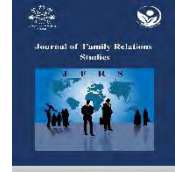




Contents lists available at <https://ecc.isc.ac/showJournal/39795>

Journal of Family Relations Studies

Journal home page: <http://jhfrs.uma.ac.ir/>



Research Paper

Comparing the effectiveness of acceptance and commitment therapy and schema therapy on alexithymia of divorced women referring to welfare organization



Sajjad Almadani Some'eh¹, Masoumeh Azemoudeh^{2*}, Reza Abdi³ & Seyyed Davoud Hoseini Nasab⁴

1. PhD Student of Psychology, Department of Psychology, Tabriz Branch, Islamic Azad University Tabriz, Iran.
2. Assistant Professor, Department Of Psychology, Tabriz Branch, Islamic Azad University, Tabriz Branch, Iran.
3. Associate professor, Department of Psychology, Azarbaijan Shahid Madani University, Tabriz, Iran.
4. Professor, Department Of Psychology, Tabriz Branch, Islamic Azad University, Tabriz Branch, Iran.



Citation: Almadani Some'eh, S., Azemoudeh, M., Abdi, R. & Hoseini Nasab, S.D. (2024). [Comparing the effectiveness of acceptance and commitment therapy and schema therapy on alexithymia of divorced women referring to welfare organization (Persian)]. *Journal of Family Relations Studies*, 4 (12): 4-14. <https://doi.org/10.22098/jfrs.2023.13725.1147>

doi 10.22098/jfrs.2023.13725.1147

ARTICLE INFO:

Received: 2023/09/23

Accepted: 2023/10/22

Available Online: 2024/02/15

Key words:

Acceptance and commitment therapy, Schema therapy, Alexithymia, Divorced women, Welfare Organization

ABSTRACT

Objective: Divorce is one of the stressful experiences of the family that can lead to conflict and incompatibility between couples. The aim of this research was to Comparing the effectiveness of acceptance, commitment therapy and schema therapy on alexithymia of divorced women referring to welfare.

Methods: The method of this research was semi-experimental with a pre- post-test design and a control group. The statistical population consisted of all women who referred to welfare organization of Tabriz in the second half of 2022-2023, from which 60 people were randomly assigned to two experimental groups and one control group (20 people in each group). Before and after acceptance and commitment therapy and schema therapy interventions, questionnaire Toronto alexithymia (TAS-20) by Taylor et al. (1997) were used to collect data, and multivariate analysis of covariance (MANCOVA) test was used for hypohese analysis.

Results: The results of the analysis of covariance showed that the significance level in all comparisons was less than 0.05, except for the difficulty in identifying emotions, that both interventions were effective on the variable of alexithymia and its two components ($p < 0.05$).

Conclusion: According to the results of the present study, there was a difference between the effectiveness of acceptance and commitment therapy and schema therapy in all dependent variable components, except difficulty identifying emotions, and the effectiveness of acceptance and commitment therapy was more than schema therapy.

1. Introduction

Divorced women are among the most vulnerable groups in society, who face mental, psychological, social, economic and cultural difficulties and disabilities (Abu-Ras & Itzhaki-Braun, 2023; Leys et al., 2020). Divorce is the most common manifestation of severe conflict, and in the end, more than half of the couples who seek counseling end up getting divorced

(Sabbah-Karkabi, 2022). According to official statistics in Iran, out of every 1000 marriages, about 200 cases lead to divorce (Abbasi & Omidvar, 2022). Therefore, divorce is the most important threat to the foundation of the family, and it is very important to pay attention to issues related to divorce and women who suffer from it (Chen et al., 2022).

*Corresponding Author:

Masoumeh Azemoudeh

Address: Assistant Professor, Department Of Psychology, Tabriz Branch, Islamic Azad University, Tabriz Branch, Iran.

E-mail: Mas_azemod@yahoo.com

After divorce, most of the divorced women experience a lack of self-confidence and feel weak in the face of problems. Blaming feelings among divorced women will not lead to any result other than feelings of disappointment and loss of self-confidence; As a result, this level of frustration and inability in self-esteem leads to isolation and distancing from their social activities (Aslanifar et al., 2018). In this regard, alexithymia is one of the topics considered by psychologists in relation to divorced women. Alexithymia is the inability to cognitively process emotional information as well as limitations in regulating emotions. Studies have shown that there is a significant relationship between alexithymia and low overall life satisfaction. On the other hand, alexithymia is related to poor quality of life among people (Yao et al., 2019).

Alexithymia is the inability to process cognitions and regulate emotions, which is associated with a large number of mental and physical disorders, as well as with cognitive regulation of emotions (especially in marital interpersonal interactions and in divorced women to improve conditions) (Zahrabnia et al., 2021). People with alexithymia have limited and weak imagination in life and focus thoughts on an external source instead of interpreting events (Schimmenti et al., 2017). It can be said that alexithymia is an emotional cognitive characteristic and the person suffering from it is unable to regulate and understand their own and others' emotions. When emotional information cannot be perceived and evaluated in cognitive processing, people are emotionally and cognitively confused and helpless, and this inability causes the organization of their emotions and cognitions to be disrupted (Luminet et al., 2006).

Alexithymia is a defect in the cognitive processing of emotional experience. It involves a disorder in the ability to construct mental representations of emotions. These representations are needed for the cognitive processing of emotional experiences and communicating them to others (Ogrodniczuk et al., 2018). Alexithymia has both a cognitive aspect (that is, the inability to identify, understand and interpret emotions) and an emotional aspect (that is, the inability to respond and express one's feelings) (Loas et al., 2015). Individuals with alexithymia overestimate abnormal physical stimuli, misinterpret emotional arousal, and express emotional distress through physical complaints (DiStefano & Koven, 2012). Divorced women have experienced more alexithymia due to improper interactions and are still struggling with it (Al-Shahrani & Hammad, 2023). Also, the researches of Rahmani et al. (2022), Besharat and Ganji

(2012) and Abbasi et al. (2018) showed that more alexithymia was reported in divorced women. In addition, the greatest harm in divorced women is from the side of alexithymia (Goerlich & Votinov, 2023; Khajeh & Khazari Moghadam, 2016). Therefore, there should be effective treatment methods to improve the psychological characteristics of these people (Nayeri et al., 2021).

