



Effectiveness of systemic-constructivist couple therapy on emotional expression and marital intimacy of spouses of veterans suffering from post-traumatic stress

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Abstract

Introduction: Veterans are involved with many physical and mental problems that affect their married life. This study aimed to investigate the effectiveness of Systemic-Constructivist Couple Therapy (SCCT) on the emotional expression and marital intimacy of spouses of veterans who have Post-Traumatic Stress Disorder (PTSD).

Materials and Methods: The population of the present study was all veterans with PTSD who were referred to the Shahid Foundation of Mashhad City, Iran, in the third quarter of 2023. Thirty veterans with PTSD diagnosis were selected, and these veterans and their spouses were randomly replaced in two intervention and control groups. The participants were evaluated before and after the intervention with a marital intimacy scale and emotional expression questionnaire. The intervention consisted of eight sessions of systemic-constructivist couple therapy. The covariance statistical method was used to analyze the data.

Results: The results showed that the level of marital intimacy, intimate expression, and positive expression increased in the intervention group compared to the control group. Negative expressiveness in the intervention group showed a significant decrease compared to the control group ($P < 0.01$).

Conclusion: Therefore, systemic-constructivist couple therapy is effective in the emotional expression and marital intimacy of spouses of veterans who have post-traumatic stress disorder.

Keywords: Emotional expression, Marital intimacy, Post-traumatic stress disorder, Systemic-constructivist couple therapy

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Introduction

War veterans experience various psychological problems such as depression, anxiety, Post-Traumatic Stress Disorder (PTSD), cognitive problems, sexual dysfunction,

emotional dysregulation, suppressed emotions, and marital conflicts (1-3). The high prevalence of veterans have PTSD in a mild to severe range of symptoms, which interfere with their relationships, especially in close relationships

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with their partners and family members (4-6). Despite the personal effects of PTSD on an affected person, their relatives, especially couples, also experience high levels of stress and negative emotions such as depression, psychological fatigue, constant tension, being ignored, isolation, suppression of emotions, limited social relationships, grief feeling, marital dissatisfaction, and lack of feeling of support (7-10). Despite personal treatments for PTSD (11), the involvement of family members, especially their partners, in the treatment process can decrease psychological problems and marital conflicts in veterans and couples (12-16). So, couple therapies focused on interpersonal relationships and the family environment improve couples' mental health and marital satisfaction (17).

Among couple therapy methods, Systemic-Constructivist Couple Therapy (SCCT) is a clinical intervention that involves interpersonal and intrapersonal aspects of marriage and the socio-environmental context of the couples (18). This approach examines the dynamic and physiological factors in marriage. Systemic-constructive therapy helps couples come closer by providing pragmatic solutions and reducing their problems. Studies have indicated that SCCT increases the sense of belonging, which leads to increased interpersonal processing and marital satisfaction (19).

Regarding the need for novel and effective couple therapy to enhance marital intimacy and decrease psychological symptoms of veterans' spouses, this study aimed to investigate the effectiveness of Systemic-Constructivist Couple Therapy (SCCT) on emotional expression and marital intimacy of spouses of veterans suffering from post-traumatic stress.

Materials and Methods

The population of this study included all veterans who were referred to the Shahid Foundation of Mashhad City, Iran, in the third quarter of 2023. Inclusion criteria included a score above the cut-off line in the post-traumatic stress questionnaire (26-43, moderate level), marriage for more than one year, and a minimum intermediate degree of education. Exclusion criteria included having a psychological illness other than PTSD, severe intellectual or functional disability, and absencing more than one educational session. Based on the studies and formulas conducted (20), we selected 15 experimental and control group couples.

Finally, nine couples remained in each group and were evaluated in the analysis.

Research instruments

A) Demographic checklist: It included questions about age, educational level, illness, medication use, marriage duration, and receiving psychological treatment.

B) The Impact of Event Scale (IES): This scale was designed by Horowitz (1979) and consists of 15 questions. The options for the questions are not at all, rarely, sometimes, often, in the order of 0-1-3-5. The range of scores is between 0-75. The severity of the impact of the trauma is assessed based on the scores obtained in the following order: no impact (0-8), probable impact 9-25, clear impact (26-43), and severe impact (44-75). Creamer et al. confirmed the validity and reliability of this tool in their study and obtained a Cronbach's alpha of 0.96 (21). Abdi reported a Cronbach's alpha reliability of 0.92 for the questionnaire, and its content validity has been confirmed by experts (22).

C) The Marital Intimacy Scale (MIS): This scale was developed by Walker and Thompson in 1983. This questionnaire is a 17-item instrument designed to measure affection and intimacy.

The subject's score in this questionnaire is obtained by summing the scores of the questions and dividing it by the number 17. The range of scores is between 1 and 7, with a higher score indicating greater intimacy. This scale is part of a larger instrument that includes several dimensions of intimacy, but its developers report it as an independent scale (23). This scale was translated by Sanaei in 2001. In the study by Sanaei, the Cronbach alpha was reported as 0.96 (24).

