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The Effectiveness of Group Acceptance and Commitment Therapy and Cognitive Therapy on Alexithymia and Marital Boredom, Case study: Women Affected by Marital Infidelity in Mashhad, Iran

Maryam Sadeghi [1], Naeimeh Moheb [*2], Marziyeh Alivandi Vafa [3]

1. PhD student of General Psychology, Department of Psychology, Tabriz Branch, Islamic Azad University, Tabriz, Iran
2. *Assistant Professor of Clinical Psychology, Department of Clinical Psychology, Faculty of Medicine, Tabriz Medical Sciences, Islamic Azad University, Tabriz, Iran*
3. Assistant Professor of Psychology, Department of Psychology, Tabriz Branch, Islamic Azad University, Tabriz, Iran

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Corresponding Author:
Naeimeh Moheb
moheb.n@yahoo.com

ABSTRACT

Introduction: The aim of current paper was to compare the effectiveness of acceptance and commitment group therapy (ACT) and group cognitive therapy (GCT) on Alexithymia and marital boredom (MB) among women affected by marital infidelity in Mashhad.

Method: This clinical trial was a double- blind study with a pretest-posttest design in which two intervention groups and one control group were investigated. The study performed on women who realized their spouse infidelity and referred to Azad University Counseling Center in Mashhad in 2018. The sample consisted of 30 women who were selected by purposive sampling and were randomly assigned to two intervention groups and a control group (n=10 per group). The intervention groups were put under ACT training (twelve 90-minute sessions) and GCT training (twelve 90-minute sessions), but the control group did not receive any intervention. Data was obtained by the Toronto Alexithymia Scale-20 and Pines Marital Boredom Scale and was analyzed by multivariate analysis of covariance with SPSS (version 22) software.

Results: The results showed a significant reduction in the mean score of MB in the ACT group, also there was a significant reduction in the mean score of Alexithymia in the GCT group ($P < 0.05$). So comparing both therapies, ACT was more influential on reducing marital boredom whereas GCT was more effective on reducing alexithymia.

Conclusion: Although both intervention methods were effective on Alexithymia and Marital Boredom in women affected by marital infidelity, it was demonstrated that ACT and GCT have more effect on Marital Boredom and Alexithymia, respectively.

Keywords: Marital Infidelity, Marital Boredom, Alexithymia, Group Cognitive Therapy, Acceptance and Commitment Therapy

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Introduction

As individuals enter the third decade of life, they are faced with new and unique challenges. Marriage has been universally found to meet emotional, economic, sexual, social, reproductive needs (1, 2). One of the most crucial factors in marriage is the belief that one's spouse is committed and desires a lasting relationship. Commitment is found to have a strong impact on the sustainability of a relationship. When someone perceives that his or her spouse's commitment has been questioned, it can be considered as a powerful predictor of the termination of a relationship (2, 3). Among all those factors that threat family and marriage structure, infidelity or betraying spouse seems to be the main reason of disagreements, mental harms and finally divorce (4). Marital infidelity is a common phenomenon in western and eastern countries which is defined as passing the limits of marital relationship by having physical or emotional affairs with others (5).

The issue of marital infidelity is also a concern in Iran and is associated with instability of relationships and a high rate of divorce (6). In Iran, there are no specific statistics in this regard, and the percentage of married people who break the covenant varies in different studies. However, in one study in Iran the rate of infidelity among men was reported 42% which was mostly between the age of 26-35 (7). In another study, this rate for women was considered to be 13-15% (8). In recent studies the possibility of its occurrence has raised to 60% (4).These figures are limited and cannot be generalized to all cities and cultures in Iran. the backgrounds related to infidelity indicate a decrease in psychological health (7). It has also been identified as an influential factor in the field of sexually transmitted diseases. Also, awareness of the spouse's infidelity may lead to negative reactions, including physical assault, suicide, or even murder (4).