In general, it can be said that divorce is one of the stressful experiences of the family, which can lead to conflicts and incompatibility between couples. In this regard, alexithymia causes unhealthy relationships, and failure to express emotional issues leads to divorce. As a result, divorced women will face these problems. In people who have more alexithymia, a significant decrease in emotional vocabulary is observed (Edwards et al., 2020), which can have a negative effect on a person's communication style.

Different forms of psychological treatments have been developed to solve the problems of people with conflict, which can be mentioned as behavioral therapy, interpersonal psychotherapy and cognitive therapy (Zolfaghari et al., 2021). In this research, treatment based on commitment and acceptance and schema therapy were used. Considering the importance of alexithymia in divorced women and this fact that psychological damage caused by divorce in women occurs chronically, be raised the need for psychological interventions (Tamborini et al., 2015). The mentioned cases and the new researches on the special society in the welfare organization and the problems that divorced women are facing, convinced the researchers to investigate the effectiveness of intervention strategies on rate of alexithymia. On the other hand, among various treatment solutions such as drug therapy, lubrication, behavioral therapy, etc., taking into account the fact that most people are against the use of drug therapy (Bratton et al., 2015) and the lack of new psychoanalytic solutions for solving all these problems and the time-consuming implementation of the psychoanalytic method, and of course, considering the results of studies that showed the ACT method is one of the most commonly offered treatments of the behavioral therapy (Viskovich & Pakenham, 2020), which is remarkably effective based on empirical evidence. (Ost, 2014; Ruiz, 2010), and it emphasizes on controlling the content of thoughts and emotions, and it is for people to be more aware of their decisions and be committed to them (McClure et al., 2020). Therapy based on acceptance and commitment is considered as one of the main interventions for understanding dysfunctional behavior patterns and problematic processes and creating healthier and more effective

behaviors and emotions (Arch et al., 2020). At the same time, its purpose is to recognize and reduce cognitive error, control the problem, and examine and analyze the problems logically (Sloshower et al, 2020). For this reason, the researcher felt obliged to evaluate the effectiveness of this in the society under his control. Therapy based on acceptance and commitment is based on relational framework theory (RFT), that is, a school whose research is based on language and cognition. RFT states that the logical skills of the human mind to solve problems may be ineffective in overcoming psychological pain, therefore, therapy based on acceptance and commitment was developed. The main goal of acceptance and commitment therapy is to develop psychological flexibility, that is, the ability to make practical choices between different options that are more appropriate (Forman & Herbert, 2008). The ultimate goal of this model is to improve interactions (in alexithymia) after trauma (such as divorce). In a number of their findings, researchers have confirmed the effectiveness of acceptance and commitment-based therapy, and the research results indicate the effectiveness of acceptance and commitment-based therapy in reducing alexithymia (Mardani et al., 2023; Khaledinia et al., 2021; Rafezi & Keshae, 2020) in divorced women.

Considering that one of the new interventions in the field of psychological problems and family injuries is the schema therapy approach (Tapia et al., 2018), the researcher compared and estimated the difference between the ACT method and another method that new research showed the emergence of a more fruitful method, it was decided to use the schema therapy method as a psychological treatment with great emphasis on replacing healthy schemas instead of maladaptive and pathological personality schemas (Renner et al., 2016). According to various researches, it can be said that schema therapy, as an integrated and new approach, is effective in explaining and treating marital problems (Young et al, 2015). Also, the approach of schema therapy through the use of dialectical strategies, validation, problem solving, cognitive style and client management, as well as through the reduction of disruptive and interfering behaviors with treatment and training of behavioral skills (interpersonal skills, emotional regulation skills) and mindfulness skills or pervasive awareness), helps a person to generalize them to his/her life situations in order to reduce his internal conflicts (Hakim & Crouch, 2017). Mohammadinezhad and Rabiei (2015) showed that the application of the schema therapy approach among divorced women led to the improvement of their quality of life (as a result, the reduction of alexithymia). In another study conducted by Shokhmgar (2016), it was shown that schema therapy is effective in reducing mental health problems and reducing

communication problems among couples and reducing emotional disturbances. Researchers have confirmed the effectiveness of schema therapy in a number of their findings, which research results indicate the effectiveness of schema therapy on reducing alexithymia (Feyzioğlu et al., 2022; Damavandi & Sadeghi, 2022; Ghasemi & Movahedi, 2022) in divorced women.

According to the above researches, the present study wanted to answer the question that among the methods of treatment based on acceptance and commitment (ACT) and schema therapy, which one is more effective on the alexithymia of divorced women who refer to welfare organization?

2. Materials and Methods

The present study was applied and quantitative research in terms of the purpose. Also, in terms of its implementation, it was a semi-experimental research with a pre-test-post-test design and a control group. The statistical population consisted of all the divorced women who referred welfare organization of Tabriz city in the second six months of 2022-2023, 60 people were obtained by purposive sampling and in two experimental and one control group (20 people in each group). (With considering gender, age range and educational and economic conditions). The entry criteria for people who were divorced and referring to welfare organization, having a minimum education, no remarriage, age range of 19 to 35 years, willingness to participate in research and obtaining a high score on the alexithymia scale approved by the medical commission of welfare organization, and of course active participation in training sessions. Not suffering from specific medical problems and addiction were exit criteria. Ethical considerations raised in the research included obtaining the consent of the subjects to participate in the research. In this research, the following scales were used to collect data:

Research instruments:

Toronto Alexithymia Scale (TAS-20): This 20-item scale was developed by Taylor et al. (1997) as a five-point likert scale with three subscales: difficulty in identifying emotions (seven items), difficulty in describing emotions (five items) and Objective-oriented thinking (eight items). Boyle et al. (2015) reported internal consistency for the subscales of difficulty in identifying feelings, difficulty in describing feelings, and objective thinking as 0.80, 0.76, and 0.71, respectively. For the overall scale as 0.86, and the internal consistency 0.84 were reported by Janik-McErlean and Lim (2020). In the Persian form, Cronbach's alpha coefficient for alexithymia was calculated as 0.85 and three subscales of difficulty

in identifying emotions, difficulty in describing emotions and focused thinking were calculated at 0.82, 0.75 and 0.73, which is a sign of good internal consistency of the scale. The concurrent validity of the Toronto scale of alexithymia according to the correlation between the subscales of this test and the scale of emotional intelligence was -0.86 (Besharat & Ganji, 2012). In the present study, the reliability of the alexithymia scale was reported as 0.86 using the

Cronbach's alpha method.

