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The effect of self-study training on resilience and effective coping style of women involved in domestic violence

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Abstract:

BACKGROUND AND OBJECTIVE: Intimate partner violence (IPV) is a serious yet preventable public health issue. Resilience plays a significant role in helping women overcome the effects of IPV. The aim of this study was to investigate the effect of self-help training on the resilience of women exposed to IPV.

MATERIAL AND METHODS: In this clinical trial, 62 female survivors of violence who were attending comprehensive health service centers in 2022, randomly assigned to either an intervention or a control group. Data collection instruments included a demographic characteristics questionnaire, the Violence Against Women Scale, the Connor–Davidson Resilience Scale (CD-RISC), and the problem-focused coping subscale of the Ways of Coping Questionnaire (WOCQ) by Lazarus and Folkman. The training in this study was delivered in person using lectures, group discussions, and question-and-answer sessions. The total number of sessions was 14 sessions of 60 min each, for two groups of 16 participants. Data were analyzed using SPSS software (version 21), independent *t*-tests, and analysis of variance with repeated measures (ANOVA).

RESULTS: The results demonstrated a significant increase in resilience scores in the intervention group over time, (baseline 58.27 ± 19.83 , immediately 65.79 ± 17.77 , one month 66.68 ± 17.49 , and two months 66.44 ± 17.61 , post-intervention) (*P* value: 0.002). And in effective coping style scores (baseline 35.51 ± 11.64 , immediately 43.13 ± 12.47 , one month 43.37 ± 12.39 , and two months 43.86 ± 12.65 , post-intervention) (*P* value: 0.008).

CONCLUSION: Verbal self-instruction improves resilience scores and effective coping styles, but its impact is greater on resilience. This training method can be included in counseling and support programs to optimize healthcare services for women affected by domestic violence.

Keywords:

Coping style, domestic violence, education, health promotion, resilience

Introduction

Intimate partner violence is a serious and preventable public health issue that disrupts family functioning.^[1] The most common type of violence against women is perpetrated by an intimate partner and is often referred to as “domestic violence” or “intimate partner violence.”^[2] Domestic violence against women has taken into considerable due to its high prevalence

worldwide. Lifetime prevalence of physical or sexual violence by an intimate partner among women has been reported to range from 15% to 75%.^[3] One in every three women has experienced violence during her lifetime, according to the global statistics.^[2] In some other countries, 10% to 69% of women have reported experiencing at least one case of physical violence by their intimate partner.^[3] A study by Mansouri (2023) indicates that about 90% of women had experienced some kind of domestic violence. Women reported verbal (80%),

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emotional (73%), financial (48%), and physical (22%) among the most common forms of violence. The most common type of verbal violence was shouting (29%) and argument (21%). The most common forms of emotional violence include the intimate partner's interference in his wife's family relationships (18%), as well as expecting women to be obedient and dominance (17%). Some instances of the most common financial violence are unwillingness of giving money to women (12%) and making financial decisions without consulting with their life partner (10%). Pushing (11.5%), slapping (9%), and throwing objects (9%) were frequently reported as physical violence.^[4]

All of the mentioned violence types are a violation of women's rights, and as various studies confirmed, they leave a long-term negative impact on the victim, her family, and the society.^[5] The first step must be to identify the causes of domestic violence, so that it can be effectively addressed. Specifically, it is essential to figure out what factors increase women's risk of victimization and cause irreparable mental, physical, and family harm, and prevent them from escaping the cycle of violence.^[6] According to some studies, intimate partner violence perpetration and victimization are influenced by a combination of individual, relationship, community, and societal factors.^[7] Among these, psychological and moral factors are of particular importance, with cognitive-moral elements considered central to explaining violent behaviors.^[8] Two important individual factors that have been studied in several studies are resilience and coping styles. Adaptive behaviors when facing violence can increase or decrease both the incidence of violence and the stress associated with it^[9] and on the other hand influence mental health.^[10] Resilience, which is closely consistent with the coping style, refers to positive adaptation, and the ability to maintain psychological well-being despite experiencing adversity.^[11] A study conducted on Spanish women, has shown that women who experience greater emotional support and awareness tend to demonstrate greater resilience,^[12] while women exposed to domestic violence often show lower levels of resilience.^[13] After identifying the underlying factors that lead to domestic violence, it is essential to implement interventions with the aim of reducing or preventing its consequences. Several interventions, including problem-solving, anger management, self-awareness, communication, self-efficacy, and challenging dysfunctional beliefs, were observed.^[14,15] Other interventions regarding empowering women, self-worth enhancement, fostering independence, promoting social support, and sharing information in situations involving intimate partner violence, health planning, and local referral resources, demonstrated their usefulness.^[16,17] One of the interventions that has been shown in various studies to be effective on individual factors affecting violence,