Marital infidelity is a shocking issue for couples and families and a common phenomenon for counselors and therapists. Infidelity or extramarital affairs may cause a great amount of anxiety for couples. Marital infidelity is a phenomenon with the most severe emotional consequences for couples. The majority of people affected by infidelity may experience anger, low self-esteem, depression, and helplessness (9). Marital infidelity plays a significant role in an emotional breakdown between couples and may cause marital boredom (10). Marital Boredom includes a set of symptoms such as emotional, physical, and mental exhaustion that causes significant consequences in a couple's life. This phenomenon occurs when the couple realizes that their relationship is unable to meet some basic needs, so the parties suffer from painful states of fatigue, monotony, depression, and feeling of failure in their marital life (11). Alexithymia is one of the traits that received less attention in the field of mood problems of women affected by infidelity and is closely associated with depression and anxiety (12). Alexithymia is a concept which stemmed from the field of psychosomatics and can broadly be defined as the inability to understand and describe one's feelings (13, 14). It is difficult to estimate the prevalence of alexithymia due to the fact that there are no clear diagnostic criteria, however various studies have estimated the prevalence between 10 and 19% (13, 15). Emotional disabilities and skills are considered important and impressive in adjusting with the environment and others, including the ability to recognize and express emotions appropriately, making a sense of security, improving a cordial relationship, and improving the ability to cope with negative experiences (16). So, there is an inverse relationship between Alexithymia and marital satisfaction (17, 18).

Since marital satisfaction is greatly reduced due to the experience of infidelity among affected women, the psychological well-being of individuals is significantly affected by intimate interpersonal relationships, and the ability to create and maintain a romantic and satisfying relationship requires the ability to recognize emotions and expressing them (19). The increasing number of infidelity and marital conflicts in the contemporary world and the risk of separation and its negative impact on the mental health of couples and

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children, has led therapists to offer theories and plans to help couples with conflicts and those on the verge of divorce. Cognitive therapy is one of the popular theories in this field. From a cognitive perspective, the causes of most behavioral problems and interpersonal conflicts, including marital conflicts, should be sought in cognitive errors and irrational beliefs of individuals (20). The purpose of identifying and challenging negative thoughts in the cognitive therapy approach is to seek help for finding alternative ways of thinking (21). The group cognitive therapy program aims to use all aspects of the Beck treatment method (1979) without its behavioral components, which is used not only for mood disorders but also for anxiety and anger disorders (22). The results of the present research confirm the effectiveness of group cognitive therapy based on the model of Michael Free (1999) in reducing marital conflicts (23). In other words, studies indicate that group cognitive therapy can reduce depression, cognitive distortion, anger and hopelessness (24) and also may act as an effective treatment in reducing Alexithymia (25). This treatment may trigger a type of cognitive review that leads to reducing marital conflicts among couples by challenging their negative thoughts and cognitions (26).

In addition to group cognitive therapy to solve the problems of people affected by infidelity, the use of Third Wave cognitive-behavioral therapies that target the process of thoughts (rather than their content, as in GCT), may also be effective. One of these treatments is acceptance and commitment therapy. The main goal of the treatment is creating mental flexibility; That is, the ability to make a practical choice between different options that is more appropriate, not just a practical one to avoid disturbing thoughts, feelings, memories or desires (27). It is assumed that in ACT, human beings find many of their inner feelings, emotions, or thoughts annoying and constantly try to change or get rid of these inner experiences (28). These attempts are ineffective in controlling inner experiences and they exacerbate the feelings, emotions, and thoughts that one initially has tried to avoid in a paradoxical way (29). This treatment has six central nuclei, which includes fault, acceptance, momentary contact, self-observation, committed action, and values (30). In other words, the main reason for choosing this treatment in comparison with other treatments is that the client is trained to accept her emotions for the first step and to have more flexibility here and now (31). So, this treatment combined the traditional cognitive therapy techniques with mindfulness which focuses on here and now rather than past or even future (32).

Research has shown that acceptance and commitment therapy can increase marital satisfaction, improve marital turmoil and communication variables between couples, marital adjustment, and reduce psychological and interpersonal distress between incompatible and troubled couples (33). It is similarly effective in reducing the anxiety of anxious couples (34), women with post-traumatic stress disorder (35), and depression among housewives with HIV (36).

Therefore, considering the prevalence and importance of marital infidelity and preventing the progression of divorce seems that one of the main problems of these individuals is Alexithymia or Marital Boredom, which has been less studied. Therefore, due to the progress of third-wave cognitive-behavioral therapy, there was no study to compare these therapies. Therefore, the researchers decided to conduct a study comparing GCT and ACT on Alexithymia and MB of women affected by marital infidelity.