Group therapy intervention based on acceptance and commitment: The research was conducted by obtaining the necessary permits from the welfare organization of Tabriz city for the participating divorced women, and the experimental group was subjected to 15 sessions of 45 minutes group therapy based on acceptance and commitment. The control group did not receive any treatment.

Table 1. Acceptance and Commitment Therapy (ACT) group therapy sessions (Hayes & Strosahl, 2010)

Session	Content
The first session: introduction and order of the treatment session	1. Providing an opportunity for clients to get to know each other and the goals of treatment. 2. Establishing a therapeutic relationship and assessing the severity of problems and training based on awareness, under the title of "concentration training"
The second session: behavior change	Creating creative helplessness over past solutions through metaphor and questioning clients
The third session: practicing mindfulness and expressing values	1. Acceptance 2. Values 3. Homework
fourth Session	Clarifying values and examining obstacles
fifth meeting	Determining goals and introducing committed action
The sixth session	"Body scan" mindfulness practice
The seventh session	Completing the Valuable Routes form
The eighth session: Dissociation	Homework review, detachment from language threats
The ninth session	Mindfulness, homework
Tenth session: Committed action	Treatment review, committed practice
The eleventh session	Mindfulness
The twelfth session	Self-observation practice and assignments
Thirteenth session	Primary and secondary suffering, commitment and obstacles to the formation of satisfaction
The fourteenth session	Mindfulness in walking, assignments
15th meeting: end of meetings and conclusions	1. Clarification of values 2. Recurrence and events - preparation, not prevention 3. Farewell 4. Lifetime duty

Table 2. Schema therapy group therapy sessions taken from the book of Farrell and Shaw (2016)

Session	Content
First session	Schema therapy training sessions (welcome and acceptance of group, what is a schema and maladaptive coping mentality)
second session	schema therapy training sessions (vulnerable child mentality and angry child mentality)
third session	Schema therapy training sessions (punitive/blaming parent, healthy adult mentality and happy child mentality)
fourth Session	Twelve sessions of experimental work on mentalities (incompatible coping mentalities: experimental exercises)
fifth meeting	Twelve sessions of experimental work on mindsets (incompatible coping mindsets: playing the role of mindsets)
The sixth session	Twelve sessions of experimental work on mindsets (incompatible coping mindsets: the image of a safe place)
The seventh session	Twelve sessions of experimental work on mentalities (ineffective parent mentality: punishment and reinforcement)
The eighth session	Twelve sessions of experimental work on mentalities (the dysfunctional parent mentality: combating the punitive parent mentality)
The ninth session	Twelve sessions of experimental work on mentalities (the dysfunctional parent mentality: playing group roles to discuss mentalities)
tenth session	Twelve sessions of experimental work on mentalities (the dysfunctional parent mentality: combating the punitive parent mentality)

The eleventh session	Twelve sessions of experimental work on subjectivities (vulnerable child subjectivity: reconstruction of childhood experience and imagery)
The twelfth session	Twelve sessions of experimental work on mentalities (angry child mentality: anger exercises, mental imagery, mental role playing)
Thirteenth session	Twelve sessions of experimental work on mindsets (the mindset of a happy child: experimental exercises, fun for the mindset of a happy child, mental imagery)
The fourteenth session	Twelve sessions of experimental work on mentalities (healthy adult mentality: developing healthy adult mentality, physical exercises with mental awareness)
The fifteenth session	Twelve sessions of experimental work on mindsets (healthy adult mentality: playing the role of mindset, exchanging beads)

Schema therapy group intervention: The experimental group underwent 15 sessions of 45-minute in schema therapy group intervention once a week, and the control group did not receive any treatment.

In this research, after obtaining the necessary permits from welfare organization of Tabriz city for the use of divorced women in group therapy, they were referred to welfare and all sample subjects were initially pre-tested for alexithymia. Then both experimental groups underwent 15 sessions of intervention 45-minute. In the treatment group based on acceptance and commitment, the subjects received treatment based on acceptance and commitment as a group, and in the schema therapy group, the subjects received schema therapy as a group, and finally, the control group did not receive any treatment, and after the completion of the post-test sessions, alexithymia was performed for the subjects of all three groups. It should be noted that

after the completion of all research stages, the control group was subject to acceptance and commitment-based treatment or schema-therapy based on the consent of the individuals. The collected data were analyzed using MANCOVA multivariate analysis of covariance and SPSS 22 software

3. Results

Based on the findings of the demographic data, the number of 20 people in the intervention group of acceptance and commitment therapy, 20 people in the intervention group of schema therapy and 20 control people in the age range of 19 to 35 years, respectively, with an average (standard deviation) age of 28.91 (2.86), 29.24 (2.93) and 31.63 (3.32) participated in this research. All divorced women were between 1 and 6 months after their divorce. In Table 3, the mean and standard deviation of emotional dyslexia variable and its components were described.

Table 3. Mean and standard deviation of alexithymia and its components by group and time

Variable	Time	Acceptance and commitment group		Schema therapy group		control group	
		Mean	SD	Mean	SD	Mean	SD
Difficulty identifying emotions	pre-test	26/15	0/95	28/20	0/67	24/35	0/97
	post-test	15/70	0/85	13/95	0/73	23/40	0/84
Difficulty describing feelings	pre-test	20/35	0/59	23/40	0/62	25/95	0/61
	post-test	11/50	0/65	12/85	0/79	24/45	0/69
Objective thinking	pre-test	27/50	1/30	30/15	1/17	27/50	0/84
	post-test	14/60	0/51	20/70	0/58	25/90	0/82
Alexithymia (Total)	pre-test	64/35	3/11	63/90	2/32	54/25	1/73
	post-test	40/10	1/27	44/60	1/74	53/03	1/96

Table 3 shows that in both intervention groups (acceptance and commitment and schema therapy), the post-test average of all components of alexithymia decreased in the post-test compared to the pre-test, but in the acceptance and commitment group, there was a greater decrease than in the schema therapy group. In Table 4, the effectiveness of two interventions, acceptance and commitment and schema therapy, on

alexithymia and its components was tested by analysis of covariance. Before performing the analysis of covariance, the result of multivariate Wilks lambda test ($P=0.001$ and $V=0.471$) was given. Also, the value of Mbox test was equal to 16.07, the corresponding significance level was equal to 0.163, and the assumption of homogeneity of variance-covariance matrices was established ($p<0.001$).