D) Emotional Expressiveness Questionnaire (EEQ): This questionnaire was developed by King and Emmons (1990) and has 16 items in three subscales: ambivalence in expressing positive emotions (7 items), expressing intimacy (5 items), and expressing negative emotions (4 items). In this questionnaire, a higher score indicates higher emotional expressiveness.

The questionnaire is scored on a 5-point Likert scale from "strongly agree" to "strongly disagree." Items 1-7 are related to the positive emotion expression subscale, 8-12 are related to the intimacy scale, and 13-16 are related to the negative emotion expression subscale (25). In an Iranian population, the Cronbach alpha of this questionnaire was reported as 0.66 (26).

Implementation

Intervention sessions were held for eight sessions, lasting 60-90 minutes, twice a week.

The content of the sessions is as follows (Table 1) (18):

Table 1. The summary content of systemic-constructivist couple therapy

Session	Content
1 st	Introduction and familiarization with concepts; familiarization with the rules of the sessions, creating a sense of participation, and familiarization with basic concepts. In the first session, the therapist will familiarize the participants with some of the empirical findings of structural systemic couple therapy and how to use these findings. The general rules of the group are also stated and couples are encouraged to participate in the group during the training sessions. Participants are asked to write down a list of conflicts related to marital problems.
2 nd	The noted marital conflicts are reviewed. Conflicts in different areas and the nature of the participants' problems are classified in this session. Then, prioritization is done. New strategies for dealing with unspoken problems are explored.
3 rd	Empathy and active listening; improving empathy and active listening skills. Teaching the technique of marital listening. In this session, participants will be taught to listen fully to the other person and understand what he or she is saying, and not to think about responding while listening. Participants are asked to practice the technique of listening until the next session.
4 th	Effective communication; learning about barriers to communication and focusing on effective communication techniques; discussing the disadvantages of avoiding the topic and implementing tools. In this session, participants were encouraged to focus on areas that they avoid talking about despite the conflict. Participants were encouraged to shift their focus from criticism and complaining to active participation and achieving an ideal relationship. Effective conversation practice and active participation
5 th	Wish list; changing conversation styles from criticism to active participation and improving conversation skills. In this session, participants were asked to individually create a list of characteristics they would like for their ideal relationship. The goal of this exercise is to shift participants' focus from complaining and criticizing to a more active mode of participation. Continuing to work on the wish list and expanding on it. Next, the role reversal technique was practiced. Role reversal: Helping couples understand each other better through the technique of thinking and speaking in the third person. Implementing the technique of thinking and speaking in the third person. In this session, the technique of thinking and speaking in the third person was used. In this technique, participants were taught to discuss problematic interactions with their spouses in relation to the therapist. Using the technique of thinking and speaking in the third person about issues in married life
6 th	Changing roles; helping couples to understand each other better through the technique of thinking and speaking in the third person. Continuing to implement the technique of thinking and speaking in the third person. In this session, the technique of thinking and speaking in the third person will again be used regarding existing problems. Using the technique of thinking and speaking in the third person about issues of severe marital tension. In this session, the woman speaks in the husband's position and the husband speaks in the wife's position
7 th	Mutual understanding; the couple puts themselves in the wife's position to better understand the other world. Implementation of the inner partner technique (taking a perspective for couples). In this session, the couple was spoken to as if they were in the wife's position. This process causes the party being interviewed to imagine themselves in another place. Implementation of the inner partner technique (taking a perspective for couples) on controversial issues
8 th	Review of materials and summary; summary of sessions and conclusions; review of previous sessions; final summary; re-administration of the appreciation and gratitude test to the subjects and termination of treatment

The collected data were analyzed after description (with mean, standard deviation, percentage, and frequency) using one-way covariance analysis in SPSS 22 statistical software.

Results

Among the participants, 18 couples were evaluated. The educational level of 10 participants (27.8%) had bachelor's or associate's degrees, 22 (61.1%) had diplomas or

intermediate degrees, and 4 (11.1%) had master's or doctoral degrees. 2 couples had one child (10.2%), nine couples (50%) had two children, six couples (37.4%) had three children, and one couple had four children. The participants had been married for 17-41 years. The age range of the participants was 33-61 years, with a mean age of 49.75 years. The mean scores of the variables by group for the two pre-test and post-test stages are presented in Table 2.

Table 2. The mean scores of emotional expression and marital intimacy in two groups in the pre-test and post-test stages

Variable	Stage	SCCT group (Mean \pm SD)	Control group (Mean \pm SD)
Intimacy	Pre-test	34.77 \pm 4.26	33.94 \pm 4.33
	Post-test	43.38 \pm 4.56	34.11 \pm 4.12
Expressing intimacy	Pre-test	11.55 \pm 1.82	12.22 \pm 2.48
	Post-test	16.11 \pm 2.56	12.11 \pm 2.44
Expressing negative emotions	Pre-test	10.94 \pm 2.23	11.61 \pm 1.78
	Post-test	14.16 \pm 2.20	11.66 \pm 1.78
Expressing positive emotions	Pre-test	16.50 \pm 2.87	16.72 \pm 2.13
	Post-test	21.33 \pm 3.39	17.16 \pm 2.25