Method

The research method was experimental with a pretest-posttest design and control group. The statistical population of this study included women who were affected by marital infidelity and had referred to Counselling Center of Educational Sciences Faculty in Mashhad Azad University in 2018 and were selected by purposive sampling based on the inclusion and exclusion criteria. However, only 30 of them agreed to participate in the study, eventually. Inclusion criteria were willingness to participate, At least two years of living together, age range of 25-45 years,

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minimum diploma education and exclusion criteria were suffering from a physical illness or other psychiatric disorders simultaneously, unwillingness to continue the study, absence for more than two sessions in the intervention groups. Randomization for selecting the members of each group was performed through rolling a dice which is a suitable way of assignment for interventions including three groups. Numbers 1 & 2 of a dice were dedicated to the first intervention group, numbers 3&4 were given to the second intervention group and finally those with numbers 5 & 6 were assigned in the control group. Each group was consisted of 10 members. Afterwards, Toronto Alexithymia Scale-20 and Marital Boredom Scale were provided to them. Finally two groups of ACT & GCT were present in addition to a control group.

Instruments

Toronto Alexithymia Scale-20

The Toronto Alexithymia Scale, a 20-item test, was used to measure mood distress. It was initially developed by Taylor in 1986 and then revised by Parker, Taylor and Bagby in 1994 (37). It has three components: Difficulty Identifying emotions, Difficulty describing emotions, and externally oriented thinking. The questions are on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). A total score is also calculated from total scores of the three subscales for emotional malaise .Psychometric properties of The Toronto Alexithymia Scale have been reviewed and validated in numerous studies such as assessing TAS-20 psychometric properties and factorial invariance in nonclinical and psychiatric samples (37). Furthermore, in Persian version of Besharat and Ganji study which was about the relationship between marital satisfaction and Alexithymia, Cronbach's alpha coefficients were reported 0.85 for Alexithymia, 0.82 for difficulty Identifying emotions, 0.75 for difficulty describing emotions, and 0.72 for externally oriented thinking. Also, they obtained the validity of the whole scale of the Iranian sample by using test-re test method (after one month) 0.74 and 0.72 (38).

Marital Boredom Scale

The purpose of the Marital Boredom Scale is to measure the degree of marital boredom among couples, which was developed by Pines in 1994 (39).The questionnaire includes 21 questions which incorporates the three main components of physical fatigue, lethargy and sleep disorders. Evaluating the validity coefficient of the marital boredom scale showed that there is an internal consistency between variables in the range of 0.84 to 0.90 (39). In Iran, Marital Boredom Scale was localized by Navidi (40). He estimated the reliability coefficient of this questionnaire by using 0.86 Cronbach's alpha.

Intervention

This study was a double- blind experimental one in which both participants and trainer had no idea about the group each person was going to be placed in because in double- blind clinical trials, the result assessor was not included in the intervention team. The study followed the ethical standards provided by the Helsinki Declaration. The participants were reassured about their identity, and that other personal information would remain confidential, then the informed consent form was signed by them voluntarily. In the present study, the ACT program was designed based on the model of Peterson and colleagues in 2009 for distressed couples, which was held in 12 sessions (34) and GCT treatment program was based on Michal Free cognitive protocol which has been published in a form of a book and included 12 group sessions of 90 minutes per week (41).The qualified trainer performed both treatments in the counseling center of the Islamic Azad University of Mashhad in 2018. The control group was placed in the waiting list until the end of data collection. After gathering the demographic information of the participants, for descriptive statistics the mean and standard deviation of research variables in two intervention groups and one control group were shown. At the next level, The normality of the data distribution was checked by Kolmogorov-Smirnov, homogeneity variances was approved by Levine’s test. Analysis of variance and covariance

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and finally Bonferroni's post hoc test were also used. Data collection was carried out in four stages of pre-test, post-test. Data analysis was carried out by using SPSS-22 and MANCOVA test was performed with a confidence interval of 95% and α = 0.05. The assumptions of the analysis of covariance model were all examined according to the Tutorial article (42).