including resilience, as well as on the development of violence against women, adjustment, and quality of life of couples and women who have experienced violence is cognitive-behavioral therapy (CBT).^[18,19] Cognitive-behavioral therapy aims to help individuals gain greater control over their lives by refining dysfunctional beliefs, irrational ideas, reducing cognitive distortions, enhancing coping skills, and fostering positive self-talk.^[20] One specific CBT approach is the self-study training, which involves self-control improvement through self-talk, motivation, and reinforcement.^[21] The mentioned approach involves three primary steps: identifying problem situations, developing effective self-talk, and behavioral rehearsal for employing these strategies in real-life situations.^[22] This approach aligns well with the post-intimate-partner-violence resilience model, which emphasizes personal capabilities and improves self-regulatory abilities, leading to greater resilience.^[23] Studies have shown that this method effectively improves students' self-efficacy, self-esteem, and self-confidence.^[24,25] In a study, findings indicated that IPV-based interventions should help women develop in order to grow and gain independency from their abusive partners by developing self-efficacy and self-esteem. Such interventions include fostering a positive self-image and constructive inner dialogue, thereby reinforcing their sense of self-worth.^[23] Given the clarification of the effect of using adaptive coping strategies and high resilience on women's mental health, these two can be considered important components for the mental health of women victims of domestic violence, and interventions on them may have a positive effect on the severity and complications of women's violence. Therefore, the present study was conducted with the aim of determining the effect of training on resilience and adaptive coping strategies of women involved in domestic violence.

Materials and Methods

Study design and setting

The randomized clinical study was conducted on 62 females experiencing intimate partner violence who had referred to comprehensive healthcare service centers in Isfahan.

Study participants and sampling

The participants were randomly selected and met the inclusion criteria of the present study. It is worth noting that the final sample size consisted of 29 participants in the intervention group and 29 in the control group after the attrition [Figure 1]. The researcher visited selected healthcare centers during one week, and randomly selected individuals through SIB system. Subsequently, the researcher contacted the selected participants through phone calls. During the phone call, the researcher