Table 4. The results of the analysis of covariance in order to compare the effectiveness of the two interventions of acceptance and commitment and schema therapy on the scale of alexithymia and its components

Source of change	The dependent variable	Sum of squares	Degrees of freedom	Mean square	F	P	Effect size
Group	Difficulty identifying emotions	10/72	1	10/72	0/82	0/36	0/024
	Difficulty describing feelings	37/88	1	37/88	3/94	0/05	0/104
	Objective thinking	188/75	1	188/75	30/00	0/001	0/469
	Alexithymia	404/81	1	404/81	11/82	0/002	0/258

The results of Table 4 showed that there was a significant difference in the effectiveness of the two intervention methods of acceptance and commitment and schema therapy on the overall score of alexithymia, and based on this, the effect of the two interventions on alexithymia was different ($p < 0.05$). Also, according to the results, the effectiveness of the two interventions on the two components of difficulty in describing feelings and objective thinking was

statistically different in the two groups ($p < 0.05$). In addition, in the component of difficulty in identifying emotions, there was no statistical difference in the effectiveness of the two interventions ($p = 0.36$).

Table 5 shows the adjusted average of the components of alexithymia (post-test average after controlling or neutralizing the pre-test scores of the groups) in order to determine and identify a more effective intervention.

Table 5. Comparison of the adjusted means of the alexithymia scale and its components in the groups with the LSD test

Variable	Group	Adjusted mean	Standard error	Lower limit	Upper limit	Mean difference	P
Difficulty identifying emotions	ACT	15/44	0/888	13/64	17/24	1/24	0/36
	ST	14/20	0/888	12/40	16/01		
Difficulty describing feelings	ACT	11/01	0/764	9/45	2/56	2/33	0/05
	ST	13/34	0/764	11/78	14/89		
Objective thinking	ACT	15/04	0/619	13/79	16/30	5/20	0/001
	ST	20/25	0/619	18/99	21/50		
Alexithymia	ACT	38/54	1/44	35/60	41/47	7/61	0/002
	ST	46/15	1/44	43/22	49/09		

The adjusted averages in Table 5 showed that the adjusted average of total alexithymia in the acceptance and commitment group was 38.54 and 46.15. According to the results, the effectiveness of the acceptance and commitment intervention was significantly higher than schema therapy group. The intervention of acceptance and commitment was able to further reduction the level of Alexithymia ($p < 0.05$). Also, the effectiveness of the acceptance and commitment intervention on the two components of difficulty in describing feelings and objective thinking was significantly higher than the schema therapy intervention ($p < 0.05$). In addition, in the component of difficulty in identifying emotions, there was no statistical difference in the effectiveness of the two interventions ($p = 0.36$).

4. Discussion and Conclusion

The purpose of the current research was to determine the difference in the effectiveness of acceptance and commitment therapy and schema therapy on alexithymia of divorced women referring to welfare organization. The findings of the research showed that there is a difference between the effectiveness of the treatment based on acceptance and commitment and schema therapy on the alexithymia of divorced women referring to welfare organization. The effectiveness of the treatment based on acceptance and commitment was greater than that of schema therapy (just under the difficulty component, there was no difference between the interventions in the identification of emotions). Regarding the comparison of the effectiveness of acceptance and commitment-based therapy and

schema therapy on alexithymia, no research has been done, and what has been implemented so far has been to confirm or reject the effectiveness of these two interventions. In general, the results of this research are consistent with the researches of [Mardani et al. \(2023\)](#), [Khaledinia et al. \(2021\)](#), [Ost \(2014\)](#), [Ruiz \(2010\)](#), [Rahmani et al. \(2022\)](#), [Furman and Herbert \(2008\)](#), [Rafezi and Keshae \(2020\)](#) and [Morvaridi \(2017\)](#). In this regard, the research of [Dasht Bozorgi and Rostami \(2019\)](#) showed that therapy based on acceptance and commitment is effective in reducing alexithymia. Also, [Rahmani et al. \(2021\)](#) showed that therapy based on acceptance and commitment can reduce the alexithymia of divorced women so that they can adapt to new life conditions. In addition, the research of [Mardani et al. \(2023\)](#) and [Khaledinia et al. \(2021\)](#) showed that therapy based on acceptance and commitment can reduce the alexithymia of couples with tension in their lives (and possibly divorcees) and improve their relationships.

In the explanation above, it can be said that treatment based on acceptance and commitment can be used as a new approach based on principles such as acceptance, commitment, mindfulness, forgiveness, commitment in performance, mental ideological patterns of these people and has been developed as third-wave cognitive therapy by Hayes, which combines behavioral principles, mindfulness, and acceptance ([Puolakanaho et al., 2019](#)). The goal of this therapy is helping clients achieve a more valuable and satisfying life through increasing psychological flexibility, and it has six central processes: cognitive dissonance, acceptance, connection with the present,

self as context, values, and committed action. (Amiri et al, 2021). In other words, it helps a person to show more flexibility to choose available options instead of avoiding unpleasant thoughts, emotions or memories (Hosseini Nik & Islamzadeh, 2019). Ghaznavi and Pouraziz Abouzar (2022) showed that therapy based on acceptance and commitment had a positive effect on emotional stability and alexithymia of people. In addition, the research of Bagheri et al. (2023) showed that treatment based on acceptance and commitment in nurses with chronic back pain significantly reduces anxiety, cognitive sensitivity and alexithymia (difficulty in identifying emotions, difficulty in describing feelings and objective thinking).