ACT and GCT sessions are described in Tables 1 and 2, respectively

Table 1. The structure of treatment sessions based on acceptance and commitment

Session 1	More familiarizing clients with acceptance and commitment-based therapy, identifying the treatment goals and linking them to the values of client
Session 2	Increasing clients' awareness about the comprehensive control of personal emotions
Session 3	Relating the specific situations to the goal of failure and activity, accepting the focus of client on the process of verbalization than content creation
Session 4	Distinction of self-assessment and self-description, mindfulness practices, assessing the distinction between self-assessment and self-description
Session 5	Addressing faults (separating from mental experiences), practicing mindfulness, presenting the task of developing mindfulness practices for applying in daily life
Session 6	Completing the fault from the story of life, developing mindfulness. determining tasks related to mindfulness
Session 7	Completing the process of mindfulness practices by its generalization to thoughts and feelings. Assessing the values of group members
Session 8	Determining for more mindfulness practices and clarifying the nature of committed action (commitment). Demonstrating further methods for controlling barriers of further promotion in committed action through assignments
Session 9	Continuing value-related activities and increasing the desire to experience the unwanted emotions that surrounded the committed action
Session 10	Manifesting the distinction between the process and the result of action
Session 11	Further promotion of mindfulness and reaction of the therapist and members to the end of treatment
Session 12	Reviewing and reminding the strategies and techniques on which promotes the maintenance of ACT treatment benefits.

Table 2. The structure of group cognitive therapy sessions

Session 1	Explain the group provisions, introducing participants to each other, training cognitive therapy (situation, thought, and emotional and behavioral reactions)
Session 2	Training automatic thoughts, assumptions and core beliefs
Session 3	Being familiar with schemas and behavioral consequences
Session 4	Working on the vertical arrow, enabling participants to identify their schemas
Session 5	The relationship between schemas, beliefs and automatic thoughts, and the way they communicate with each other
Session 6	Accepting the fact that beliefs do change
Session 7	Understanding the fact that beliefs are different in terms of usefulness and may be evaluated based on some criteria
Session 8	Learning to apply logical analysis on your beliefs
Session 9	Providing hierarchy of situations related to core beliefs
Session 10	Considering two content areas of perceptual change, and voluntary cortical inhibition
Session 11	Learning self-punishment and self-reward
Session 12	Preventing the recurrence

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Statistical analyses

Data was analyzed by descriptive and inferential statistics such as mean and standard deviation scores. Data normality was examined by Kolmogorov- Smirnov test. Levene's test was also utilized to examine the equality of variances. The analysis of variance was utilized to test the assumption of homogeneity of line slope. Bonferroni's post hoc test was used to determine the mean difference between different training sessions. Data analysis was conducted by using the analysis of covariance. SPSS version 22 was further used for analyzing the data. The significance level of research was considered to be α=0.05.

Results

The present study was performed on 30 individuals with affected by marital infidelity in three groups of ACT (n = 10), GCT (n = 10), and Control (n = 10). The mean ± SD age of participants of ACT group was 26.8 ± 4.9, the mean ± SD age of GCT was 27.35 ± 6.0 and finally it was 28.2 ± 5.6 for the control group. There was no significant difference between three groups in terms of demographic information of the participants (P>0.05) (table3).

In Table 4 the mean and standard deviation of the variables in each group were showed.

Table 3. Demographic Characteristics of the Participants

Groups	Age Mean ± sd n=10 N (%)	Education Diploma n=10 N(%)	 Bachelor n=10 N (%)
ACT Intervention	26.8 ± 4.9	7(70)	3(30)
GCT Intervention	27.35 ± 6.0	6(60)	4(40)
Control	28.3 ± 5.6	6(60)	4(40)
p-value	0.71	0.50	0.50

Table 4. Mean and standard deviation of Alexithymia and Marital Boredom variable in groups

Variables	Test	ACT mean ± SD	GCT mean ± SD	Control mean ± SD
Alexithymia (Total scale)	Pre-test	67 ± 4.37	67.7 ± 9.1	68.9 ± 7.7
	Post-test	58.6 ± 7.13	55 ± 8.3	67.31 ± 5.6
Difficulty Identifying emotions	Pre-test	27.5 ± 2.01	25.6 ± 3.92	26 ± 3.05
	Post-test	19.8 ± 3.01	18.9 ± 3.03	25.5 ± 2.63
Difficulty describing emotions	Pre-test	19.3 ± 0.67	18.1 ± 2.51	19.4 ± 1.77
	Post-test	13.8 ± 1.93	14.6 ± 2.71	18.5 ± 2.36
Externally oriented thinking	Pre-test	30.2 ± 3.15	25 ± 3.8	21.5 ± 3.74
	Post-test	21 ± 2.98	25.5 ± 3.37	23.3 ± 3.35
Marital Boredom	Pre-test	97.5 ± 10.94	100.7 ± 8.05	104.5 ± 9.7
	Post-test	86 ± 10.11	94.5 ± 9.25	104.8 ± 11.10