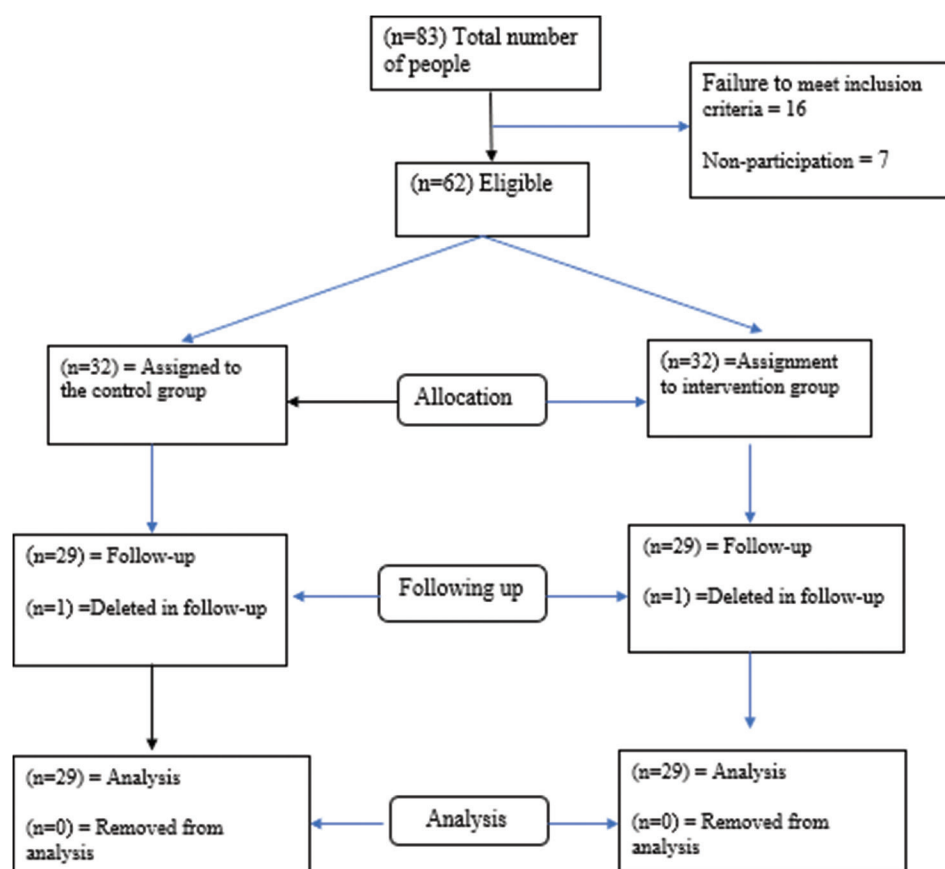


Figure 1: Consort diagram

introduced herself, explained the objectives of the study, and obtained their medical history to determine eligibility of the individuals. Those who met the initial inclusion criteria would complete a domestic violence questionnaire. Last but not least, the participation was determined by two factors: the participants perceiving the violence as positive, and their willingness to participate in the study. The inclusion criteria of the study are as follows: having experienced any type of violence, such as physical, emotional, or sexual; willingness to participate in the study; they must have cohabited for at least one year; the minimum literacy of reading and writing; not having severe mental illnesses registered in SIB system; not being pregnant; no substance abuse, not having debilitating physical illness. The exclusion criteria included withdrawal from the study, and missing two or more training sessions.

Data collection and technique

Four questionnaires were employed in the present study: the demographic questionnaire, the domestic violence questionnaire, the Connor–Davidson Resilience Scale (CD-RISC), and finally Lazarus and Folkman’s Ways of Coping Questionnaire (WOCQ). The demographic questionnaire consisted of demographic characteristics (age, occupation of both women and their spouses), as well as education level of both women and

their spouses, economic status, housing situation, and spouse substance abuse. The second part of the data collection tools was assigned to the domestic violence questionnaire, consisting of 32 items and four subscales of psychological, physical, sexual, and financial violence. The first subscale, which includes items 1 to 16, measures psychological violence, the second subscale, which includes items 17 to 27, measures physical violence, the third subscale with the items 28 to 30, measures sexual violence, and the fourth subscale with items 31 and 32, measures financial violence. Each item was scored from 0 to 3 (never, once, twice, and more than twice), with a total possible score ranging from 0 to 96. The more violence an individual has been subjected to, the higher the score obtained on that scale.^[26] The third part of the data collection tool included Connor and Davidson Resilience Scale (CD-RISC), consisting of 25 items, with the cutoff point of 50. The CD-RISC was developed by Connor and Davidson (2003)^[27] to measure the ability of individuals to cope with pressure and threat. This questionnaire includes five subscales of personal competence and trust in one’s instincts, tolerance of negative affect, positive acceptance of change, self-control, and spiritual influences. The scores are evaluated on a 5-point Likert scale ranging from 0 to 4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of

the time (4). The total resilience score of each individual, which is obtained from the sum of the five subscales, varies from zero to 125, and higher scores indicate higher resilience. As mentioned earlier the cutoff point of this questionnaire is 50; in other words, a score above 50 indicates resilience, and the higher the score, the higher the individual's resilience and vice versa.