The studies of Garnefski et al. (2005) also show that during psychological distress, people have difficulty in regulating their emotions (or alexithymia) when faced with stressful life situations. Sobhi Gharamaleki et al. (2015) found the regulation training (as a result of alexithymia) significantly reduces the symptoms of stress, anxiety and depression. In a research, Gross & Thompson (2007) have been shown the negative relationship between difficulty in regulating emotions with well-being and mental health. Also, in the research of Jafari Nodoushan et al. (2015), it was found that divorced women with anxiety experiences are at lower levels of emotion regulation, adaptability and mental health than married women without these experiences. It can be said that divorced women are facing many psychological, social and emotional problems and injuries. The sum of these pressures causes tension in various dimensions and makes it difficult to regulate their emotions (Shoshtari et al., 2016).

In this regard, the intervention of schema therapy, which had the same effect in one of the sub-components of emotion regulation with therapy based on acceptance and commitment, researches that have been carried out so far in the field of emotional schema therapy, show the effectiveness of this treatment model (Rezaei et al., 2016; Emam Zamani et al., 2019, Morvaridi, 2017, Erfan et al., 2016, Naderi et al., 2015).

In explaining the mentioned result, it can be said that schema therapy is a new and integrated therapy, and it is mainly based on classical cognitive-behavioral therapy methods, and its emphasis is more on the evolutionary roots of psychological problems in childhood and adolescence, the use of motivational techniques and presenting the concept coping styles. Schema therapy is a combination of the foundations of cognitive-behavioral schools, gestural attachment, object relations, constructivism, and smooth

functioning (Young, 2004). For example, Arntz et al. (2022) investigated the effectiveness of group and individual schema therapy and other cognitive therapy methods in a research. Schema therapy, both individually and in groups, had a more positive effect on borderline personality disorder than other methods of cognitive therapy. Also, the follow-up of the effectiveness of the interventions after three years showed that schema therapy has a lasting effectiveness compared to other treatments. Schema therapy has been developed to treat chronic and treatment-resistant patients and patients who have personality disorders or those who have chronic cognitive behavioral problems and cannot receive help well from classical cognitive behavioral therapy (Young, 2004). Therefore, under the influence of structuralism, Young established schema therapy, which targets personality disorders and other chronic disorders. Experience has shown that schema therapy has been effective in the treatment of long-term depression and anxiety, eating disorders, marital emotional issues, and stable problems in maintaining intimate, compatible relationships and even incorrect expression of emotions (alexithymia) and effective in relapse prevention among drug abusers (Joshua et al, 2023). Schema restoration is the main goal of schema therapy and because a schema includes a set of memories, emotions, bodily sensations and cognitions. Therefore, all these elements should be modified in the restoration of the schema. Schema change includes behavior change and teaches the patient to replace maladaptive coping styles with healthier and more compatible behavior patterns (Young, 2004). Therefore, according to the mentioned aligned researches and theoretical approaches, schema therapy has the greatest impact on the variables that are rooted in the person's past and childhood and his/her incompatible schemas, which some researches have also confirmed this result; Schema-therapy by replacing compatible schemas instead of incompatible schemas improves and regulates the emotions and emotional fluctuations of divorced women; Also, when the compatible schemas form the dominant schemas of the person, he can show more adaptability in dealing with the inappropriate emotional situation and the person's alexithymia compared to the situation where the incompatible schemas of his dominant schemas were, will decrease. In general, the results indicated the effectiveness of the treatment based on acceptance and commitment on the reduction of alexithymia and its components (there was no difference between the interventions just in the sub-component of difficulty in identifying emotions). In other words, this method of treatment has

significantly reduced the alexithymia of divorced women referring to welfare organization. Therefore, this treatment method can be used as an effective and practical intervention method in treatment centers and clinics in order to improve the performance of divorced women. Finally, non-implementation of follow-up due to time constraints, small number of samples and targeted sampling method were the limitations of the present study. It is suggested that in order to increase the generalizability of the findings, similar researches should be conducted with considering long-term follow-up periods, larger number of samples and using random sampling. According to the findings, it is suggested that the treatment intervention based on acceptance and commitment be used as a beneficial intervention to improve and reduce the alexithymia of divorced women in welfare organization and medical centers.

5. Ethical Considerations

Compliance with ethical guidelines

All ethical principles were considered in this article. The participants were informed about the objective of the research and its implementation phases. They were also assured about the confidentiality of their information and were allowed to leave the study whenever they wished. Moreover, if they desired, the research results would be available to them.

Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

Authors' contributions

All authors participated in the design, implementation and writing of all sections of the present study.

Conflicts of interest

The authors declare that there is no conflict of interest in this article.

Acknowledgments

This article is extracted from the specialized doctoral thesis of the first author in Tabriz Branch, Islamic Azad University, Tabriz, Iran" and has the code of ethics IR.IAU.TABRIZ.REC.1401.307 from the Ethics Committee of Tabriz Islamic Azad University Medical Sciences Branch. We express our thanks and appreciation to the honorable directorate of Tabriz welfare organization admission and all those who helped us in this research.

References:

Abbasi, M. & Omidvar, S. (2022). *Statistical Yearbook of June 1401*. Tehran: Publications of the Civil Registration Organization of the country. <https://www.sabteahval.ir/home>

