44	36	39	53
Mean follow-up phase		43.50	35	40.50	52.50
RCI (Follow-up)		-2.76	-2.60	-4.20	-3.01
Recovery percentage after follow-up		-64	-67	-47	-39
Percentage of overall recovery			54.25		

Table 9 shows that the scores of non-adaptive emotional schemas in the couples of the couple therapy group based on acceptance and commitment have decreased in the treatment and follow-up stages. The amount of reliable change index (RCI) in the couples of the two groups at the end of the intervention and follow-up has reached ($Z=1.96$) according to the significance level ($p<0.05$). Therefore, it can be concluded that the changes of all four couples in the couple therapy group based on acceptance and commitment in the variable of non-adaptive emotional schemas are statistically acceptable and the result of the treatment effect. Also, as seen in Table 9, in the couple therapy group based on acceptance and commitment, the total recovery percentage after treatment was 38 and after the two-month follow-up period, the total recovery percentage was 37.25. In other words, the overall recovery percentage after a two-month follow-up period has decreased by 0.75.

4. Discussion and Conclusion

This research aimed to determine the effectiveness of ACT couple therapy on love schemas and emotional schemas in couples with extramarital relationships. The results showed that ACT couple therapy is effective in safe love schema, unstable love schema, clingy love schema, avoidant love schema and non-serious love schema in couples with extramarital relationships. Also, the results showed that couple therapy based on acceptance was ineffective in reducing the disinterested love schema.

In the explanation of the mentioned findings, it can be said that ACT treatment by treating emotional avoidance, improving reactions, identifying values, and creating commitment to behavioral changes could help couples improve their love schema. In addition, by using the skill of disconnection, couples were able to directly deal with unpleasant feelings, especially in therapy sessions, and experience them instead of controlling and challenging unwanted thoughts and feelings. In fact, this treatment increased the sincere responses and exchange of positive feelings. This process helped them realize their deepest heart desires and the importance of marital relationships in their lives. In fact, according to the report of the participating couples in this research, the disclosure of values, widespread values in the marital relationship, and conflicts between them have decreased, and they have experienced more pleasant and positive feelings.

One of the advantages of ACT is teaching clients to experience their emotions and physical feelings without any avoidance and taking steps in the path of life based on values to change behavior. The explicit goal of ACT therapy is to reduce the effort for internal control and experiential avoidance, increase behavioral control, and the tendency to experience a wide range of emotions (Ferreira et al., 2022; Larsson, Hartley, & McHugh, 2022; Mokhtarinejad, Mirzaian, & Hassanzadeh, 2020). In this regard, the main goal of ACT treatment is to treat emotional avoidance, expand cognitive content, and create and maintain commitment to behavioral changes. Therefore, couples were able to reduce their sensitivities significantly and control with acceptance and concentration exercises, and as a result, their love schemas improved significantly (Hayes, 2004; Hayes et al., 2006).

The results showed that according to the RCI, the increase in adaptive emotional schemas and the decrease in maladaptive emotional schemas in all four couples of the couple therapy group based on acceptance and commitment

were significant and statistically confirmed. No research was found regarding the effectiveness of couple therapy based on acceptance and commitment to emotional schemas in couples with extramarital relationships. However, there are studies in line with the findings of this research on the effectiveness of couple therapy based on acceptance and commitment to emotional failure and intimacy of couples, fatigue and health-related quality of life, depression and anxiety disorders, health anxiety symptoms, and mental pressures (Araghi et al., 2020; Bond et al., 2011; Ferreira et al., 2022; Fishbein et al., 2022; Hamidi et al., 2022; Hasan Larijani, Hossein Sabet, & Borjali, 2020; Kazemeini et al., 2022; Mardani et al., 2023; Mokhtarinejad, Mirzaian, & Hassanzadeh, 2020; Sadeghi, Naeimeh, & Alivandvafa, 2021).