Before using covariance analysis, its pre assumptions were estimated. For checking the homogeneity of variances Levene test was utilized. The results indicated that the assumption of the equality of variances was true and the use of analysis of covariance was permitted. Furthermore, the analysis of variance was utilized to test the assumption of homogeneity of line slope. This interaction was not significant, so covariate was considered as the secondary dependent variable and as a result analysis of covariance (ANCOVA) was applied (42). Before testing the assumptions, normality of error distribution should be checked by Kolmogorov- Smirnov test.

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Table 5. The results of examining the Normality of error distribution in quantitative variables of the study

Variable	Stage	K-S	P	Stage	K-S	P
Marital Boredom	Pre-test	1.06	0.21	Post-test	0.89	0.39
Alexithymia		0.58	0.88		0.62	0.83

The results of table 5 showed that the scores of Kolmogorov- Smirnov test for both variables at pre-test & post-test are above critical point of 0.05. Therefore, the normality of error distribution was proved and parametric tests like ANCOVA could be used.

Table 6. Results of MANCOVA test analysis between three groups

Dependent Variable	Post-test			
	f	df	p	Parital eta
Difficulty Identifying emotions	11.22	2	0.001	0.48
Difficulty describing emotions	12.14	2	0.001	0.50
Externally oriented thinking	2.44	2	0.001	0.16
Total scale OF Alexithymia	10.19	2	0.001	0.45
Marital Boredom	13.5	2	0.001	0.50

The results of Multivariate Analysis of Covariance (MANCOVA) according to table 6 showed that there was a significant difference between the intervention groups and control group in terms of Alexithymia mean score and its subscales in stage of post-test (P=0.001). Also, there was a significant difference between two intervention groups and a control group in the mean score of total Marital Boredom in stage of post-test (table 6). The results of Bonferroni follow-up test comparing two groups of intervention and control are presented in table 7.

And finally in table 8, the modified means were summerized.

Table7. The results of post-hoc test for paired comparison with Bonferroni correction for Alexithymia and Marital Boredom total scale mean and their subscales in three groups of intervention and control

Dependent Variable	ACT & GCT group Post-test P Value	ACT & Control group Post-test P Value	GCT &Control group Post-test P Value
Difficulty Identifying emotions	0.60	0.001	0.001
Difficulty describing emotions	0.02	0.001	0.01
Externally oriented thinking	0.01	0.001	0.01
Total scale OF Alexithymia	0.02	0.001	0.01
Marital Boredom	0.02	0.001	0.007

Table 8. The adjusted meanof variables after ANCOVA

Dependent Variable	Group	mean	Std.Error	95% confidence Interval	
				Upper Bound	Upper Bound
Difficulty Identify emotions	ACT	19.999	0.884	18.171	21.827
	GCT	20.146	0.778	18.536	21.756
	Control	24.055	0.799	22.402	25.707
Difficulty Describing emotions	ACT	13.382	0.717	11.898	14.865
	GCT	15.785	0.631	14.479	17.091
	Control	17.733	0.648	16.392	19.074
externally oriented Thinking	ACT	20.484	1.113	18.180	22.787
	GCT	22.656	0.981	20.627	24.684
	Control	22.660	1.006	20.579	24.742

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Dependent Variable	Group	mean	Std.Error	95% confidence Interval	
				Upper Bound	Upper Bound
Total scale of Alexi thymia	ACT	53.865	2.046	49.632	58.097
	GCT	58.587	1.802	54.860	62.315
	Control	64.448	1.849	60.623	68.273
Marital Boredom	ACT	90.181	2.203	85.624	94.739
	GCT	94.006	1.940	89.993	98.020
	Control	1.011E2	1.991	96.993	105.231