- Abbasi, M., Dargahi, S., & Ghasemi jobaneh, R.. (2018). The role of cognitive failure and alexithymia in marital conflicts of women who apply for divorce. *Journal of Shahrekord University of Medical Sciences*, 20(1), 1-6. SID. <https://sid.ir/paper/58816/en>
- Abu-Ras, R., & Itzhaki-Braun, Y. (2023). The complex role of the community in the determination of well-being and hope among divorced Muslim women. *Journal of Community Psychology*, 32(5), 21-32. Doi:10.1002/jcop.23037
- AL-shahrani, H., Hammad, M.A. (2023). Relationship between emotional divorce and alexithymia among married women in Saudi Arabia, *BMC Psychology*, 11 (217), 204. Doi:10.1186/s40359-023-01236-w
- Amiri S, Ehtesham Zadeh P, Hafezi F, Borna M R. (2021). Comparison of the Effectiveness Behavioral Activation Treatment Therapy and Acceptance and Commitment Therapy on Executive Functions of Learning the Rules, Inhibiting Impulsivity, and Flexibility in Patients with Depression. *Shefaye Khatam*. 9(2): 68-78. <http://shefayekhatam.ir/article-1-2123-en.html>
- Arch, J., Fishbein, J., Ferris, M., Mitchell, J., Levin, M., Sliwyak, E., Andorsky, D., & Kutner, S. (2020). Acceptability, feasibility, and efficacy potential of a Multimodal acceptance and commitment therapy intervention to address psychosocial and advance care planning needs among anxious and depressed adults with metastatic cancer. *Journal of Palliative Medicine*, 11(5), 540-555. Doi:10.1089/jpm.2019.0398
- Arntz, A., Jacob, G. A., & Lee, C. W. (2022). Effectiveness of Predominantly Group Schema Therapy and Combined Individual and Group Schema Therapy for Borderline Personality Disorder: A Randomized Clinical Trial. *JAMA Psychiatry*;79(4):287-299. Doi:10.1001/jamapsychiatry.2022.0010
- Aslanifar E, Bahrami H, Asadzadeh H. (2018). The effectiveness of positive group therapy in promoting resilience and self-esteem of divorced women. *Cultural Education of Women and Families*. 12(42):97-111. <https://sid.ir/paper/262337/en>
- Bagheri Sheykhgafshe F, Fathi-Ashtiani A, Savabi Niri V, Rezaei Golezani H, Baryaji S. (2023). The Effectiveness of Acceptance and Commitment Therapy on Anxiety Sensitivity and Alexithymia of Nurses with Chronic Low Back Pain. *TB*; 21 (5): 49-63 <http://tbj.ssu.ac.ir/article-1-3434-fa.html>
- Besharat, M. A., & Ganji, P. (2012). The moderating role of attachment styles on the relationship of alexithymia with marital satisfaction. *Journal of Fundamentals of Mental Health*, 14(56), 35-324. Doi: 10.22038/jfmh.2012.891
- Boyle, G. J., Saklofske, D. H., & Matthews, G. (2015). *Measures of personality and social psychological constructs*. London: Academic Press. www.sciencedirect.com/book/9780123869159

- Bratton, S., Ray, de., Rhine, Ta., & Jones, Le. (2015). The Efficacy of Play Therapy with Children: A Meta-Analytic Review of Treatment Outcomes. *Professional Psychology: Research and Practice*, 36(4): 376-390. Doi:10.1037/0735-028.36.4.376
- Chen, I., Niu, Sh., Yeh, Y., Chen, I., & Kuo, Sh. (2022). Psychological distress among immigrant women who divorced: Resilience as a mediator. *Archives of Psychiatric Nursing*, 39(2), 1-6. Doi:10.1016/j.apnu.2021.11.006
- Damavandi, M., & Sadeghi, S. (2022). Prediction of Cognitive Emotion Regulation Strategies Based on Early Maladaptive Schemas and Alexithymia. *Mental Health: Research and Practice*, 1(2), 10-19. Doi:10.22034/mhrp.2022.350241.1015
- Dasht Bozorgi, Z., & Rostami, R. (2019). Effectiveness of Acceptance and Commitment Therapy on Resiliency and Alexithymia of Somatic Symptoms. *Journal of Practice in Clinical Psychology*, 7(2), 87-94. Doi:10.32598/jpcp.7.2.87
- Distefano, R. A., & Koven, N. S. (2012). Dysfunctional emotion processing may explain visual memory deficits in alexithymia. *Personality and Individual Differences*, 52(5), 611-5. Doi:10.1016/j.paid.2011.12.007
- Edwards, E. R, Shivaji, S., Micek, A., & Wupperman, P. (2020). Distinguishing alexithymia and emotion differentiation conceptualizations through linguistic analysis. *Pers Individ Dif*. 157:109801. Doi:10.1016/j.paid.2019.109801
- Emam Zamani, Z., Mashhadi, A., & Sepehri Shamloo, Z. (2019). The Effectiveness of Group Therapy Based on Emotional Schema Therapy on Anxiety and emotional schemas on Women with Generalized Anxiety Disorder. *Research in Clinical Psychology and Counseling*, 9(1), 5-24. Doi: 10.22067/ijap.v9i1.69238
- Erfan, A., Noorbala, AA., Karbasi Amel, S., Mohammadi, A., Adibi, P. (2018). The Effectiveness of Emotional Schema Therapy on the Emotional Schemas and Emotional Regulation in Irritable Bowel Syndrome: Single Subject Design. *Advanced Biomedical Research:Wolters Kluwer-Medknow*. Doi:10.4103/abr.abr_113_119
- Farrell, J. and Shaw, A. (2016). *Group schema therapy*. Translated by Leila Porsmer. Tehran: Arajmand Publications. www.arjmandpub.com
- Feyzioğlu, A., Taşloğlu Saymer, A.C., & Özçelik, D. et al. (2022). The mediating role of early maladaptive schemas in the relationship between early childhood trauma and alexithymia. *Curr Psychol*. 21(2), 52-61. Doi:10.1007/s12144-022-02988-1
- Forman, E. M., Herbert, J. D. (2008). New directions in cognitive behavior therapy: acceptance based therapies, cognitive behavior therapy: Applying empirically supported treatments in your practice, Hoboken, new jersey: wiley, 3(1): 263-265. https://psycnet.apa.org/record/2009-02305-005
- Garnefski, N., Baan, N., & Kraaij, V. (2005). Psychological distress and cognitive emotion regulation strategies among farmers who fell victim to the foot-and-mouth crisis. *Personality and Individual Differences*, 38(6), 1317-1327. Doi:10.1016/j.paid.2004.08.014
- Ghaznavi, S., & Pouraziz Abouzar, P. (2022). The effect of acceptance and commitment therapy on emotional stability and alexithymia in female students. *Social Determinants of Health*, 8(1),1-11. Doi:10.22037/sdh.v8i1.37673
- Ghasemi F, Movahedi Y. (2022). The effectiveness of schema therapy on rumination, cognitive fusion, cognitive avoidance and neurocognitive processing in couples applying for divorce. *IJRN*; 9 (1): 64-74. http://ijrn.ir/article-1-643-fa.html
- Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.). *Handbook of emotion regulation* (pp. 3-24). New York: Guilford Press. https://psycnet.apa.org/record/2007-01392-001
- Goerlich, K. S., & Votinov, M. (2023). Hormonal abnormalities in alexithymia. *Front. Psychiatry*, 13, 21-29. Doi:10.3389/fpsy.2022.1070066
- Hakim, E . & Crouch , T. (2017). Adaptation of behavioral activation in the treatment of chronic pain. *American Psychological Association*; 54, 3: 237-244. Doi:10.1037/pst0000112
- Hayes, S C, Strosahl, K D. (2010). *A practical guide to acceptance and commitment therapy*, New York: Springer Press. https://link.springer.com/book/10.1007/978-0-387-23369-7
- Hosseini Nik S, Islamzadeh A. (2019). The effectiveness of group cognitive behavioral training on improving posttraumatic symptoms, quality of life, self-esteem and marital satisfaction of women facing marital infidelity. *Women's Research Journal*. 10(27): 53-71. Doi:10.30465/ws.2019.4040
- Janik McErlean, A. B., & Lim, L. X. C. (2020). Relationship between parenting style, alexithymia and aggression in emerging adults. *Journal of family issues*, 41(6), 853-874. Doi:10.1177/0192513X19886647
- Jafari Nodoushan, A., Zare, H., Hosseini, A., Poorsalehi, M., & et al. (2015). Review and compare mental health and adjustment and cognitive emotion regulation divorced women, married women in Yazd city. *Journal of women and society*, 2, 1-13. Dor:20.1001.1.20088566.1394.6.22.1.2
- Khaledinia A, Makvandi B, Asgari P, Pasha R. (2021). Comparison of group psychotherapy effectiveness based on acceptance and commitment therapy matrix with group behavioral activation therapy on quality of life and alexithymia in depress mood females. *Women's Health Bulletin*. 8(1):26-36. Doi:10.30476/whb.2021.87951.1082
- khajeh F, Khezri Moghadam N. (2016). The Relationships between Alexithymia and Interpersonal Problems with Marital Satisfaction in Married Female Nurses of the Public Hospitals in Kerman City. *Nursing and Midwifery Journal*; 14 (7):630-638. http://unmf.umsu.ac.ir/article-1-2848-fa.html