In explaining the research results, it can be said that ACT teaches people that we all suffer in life. All our thoughts, feelings, physical symptoms, desires, and memories are pure suffering. However, suppose we value them too much and highlight them. In that case, it causes impure suffering, which will be unpleasant for us, so we can live happily and be optimistic with cognitive dissonance. Optimism is not superficial positivity but optimistic people who solve problems, design plans for their activities, and act accordingly (Dew & Jackson, 2018; Yaghoobi, Toozandehjani, & Zendedel, 2021). Therefore, it can be said that optimistic people are more successful in solving their problems and problems in married life; they do not take a passive attitude towards problems and problems and have a more positive attitude towards each other. Moreover, in explaining this finding, it is necessary to mention the processes governing ACT, the most important of which is specifying values and committed action. An effective process of this treatment is to introduce an alternative to restraint, namely willingness and acceptance. The component of willingness and acceptance allows clients to accept unpleasant internal experiences without trying to control them, making those experiences seem less threatening and have less impact on the person's life (Hayes, 2004). Also, the mindfulness processes used in this therapy create a different perspective on mental events, allowing a person to observe and consider them as an event, not as a part of themselves (Hayes et al., 2006). Therefore, this treatment can effectively improve the conditions and performance of people with disorders and diseases due to its emphasis on accepting experiences and performing voluntary actions.

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Ethics principles

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

Declaration of Interest

References

- Acmed-Ismael, F. (2021). Metacognitive learning strategies: their effects on the reading comprehension performance of grade five pupils. *International Journal of Linguistics, Literature and Translation*, 4(5), 107-117. <https://doi.org/10.32996/ijllt.2021.4.5.10>
- Araghi, Y., Bazzazian, S., Amirmajd, M., & Ghamari, M. (2020). The Effectiveness of Acceptance and Commitment Based Approach on Decrease Alexitimya and Hopelessness of Divorced Demanding Couples. *Analytical-Cognitive Psychology*, 11(42), 83-97. <https://dori.net/dor/20.1001.1.28222476.1399.11.42.7.3>
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., Waltz, T., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior therapy*, 42(4), 676-688. <https://doi.org/10.1016/j.beth.2011.03.007>
- Dew, J., & Jackson, M. (2018). Commitment and relationship maintenance behaviors as marital protective factors during economic pressure. *Journal of Family and Economic Issues*, 39, 191-204. <https://doi.org/10.1007/s10834-017-9550-7>
- Edwards, E. R., Liu, Y., Ruiz, D., Brosowsky, N. P., & Wupperman, P. (2021). Maladaptive emotional schemas and emotional functioning: Evaluation of an integrated model across two independent samples. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 39, 428-455. <https://doi.org/10.1007/s10942-020-00379-8>
- Fallahian, H., Mikaeli, N., & Yousefi Moridani, M. (2019). Predicting meta-marital relationships based on love quality, couple conflict resolution styles, and marital commitment [Research]. *Family Pathology*, 5(1), 59-76. <http://fpcej.ir/article-1-229-en.html>