Discussion

According to the increasing rate of marital infidelity and women who are suffering from being betrayed, in this study two different interventions were examined and compared in order to focus on Alexithymia and marital boredom of these women . Therefore, The main purpose of the present study was to compare the effectiveness of ACT and GCT on Alexithymia and Marital Boredom of women affected by marital infidelity in Mashhad. The results showed that both GCT and ACT methods are effective in improving Alexithymia and MB in the participants of the present study. On the other hand, the results of the comparison between two therapeutic methods showed that GCT was more effective than ACT during the post-intervention phase in reducing the mean total score of Alexithymia, subscale of Difficulty describing emotions, and externally oriented thinking. But both intervention groups showed no significant difference between the sub-components of Difficulty Identifying emotions. On the other hand, the results showed that ACT had a greater effect on reducing the mean score of MB than GCT. In support of this hypothesis, it has to be mentioned that the results of the present study similar to the results of previous studies confirm the therapeutic effects of ACT on forgiveness and marital adjustment of women exposed to infidelity (35), reducing the signs of stress, depression and anxiety among women who were suffering from extra marital affairs of spouses (35), improvement of alexithymia among women on the verge of divorce and finally having positive effects on emotion regulation and meaning of life for these women (36).

According to the results and experimental evidence, it can be stated that the main goal of treatment is based on acceptance and commitment to create mental flexibility; that is, the ability of practical choice between different options that are more appropriate. In other words, it tries to accept the annoying feelings, thoughts and emotions (which are common in people with marital boredom) (31). Thus acceptance provides a hypothesis for immediate exposure to emotions that, while annoying, are real. This acceptance leads to an increase in responsibility (43). This treatment helps people to build their lives full of acceptance and bold action (31). Research has shown that acceptance and commitment therapy increases marital satisfaction, improves marital turmoil and communication variables between couples, marital adjustment, and reduces psychological and interpersonal distress between incompatible and troubled couples (33). Acceptance and commitment therapy guides couples to correct their behavior through increasing the security and support and availability, responding to their spouse's needs, developing safe behaviors, training proper communication skills and ways of increasing intimacy, and creating a desirable sexual relationship (44). Overall, it seems that acceptance and commitment therapy can be closer to the patterns of MB compared to better cognitive therapy. This treatment can encourage the person to engage in effective behavior in order to reduce MB through acceptance of adversity and conciliatory action.

Based on the results of the present study, it seems that GCT can be effective in reducing Alexithymia. The results of the present study was consistent with the results of previous studies on the effect of GCT on Alexithymia (24), on depression and negative thinking (45),self-talk and

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marital conflict reduction (23), and it was also consistent with reducing marital conflicts between couples (46). The purpose of the cognitive therapy approach is to identify and correct the maladaptive and inefficient thinking that causes dysfunction (45). Therefore, the central point and main focus of cognitive therapy is on mood disorders. Its purpose is to change fundamental beliefs and negative spontaneous thoughts and negative emotions caused by them. Cognitive therapy can be a tool for diagnosing and describing emotion. That is, if understanding beliefs, thoughts, and emotions are areas of cognitive therapy. The problem of individuals with emotional dyslexia is the weak emotional awareness that manifests itself in the inability of recognizing and verbally describing personal emotions, and also the extreme poverty in symbolic thinking (12). The purpose of cognitive group therapy was identifying, challenging, and changing the negative thoughts and cognitions of people with conflicting relationships. It led to identifying these distortions and intellectual biases and ultimately changing them by alleviating existing symptoms, replacing positive emotions, behavior, thinking, and eventually returning communication to a better and healthier level. Therefore, group cognitive therapy can be used to reduce emotional problems such as Alexithymia.

One of the limitations of the present study was the small sample size, which could not be increased due to group meetings and time constraints. Therefore, it is suggested to repeat this study with larger sample size and individually in prospective studies. ACT and GCT techniques can be used along with other psychological therapies to reduce mood distress and marital boredom in women affected by marital infidelity.

Conclusion

Due to the increasing number of marital infidelity and emotional and real divorce, it is necessary to carry out some measures in this regard, so according to the research findings, it seems that both Group Cognitive Therapy and Acceptance and Commitment Therapy methods were effective alternatives in improving Alexithymia and Marital Boredom in betrayed women. However, Acceptance and Commitment Therapy was more effective on Marital Boredom and Group Cognitive Therapy was more effective on improving Alexithymia of these individuals.

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Conflict of interests

The authors declare no conflict of interests for this study.

Author contribution

M.S was responsible for the idea, performing the analysis and drafting the manuscript. And N.M & M.A.V were involved in planning and supervising the work. All authors aided in interpreting the results, working on the manuscript, discussion and final comments.

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