Finally, the fourth part includes the Coping Styles Questionnaire (WOCQ), developed by Lazarus and Folkman in 1984, and consists of 66 items. The WOCQ is structured around eight subscales, including those focused on problem-focused coping and emotion-focused coping. All items of the WOCQ are scored on a scale of 0 to 3. The subscales of motion-focused coping style include direct coping, distraction, restraint, escape-avoidance, while problem-focused coping style includes seeking social support, taking responsibility, problem-solving, and positive reappraisal. The WOCQ is scored on a four-part Likert scale with the option "I have not used it at all" assigned a score of 0. The other options on the scale were assigned higher numerical values, corresponding to increasing levels of the measured construct: the option "I have used it sometimes" is assigned a score of 1, the option "I often use it" is assigned a score of 2, and the option "I use it a lot" is assigned a score of 3. Ultimately, the scores obtained from the questions of each item are added together which are as follows: the score obtained from the direct coping, self-control, social support, taking responsibility, escape-avoidance, problem-solving, positive reappraisal, distraction, and restraint. The highest score on a specific coping style subscale indicates that the individual tends to rely on that particular style more frequently. It should be noted that, considering the objectives of the research, the problem-oriented coping style subscales were used and the questionnaire score was adjusted based on the aforementioned items. Based on this method, the scores obtained from all the subscales are added, with the range of scores between 0 and 198, indicating the lowest score as 0, the average score being 110, and the highest score being 198. A. If the calculated score is between 0 and 66, it indicates a low level of coping style used by individuals. B. The calculated score between 66 and 110 indicates an average level of coping style used by individuals. C. If the calculated score shows a value of 110 or higher, a high level of coping style is employed by the individuals. The validity and reliability of the CD-RISC have been supported by the test creators and other researchers through various studies using factor analysis, convergent and divergent validity, and reliability analyses like test-retest and Cronbach's alpha. These studies have included both normal populations and groups considered at-risk.^[28] The Persian version of this scale was also prepared by Samani.^[29] The Cronbach's alpha coefficient of the scale was calculated as 0.87 and the test-retest reliability was 0.73.

Initially, the researcher attended the selected centers and randomly selected individuals through the SIB system based on the last even or odd number of their national ID. They were then contacted and the objectives of the research were fully explained to each individual by the researcher. After inviting them to attend the center and obtaining their informed consent, they were asked to complete the standard questionnaire for measuring violence against women. If the study results indicated that participants had experienced violence, they were included in the study. Then, the demographic characteristics questionnaire, the CD-RISC, and the general problem-oriented coping subscale of the Lazarus and Folkman Coping Styles Questionnaire (WOCQ) were provided to the women subjected to violence to determine their level of resilience and the type of effective coping style. Moreover, they were taught how to complete the questionnaire. Subsequently, the samples were divided into two experimental and control groups using random assignment (drawing lots). Afterward, they were invited to participate in the sessions and the process was explained to them. The intervention participants were divided into two small groups, since the presence of all the participants was not possible. The intervention group attended 14 training sessions—each lasting 60 min, twice a week-held in person through lectures, group discussions, and Q and A. The group was divided into two subgroups of 16 participants each. The first session was dedicated to introduction, providing the participants with the number of sessions, objectives, and duration of each session. In the subsequent sessions, the objectives of each session were also explained, and the content of the previous session was reviewed through Q and A. Then, the training contents were taught based on the implementation method that was planned for each session. A 10-minute break for refreshments and rest was scheduled for the participants half an hour after the session started. At the end of each session, participants were asked about the content presented and the impact of the training in previous sessions on their daily behaviors [Table 1].

Both intervention groups received two training sessions per week in the training hall of the selected centers. Then, the post-test questionnaires were completed by both the intervention and control groups immediately, one month, and two months after the training; the CD-RISC and the problem-oriented coping subscale of the World Coping Styles Questionnaire (WOCQ). This was conducted to evaluate the effectiveness of the training in enhancing resilience and promoting effective coping styles in women involved in intimate partner violence. The intervention and control groups received a PDF version of the training content at the end of the study. It is worth mentioning that the training content was updated and validated by experts.