- Faustino, B., & Vasco, A. B. (2021). Emotional schemas mediate the relationship between emotion regulation and symptomatology. *Current Psychology*, 1-7. <https://doi.org/10.1007/s12144-021-01560-7>
- Ferreira, M. G., Mariano, L. I., de Rezende, J. V., Caramelli, P., & Kishita, N. (2022). Effects of group Acceptance and Commitment Therapy (ACT) on anxiety and depressive symptoms in adults: A meta-analysis. *Journal of affective disorders*, 309, 297-308. <https://doi.org/10.1016/j.jad.2022.04.134>
- Fincham, F. D., & May, R. W. (2017). Infidelity in romantic relationships. *Current opinion in psychology*, 13, 70-74. <https://doi.org/10.1016/j.copsyc.2016.03.008>
- Fishbein, J. N., Judd, C. M., Genung, S., Stanton, A. L., & Arch, J. J. (2022). Intervention and mediation effects of target processes in a randomized controlled trial of Acceptance and Commitment Therapy for anxious cancer survivors in community oncology clinics. *Behaviour Research and Therapy*, 153, 104103. <https://doi.org/10.1016/j.brat.2022.104103>
- Goudarzi, A., Keykhosrovani, M., Deyreh, E., & Ganji, K. (2022). The Effectiveness of Emotional Therapy on Marital Boredom and Moral Commitment in Divorced Couples [Research]. *Razi Journal of Medical Sciences*, 29(5), 117-126. <http://rjms.iuums.ac.ir/article-1-6545-en.html>
- Hamidi, M., Lotfi Kashani, F., Ahi, Q., & Hojjat, S. K. (2022). Comparison of the efficacy of acceptance and commitment therapy (ACT) and integrated approach on integrative self-knowledge among people with suicide attempts. *Journal of North Khorasan University of Medical Sciences*, 14(2), 75-85. <https://doi.org/10.52547/nkums.14.2.75>
- Hasan Larijani, M., Hossein Sabet, F., & Borjali, A. (2020). Effects of Acceptance and Commitment Therapy on Alexithymia in Patients with Multiple Sclerosis. *Middle Eastern Journal of Disability Studies*---, 10, 124. <http://dori.net/dor/20.1001.1.23222840.1399.10.0.117.6>
- Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior therapy*, 35(4), 639-665. [https://doi.org/10.1016/S0005-7894\(04\)80013-3](https://doi.org/10.1016/S0005-7894(04)80013-3)
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Herbert, J. D., & Forman, E. M. (2011). Acceptance and mindfulness in cognitive behavior therapy. *Acceptance and Mindfulness in Cognitive Behavior Therapy*. <https://doi.org/10.1002/9781118001851>
- Kansky, J. (2018). What's love got to do with it? Romantic relationships and well-being. *Handbook of well-being*, 1-24. nobascholar.com
- Kazemeini, S. E., Ranjbaripour, T., NezhadMohammad Nameghi, A., Sodagar, S., & Peyvandi, P. (2022). Comparison the effectiveness of Acceptance and Commitment therapy with Mindfulness-Based Cognitive therapy on Cognitive Emotion Regulation in Heart Failure Patients. *Journal of Assessment and Research in Applied Counseling*, 4(3), 11-18. <https://doi.org/10.52547/jarac.4.3.30>
- Khosroshahi, H., Mirzaian, B., & Hasanzadeh, R. (2019). Acceptance and Commitment Therapy on Illness Perception in Patients with Coronary Heart Disease [Original Research Article]. *Middle Eastern Journal of Disability Studies*---, 9(9), 85. <http://dori.net/dor/20.1001.1.23222840.1398.9.0.23.5>
- Kiaee Rad, H., Pasha, R., Asgari, P., & Makvandi, B. (2020). Comparison of the effectiveness of cognitive-behavioral therapy and schema therapy on extramarital relationships and domestic violence in women with emotional divorce. *Journal of psychologicalscience*, 19(96), 1667-1682. <http://psychologicalscience.ir/article-1-877-en.html>