As shown in Table 2, the mean scores in the experimental and control groups are similar in the pre-test, but changes were seen in the post-test. The normality of the distribution of variables in the two groups was tested with the Kolmogorov-Smirnov test. The results showed the assumption of the normality in the experimental and control groups ($P > 0.05$). The results of the Levene's test for homogeneity of variance were also confirmed ($P = 0.463$). The results of the assumption of homogeneity of the

slope of the regression line showed that the significance level of the interaction effect was insignificant in all dependent variables, and the assumption of homogeneity of the slope of the regression line was met. Also, the results of the M-Box test (90.92) showed that the assumption of homogeneity of the covariance matrix was met. Considering the compliance with the assumptions of the analysis of covariance, the results of the multivariate analysis of covariance are presented in Table 3.

Table 3. The results of covariance analysis

Source	Sum of squares	Degree of freedom	Mean of squares	F	P	Eta
Intimacy	493.39	1	493.39	108.06	0.001	0.76
Group	649.79	1	649.79	142.32	0.001	0.81
Error	150.66	33	4.56			
Expressing positive emotions	235.90	1	235.90	167.07	0.001	0.76
Group	173.71	1	173.71	123.02	0.001	0.81
Error	46.59	33	1.41			
Expressing negative emotions	115.88	1	115.88	185.45	0.001	0.84
Group	82.67	1	82.67	132.31	0.001	0.80
Error	20.62	33	0.62			
Expressing intimacy	175.62	1	175.62	152.80	0.001	0.82
Group	193.60	1	193.60	168.44	0.001	0.83
Error	37.92	33	1.14			

The covariance test showed that by eliminating the pre-test effect, the level of intimacy in the experimental group compared to the control group in the post-test stage had a significant change ($P < 0.05$).

The eta coefficient was 0.81, which shows that the level of change in the experimental group compared to the control group increased 81%. Also, the emotional expression scores in the three dimensions of negative, positive, and intimate expression changed significantly in the post-test stage in the experimental group ($P < 0.05$). The beta coefficient for positive expression was 0.81, negative expression was 0.80, and intimacy expression was 0.83.

Discussion

The results showed that the level of intimacy and expression of emotion in the experimental

group had a significant change in the post-test stage compared to the control group. It means that systemic-constructivist couple therapy was effective in the marital intimacy and expression of emotion in spouses of veterans with post-traumatic stress disorder.

In this line, Ahmad and Reid suggested that systemic-constructivist couple therapy is an effective therapy to improve relationship adjustment significantly in couples with South Asian culture in the treatment process (27). Also, Reid et al. concluded that SCCT increased couples' identity and marital satisfaction in two studies and a follow-up study. Thirteen couples participated in each study. The 2-year follow-up study showed persistent increased couples identity and marital satisfaction in studied couples (28). In Iranian populations, Noorani, Jazayeri, and Fatehizadeh investigated the

effectiveness of SCCT through the Enrich Marital Satisfaction Questionnaire and the couple intimacy scale on 30 older women-younger men couples in Isfahan City, who were divided into an experimental group and a control group. They concluded that SCCT was effective in positively affecting marital satisfaction and intimacy of couples (20). These findings are consistent with our findings. In addition, Pourhosseinali and Amirfakhraei studied the effectiveness of SCCT on alexithymia and self-differentiation of 30 wives who experienced marital betrayal in Sirjan City, Iran. The results indicated an increased level of self-differentiation and reduced alexithymia in wives who had undergone nine two-hour sessions of SCCT compared to the control group (29). These results support our findings about the effectiveness of SCCT on the expression of emotions in spouses of veterans with PTSD. Because these women almost suffer from suppressed and non-expressed emotions due to special conditions. In another study by Aqamirmohamdali, Kaboli, and Kalani Sarokolaei on 30 women seeking a divorce in Tehran, Iran, the results indicated that SCCT significantly corrected their irrational beliefs and decreased alexithymia in these women (30). These findings are in line with our results about the effectiveness of SCCT on the expression of emotions and marital intimacy in veterans' spouses who experience marital conflict and difficulties in expressing their emotions.

Overall, the results indicated that family therapy, a system based on constructivism, is effective on the level of intimacy and emotional

expression styles of spouses of veterans with post-traumatic stress. This method can be an appropriate intervention to improve couples' relationships. This study was accompanied by limitations, including the impossibility of random sampling and the impossibility of selecting participants based on socioeconomic status and severity of PTSD. In future studies, it is suggested that this study be examined in other military and civilian groups. Psychological problems should be identified and classified, and interventions should be made based on them.

Conclusion

Therefore, systemic-constructivist couple therapy is effective in the emotional expression and marital intimacy of spouses of veterans who have post-traumatic stress disorder.

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Conflict of Interests

The authors declare no conflict of interest.

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Ethical Considerations

All veterans and their spouses participated voluntarily and signed the consent form. The present study was approved by Islamic Azad University, Neishabour Branch.

Authors' Contributions

The second author designed and supervised the research process, and approved the final draft of the manuscript. The first author conducted the research and wrote and revised the manuscript.

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