Table 1: Content of training sessions

Session	Title	Content	Learning area
1	Introduction and statement of rules	- Establishing relationships, introducing and getting to know people, stating the goals of the sessions, introducing the advanced training program, and presenting the meeting schedule to the research participants. Reviewing the rules and everyone participating in the discussions.	Cognitive
	Domestic violence	- Domestic violence: definition of domestic violence, types of domestic violence, effects of violence on women, people exposed to domestic violence	Cognitive and emotional
	Resilience	- Resilience: defining resilience and providing examples in the field of resilience	Cognitive and emotional
	Coping styles	- Coping styles: defining coping styles, types of coping styles, providing examples in the field of types of coping styles, presenting the assignment, and evaluating the session	Cognitive and emotional
2	Relaxation	-Review of the previous session, assignment presentation and group discussion -Relaxation: providing explanations about relaxation, relaxation training, relaxation practice -Providing explanations about the Maikenbaum self-learning verbal therapy method, session evaluation	Cognitive and psychomotor
3	Cognitive restructuring	-Review of the previous session, relaxation exercise and group discussion -Cognitive restructuring: description of cognitive restructuring, most common irrational beliefs, characteristics of negative thoughts, necessary steps to deal with negative thoughts, types of cognitive errors, assignment presentation, and session evaluation	Cognitive, emotional, psychomotor
4	Guided self-talk	-Review of the previous session, assignment and group discussion -Self-talk: Definition of guided self-talk, providing necessary tips in the field of self-talk, teaching the stages of self-talk (1- Preparation for a difficult situation, 2- Tolerance of a difficult situation, 3- Praise following success in tolerance), and providing examples in the field of guided self-talk, presenting the assignment and evaluating the session	Cognitive, emotional, psychomotor
5	Verbal self-learning	-Review of the previous session, assignment presentation and group discussion -Definition of verbal self-study, teaching the stages of verbal self-study (1- stage of understanding and comprehension, 2- stage of skills acquisition and practice, the second stage itself includes: relaxation techniques, problem-solving skills, and guided self-talk, 3- application and follow-up of acquired skills), assignment presentation	Cognitive, emotional, psychomotor
6	Verbal self-learning	-Review of the previous session, presentation of assignments and group discussion, continuation of discussion on the use of verbal self-education before, during, and after violence	Cognitive, emotional, psychomotor
	Problem-solving skills	- Problem-solving skills training (1- Identifying and defining the problem, 2- Factors causing the problem, 3- Presenting possible solutions, 4- Evaluating possible solutions, 5- Implementing and evaluating -Presenting the assignment	Cognitive, emotional, psychomotor
7	Summarization, summary, and conclusion	-Review of the previous session, review of assignments and group discussion	Psychomotor

Ethical consideration

This study was approved by the Research Committee of Isfahan University of Medical Sciences (IR.TUMS.SPH.REC.1398.098). Participants signed the written consent form and completed questionnaires in health centers.

Statistical analysis

Data were analyzed using SPSS software (version 21). Descriptive statistics indicators including mean, standard deviation, frequency, and frequency percentage were used to describe the data, and inferential statistics were used to analyze the information as follows. The Kolmogorov-Smirnov test was used to examine the normality of the variables. The Chi-square test was used to examine the background variables of a qualitative ordinal type, namely, male and female education and

economic status, and the nominal qualitative variables, namely, male and female occupation, substance abuse, and residential status. And the independent *t*-test was used to examine the background variables of a quantitative type (age, fertility status, and violence score). Covariance analysis was used to compare the mean resilience score and effective coping style score between the two groups after the intervention.

Results

Overall, 62 women who experienced violence (32 in the experimental group) and (32 in the control group) were studied, and due to sample attrition, data from 58 were ultimately analyzed. Qualitative demographic characteristics between the control and test groups before

the intervention are shown in Table 2. The Chi-square test showed that there was no significant difference between the two groups. Independent *t*-test also showed that there was no statistically significant difference between the participants in the control and test groups before the intervention in terms of mean age, violence score, and fertility status score [Table 3].

The covariance analysis indicates that the mean score of resilience in the intervention group was significantly higher than the control group, immediately, one month, and two months after the intervention. The mean scores of the resilience in the intervention group were $P = 0.000$, $P = 0.006$, and $P = 0.007$, respectively. The repeated measures analysis of variance test shows a significant difference in the mean score of resilience in the intervention group before the intervention, immediately, one month, and two months after the intervention (P -time = 0.002); however, it was not significant in the control group (P -time = 0.197). The repeated measures ANOVA shows that there are statistically significant changes in the mean scores of the resilience across the four mentioned repeated measurements (P -intervention = 0.013). It also indicates that there is an interaction between time and intervention; put simply, the changes in resilience scores in the experimental group were not consistent across different time points; however, there was no significant difference observed in the control group (P -interaction = 0.017). *Post hoc* test with pairwise comparisons shows that in the experimental group, the mean resilience score before and immediately after the intervention, before and one month after the intervention, and also before and two months after the intervention differ significantly from each other ($P = 0.003$, $P = 0.002$, $P = 0.000$). That is, the mean score of resilience improved

with verbal self-study training, also known as verbal self-instruction training (VSIT). In other words, the mean score of resilience was higher immediately after the intervention; however, there was no significant decrease or increase during one month and two months after the intervention ($P = 0.199$, $P = 0.625$, $P = 0.491$, respectively). According to the covariance analysis, the mean score of effective coping style was significantly higher in the experimental group compared to the control group, immediately ($P = 0.005$), one month ($P = 0.014$), and two months after the intervention ($P = 0.008$) [Table 4].