- Larsson, A., Hartley, S., & McHugh, L. (2022). A randomised controlled trial of brief web-based acceptance and commitment Therapy on the general mental health, depression, anxiety and stress of college Students. *Journal of Contextual Behavioral Science*, 24, 10-17. <https://doi.org/10.1016/j.jcbs.2022.02.005>
- Leahy, R. L. (2002). A model of emotional schemas. *Cognitive and Behavioral Practice*, 9(3), 177-190. [https://doi.org/10.1016/S1077-7229\(02\)80048-7](https://doi.org/10.1016/S1077-7229(02)80048-7)
- Leahy, R. L. (2018). *Emotional schema therapy: Distinctive features*. Routledge. <https://doi.org/10.4324/9780203711095>
- Lişman, C. G., & Holman, A. C. (2021). Cheating under the circumstances in marital relationships: The development and examination of the propensity towards infidelity scale. *Social Sciences*, 10(10), 392. <https://doi.org/10.3390/socsci10100392>
- MacLeod, R., Elliott, R., & Rodgers, B. (2012). Process-experiential/emotion-focused therapy for social anxiety: A hermeneutic single-case efficacy design study. *Psychotherapy Research*, 22(1), 67-81. <https://doi.org/10.1080/10503307.2011.626805>
- Mardani, F., Yousefi, S. A., Ghorbani, E., & Mirzaei, Z. (2023). The effectiveness of realistic acceptance and commitment therapy (RACT) on marital burnout and alexithymia in couples. *Journal of Assessment and Research in Applied Counseling*, 5(1), 9-18. <https://doi.org/10.52547/jarac.5.1.10>
- Mokhtarinejad, O., Mirzaian, B., & Hassanzadeh, R. (2020). Comparison of the effectiveness of schema therapy and acceptance and commitment therapy on perception of disease and worry in patients with illness anxiety disorder [Research]. *Advances in Cognitive Sciences*, 22(3), 58-67. <https://doi.org/10.30699/icss.22.3.58>
- Nazari, R., & Meigooni, A. K. M. (2017). Structural model of perfectionism, psychological well-being and marital adjustment. *Journal of Applied Psychology*, 11(3), 144. https://apsy.sbu.ac.ir/index.php/article_96925_0a6913119a403f54f0fc2231825781ec.pdf
- Nenadić, I., Lamberth, S., & Reiss, N. (2017). Group schema therapy for personality disorders: a pilot study for implementation in acute psychiatric in-patient settings. *Psychiatry research*, 253, 9-12. <https://doi.org/10.1016/j.psychres.2017.01.093>
- Pilkington, P. D., Bishop, A., & Younan, R. (2021). Adverse childhood experiences and early maladaptive schemas in adulthood: A systematic review and meta-analysis. *Clinical Psychology & Psychotherapy*, 28(3), 569-584. <https://doi.org/10.1002/cpp.2533>
- Pugh, M. (2015). A narrative review of schemas and schema therapy outcomes in the eating disorders. *Clinical psychology review*, 39, 30-41. <https://doi.org/10.1016/j.cpr.2015.04.003>
- Rahimi, F., Atashpuor, H., & Golparvar, M. (2019). Divorce prediction based on individual beliefs of personality, basic needs and traps of life. *Knowledge & Research in Applied Psychology*, 20(2), 13-23. https://journals.iau.ir/article_665273_5471778e730a0eb183a0ae8cc516ac29.pdf
- Reinitz, C. (2018). Emotionally focused therapy for couples: A treatment for depression and anxiety. https://sophia.stkate.edu/msw_papers/838/
- Sadeghi, M., Naeimeh, M., & Alivandvafa, M. (2021). Effectiveness of Acceptance and Commitment Therapy (ACT) in Couple Burnout, Alexithymia, and Quality of Life of Women Affected by Marital Infidelity. *Journal of Applied Family Therapy*, 2(3), 73-91. <https://doi.org/10.22034/AFTJ.2021.296762.1146>
- Soltani, S., Khademi, A., Bakhshipour, A., & Alivandi Vafa, M. (2021). Causal modeling of vulnerability of extramarital relationships based on emotional schemas mediated by sexual function. *Women and Family Studies*, 14(52), 125-156. 0.30495/jwsf.2020.1912668.1510
- Stamps, W. E. (2020). *Treatment of infidelity as a clinical issue in couple therapy: a critical review of the literature*. Pepperdine University. <https://www.proquest.com/openview/55a190f558c8903b31f8d7a3ab482b0a/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Tajbakhsh, G. (2021). Analysis of the underlying factors of extramarital affairs. *Woman in Development & Politics*, 19(4), 595-614. https://jwdp.ut.ac.ir/article_85507_faef3b778b27e47ee84b38ac2853166c.pdf
- Van de Graaf, D., Trompeter, H., Smeets, T., & Mols, F. (2021). Online Acceptance and Commitment Therapy (ACT) interventions for chronic pain: A systematic literature review. *Internet Interventions*, 26, 100465. <https://doi.org/10.1016/j.invent.2021.100465>
- Veilleux, J. C., Chamberlain, K. D., Baker, D. E., & Warner, E. A. (2021). Disentangling beliefs about emotions from emotion schemas. *Journal of Clinical Psychology*, 77(4), 1068-1089. <https://doi.org/10.1002/jclp.23098>
- Yaarmohammadi Vasel, M., Mehrabi Pour, M., & Zoghipaidar, M. R. (2021). Prediction of Marital Burnout based on Types of Love Schemas and Marital Goal Orientations. *Journal of Modern Psychological Researches*, 16(62), 90-108. <https://dori.net/dor/20.1001.1.27173852.1400.16.62.7.2>
- Yaghoobi, H., Toozandehjani, H., & Zendedel, A. (2021). Comparison of the Effectiveness of Emotion-, Focused Therapy and Acceptance-, Commitment Therapy on Self-, Compassion in Women with Marital Conflict. *North Khorasan University of Medical Sciences*, 13(3), 112-122. <http://dx.doi.org/10.52547/nkums.13.3.113>