- Joshua, P. R., Lewis, V., Kelty, S. F., & Boer, D. P. (2023). Is schema therapy effective for adults with eating disorders? A systematic review into the evidence. *Cogn Behav Ther*; 52(3): 213-231. Doi:10.1080/16506073.2022.2158926
- Leys, C., Arnal, C., Kotsou, I., Van Hecke, E., & Fossion, P. (2020). Pre-eminence of parental conflicts over parental divorce regarding the evolution of depressive and anxiety symptoms among children during adulthood. *J Trauma Dissociation*. 4(1):100102. Doi:10.1016/j.ejtd.2019.02.005
- Luminet O, Vermeulen N, Demaret C, Taylor GJ, Bagby RM. (2006). Alexithymia and levels of processing: Evidence for an overall deficit in remembering emotion words. *J Res Personal*. 40(5):713-33. Doi:10.1016/j.jrp.2005.09.001
- Loas, G., Baelde, O., & Verrier, A. (2015). Relationship between alexithymia and dependent personality disorder: a dimensional analysis. *Psychiatry Research*, 225(3), 484-8. Doi:10.1016/j.psychres.2014.11.062
- 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. Doi:10.52547/jarac.5.1.10
- Morvaridi Farimani, M. (2017). *The Effectiveness of Emotional Schema Therapy Based Group Therapy on Reducing Anxiety Sensitivity and Enhancing Emotional Ordering in Women with Social Anxiety*. Master's Thesis, Ferdowsi University of Mashhad. Doi:10.1007/s41811-018-0037-6
- Mohammadinezhad, B., Rabiei, M. (2015). The effect of schema therapy on quality of life and psychological well-being in divorced women. *Journal of Police Medicine*; 4(3): 179-190. <http://jpmmed.ir/article-1-389-en.html>
- McClure, J. B., Bricker, J., Mull, K., & Heffner, J. L. (2020). Comparative Effectiveness of Group-Delivered Acceptance and Commitment Therapy versus Cognitive Behavioral Therapy for Smoking Cessation: A Randomized Controlled Trial. *Nicotine and Tobacco Research*, 22 (3), 354-362. Doi:10.1093/ntr/nty268
- Naderi, Y., Moradi, A., Ramezanzade, F., & Vaghefnejad, M. (2015). Emotional Schemes (EST) in Patients with (PTSD): As A Risk Factor in PTSD. *Journal of Clinical Psychology Studies*, 6(22), 2-22. Doi:10.22054/jcps.2016.3888
- Nayeri A, Nooranipour R, Navabinejad S. (2021). Effectiveness of cognitive behavioral psychodrama group therapy on reducing the interpersonal problems and emotional regulation difficulties in divorced women. *Journal of Psychological Science*. 20(99), 427-438. <http://psychologicalscience.ir/article-1-953-en.html>
- Ogrodniczuk, J. S., Kealy, D., Joyce, A. S., & Abbass, A. A. (2018). Body talk: Sex differences in the influence of alexithymia on physical complaints among psychiatric outpatients. *Psychiatry Research*, 261, 168-72. Doi:10.1016/j.psychres.2017.12.072
- Ost L. G. (2014). The efficacy of acceptance and commitment therapy: An updated systematic review and meta-analysis. *Behav Res Ther*; 61: 105-21. Doi:10.1016/j.brat.2014.07.018
- Puolakanaho, A., Lappalainen, R., Lappalainen, P., Muotka, J., Hirvonen, R., Eklund, M., & Kiuru N. (2019). Reducing stress and enhancing academic buoyancy among adolescents using a brief web-based program based on acceptance and commitment therapy: A randomized controlled trial. *Journal of youth and adolescence*. 48(2): 287-305. Doi:10.1007/s10964-018-0973-8
- Tapia, G., Perez-Dandieu, B., Lenoir, H., Othily, E., Gray, M. & Delile, J. M. (2018). Treating addiction with schema therapy and EMDR in women with co-occurring SUD and PTSD: A pilot study. *Journal of Substance Use*; 23 (2), 199-205. Doi:10.1080/14659891.2017.1378743
- Rahmani, F., Sohrabi, F., Asadzadeh, H., & Nasrollahi, B.. (2021). Effects of Acceptance and Commitment Therapy on Alexithymia, Resilience, and Mental Wellbeing in Divorced Women. *Middle Eastern Journal of Disability Studies*, 11,(119), 2-11. SID. <https://sid.ir/paper/1030228/en>
- Rahmani F, Sohrabi Smrud F, Asadzadeh H, Nasrollahi B. (2022). Investigating the Effectiveness of Positive Thinking Group Therapy on Alexithymia, Resilience, and Mental Well-Being of Divorced Women. *MEJDS*; 12 :163-163. <http://jdisabilstud.org/article-1-2175-fa.html>
- Rafezi Z, Keshae M. (2020). The Effectiveness of Acceptance and Commitment Therapy on Increasing Intimacy and Marital Adjustment of Patients with Substance Use Disorders. *JPMed*; 9 (2). <http://jpmmed.ir/article-1-811-en.html>
- Renner, F., Arntz, Ar., Peeters, P. M. L., Lobbestael, Ji. Huibers, J. & Marcus. H. (2016). Schema therapy for chronic depression: Results of a multiple single case series. *Journal of Behavior Therapy and Experimental Psychiatry*. 51: 66-73. Doi:10.1016/j.jbtep.2015.12.001
- Rezaei, M., Ghazanfari, F., & Rezaee, F. (2016). Effectiveness of emotional schema therapy on severity of depression and rumination in people with major depressive disorder. *J Shahid Sadoughi Univ Med Sci*, 24(1), 41-56. <http://jssu.ssu.ac.ir/article-1-3532-en.html>
- Ruiz FJ.(2010). A review of acceptance and commitment therapy (ACT) empirical evidence: correlational, experimental psychopathology, component and outcome studies. *International Journal of Psychology and Psychological Therapy* 2010; 10(1):125-62. <https://www.ijpsy.com/volumen10/num1/256.html>
- Sabbah-Karkabi, M. (2022). Marriage was not an option: Ethnoreligious mixed marriage in Israel. *Ethnic and Racial Studies*, 45(1), 47– 68. Doi:10.1080/01419870.2021.1905864

- Schimmenti A, Passanisi A, Caretti V, La Marca L, Granieri A, Iacolino C, et al. (2017). Traumatic experiences, alexithymia, and Internet addiction symptoms among late adolescents: A moderated mediation analysis. *Addict Behav.* 64:314-20. Doi:10.1016/j.addbeh.2015.11.002
- Shoshtari, A., Rezaee, A., & Taheri, A. (2016). Effectiveness of cognitive-behavioral group therapy on emotional regulation, meta-cognitive beliefs and rumination of divorced women. *Journal of Principles of Mental Health, 18*(6), 321-328. Doi:10.22038/jfmh.2016.7792
- Shokhmgar, Z. (2016). Effectiveness of schema therapy in reducing Mental health problems caused by extramarital relationships in couples. *Quarterly Journal of Health Breeze, 5*(1), 1-7. https://jfh.sari.iau.ir/article_654229.html?lang=en
- Sloshower, J., Guss, J., Krause, R., Wallace, R. M., Williams, M. T., Reed, S., & Skinta, M. D. (2020). Psilocybin-assisted therapy of major depressive disorder using Acceptance and Commitment Therapy as a therapeutic frame. *Journal of Contextual Behavioral Science, 15*, 12-19. Doi:10.1016/j.jcbs.2019.11.002
- Sobhi Gharamaleki, N., Porzour, P., Aghajani, S., & Narimani, M. (2015). Effectiveness of training focused on emotional regulation on reducing symptoms of stress, anxiety and depression of students. *Journal of Education and Health Promotion, 3*,5-13. <http://journal.ihepsa.ir/article-1-234-en.html>
- Taylor, G. J., Bagby, R.M., & Parker, J. D. A. (1997). *Disorders of affect regulation: Alexithymia in medical and psychiatric illness*. New York: Cambridge University Press.
- Doi:10.1017/CBO9780511526831
- Tamborini, C. R., Couch, K. A. and Reznik, G. L. (2015). Long-term impact of divorce on women's earnings across multiple divorce windows: A life course perspective. *Advances in Life Course Research, 26*:44-59. Doi:10.1016/j.alcr.2015.06.001
- Viskovich, S., & Pakenham, K. I. (2020). Randomized controlled trial of a web based Acceptance and Commitment Therapy (ACT) program to promote mental health in university students. *Journal of Clinical Psychology, 76* (6), 929-951. Doi:10.1002/jclp.22848
- Yao, Z., Xuan, Y., & Zhu, X. (2019). Effect of experience information on emotional word processing in alexithymia. *J Affect Disorder. 259*:251-8. Doi:10.1016/j.jad.2019.08.068
- Young J. E. (2004). *Schema Therapy: Conceptual Model*. Available in: www.Therapist.training.com.au/young.pdf
- Young, J. E., Klosko, J. S &. Weishaar, M. E. (2015). Translated by Hamidpoor, H & Andoz, Z. *Schema Therapy: A Practical Guide*, Tehran: Arjmand. <https://www.arjmandpub.com/>
- Zahrabnia E, Sanaei Zaker B, Kiamanesh A, Zaharakar K. (2021). The Effects of Emotion-Focused Therapy on Post-Divorce Adjustment and Emotion Regulation in Divorced Women. *MEJDS; 11* :113-113. <http://jdisabilstud.org/article-1-2642-en.html>
- Zolfaghari M, Nikooei F, Shahbazi Seyed Ahmadiyani A, Kohanroozamiri S. (2021). The Effectiveness of Acceptance and Commitment-Based Therapy on Psychological Flexibility and Quality of Life of Divorced Women. *MEJDS; 11*: 208-208 URL: <http://jdisabilstud.org/article-1-2737-fa.html>

پژوهشگاه علوم انسانی و مطالعات فرهنگی
رتال جامع علوم انسانی