The repeated measures ANOVA shows that there are statistically significant changes in the mean scores of the effective coping style across the four repeated measurements: before, immediately, one month, and two months after the intervention; meaning that the changes in these means were significant in the experimental group (P -time = 0.008) despite in the control group (P -time = 0.196). The repeated measures ANOVA shows that there are statistically significant changes in the mean scores of the effective coping style between the experimental and control groups across the four mentioned repeated measurements (P -intervention = 0.013). It also indicates that there is an interaction between time and intervention; that is, the changes in effective coping style scores in the experimental and control groups were not significant across different time points (P -interaction = 0.017). According to the *post hoc* test with pairwise comparisons, the mean scores of the effective coping style in the experimental group were significantly different before and immediately after the intervention, before and one month after the intervention, before and two months after the intervention ($P = 0.006$, $P = 0.012$, $P = 0.01$). Moreover, the mean score of the effective coping style did not have a statistically

Table 2: Comparison of the frequency distribution of qualitative demographic characteristics between the control and Intervention groups

Variables	Classes	Control <i>n</i> (%)	Intervention <i>n</i> (%)	Chi-square test		
				χ^2	<i>P</i>	df
Women's occupation	Housewife	28 (96.6)	25 (86.2)	1.970	0.160	1
	Employed	1 (3.4)	4 (13.8)			
Husband's occupation	Self-employed	26 (89.7)	22 (75.9)	1.933	1.164	1
	Employed	3 (10.3)	7 (24.1)			
Women's education	Below Diploma	16 (55.2)	14 (48.3)	0.276	0.599	1
	Diploma and above	13 (44.8)	15 (51.7)			
Husband's education	Below Diploma	19 (65.5)	16 (55.2)	0.628	0.421	1
	Diploma and above	10 (34.5)	13 (44.8)			
Income situation	Poor	5 (17.25)	4 (13.8)	0.137	0.934	2
	Medium	19 (65.5)	20 (68.95)			
	Good	5 (17.25)	5 (17.25)			
Residence status	rental	8 (27.59)	9 (31.5)	0.083	0.773	1
	Own	21 (72.41)	20 (68.95)			
Substance use	Yes	28 (96.6)	28 (96.6)	0.00	0.754	1
	No	1 (3.4)	1 (3.4)			

significant difference, immediately and one month after the intervention, immediately and two months after the intervention, one month after the intervention and two months after the intervention ($P = 0.095$, $P = 0.145$, $P = 0.617$). That is, the mean scores of the effective coping style showed no indication of any change—either increase or decrease—immediately, one month, and two months after the intervention [Table 5].

Discussion

The findings of the present study support the effectiveness of cognitive-behavioral therapy in improving resilience, which is consistent with other studies in Iran. Khatibi *et al.* (2023)^[30] also reported that the cognitive-behavioral therapy was effective on resilience and emotion regulation. Valizadeh *et al.*^[31] also reported that the cognitive-behavioral therapy, as well as acceptance and commitment therapy were effective on resilience and the quality of life among women subjected to domestic violence. In addition, the study conducted by Masnur *et al.*^[32] in Indonesia showed that the CBT group counselling with self-instruction technique can effectively improve students' self-efficacy. According to the study by Newman *et al.*^[33] in Buenos Aires, the effectiveness of stress management training on resilience

and the quality of life are consistent with the findings of the present study emphasizing the role of cognitive-behavioral therapy.

Considering the above findings, it can be stated that the cognitive-behavioral therapy could have a significant impact in helping women who have experienced violence become aware of their problems. Cognitive therapy focuses on helping individuals understand their thoughts, assumptions, and beliefs, while behavioral therapy emphasizes modifying behaviors and their relationship to problematic situations and reactions. The core principle of cognitive behavior change is that patients must become aware of their thoughts, feelings, and behavior, and how they affect others. That is, by changing thoughts and feelings, individuals can ultimately change their behaviors.

Eichenbaum's self-instructional training is one of the approaches in the cognitive-behavioral therapy that help individuals change their patterns of thinking and behavior. For instance, positive self-talk utilized through VSIT that lead to an increase in positive thought patterns and improve an individual's overall adjustment and normalization. Such thought-stopping technique can help interrupt negative thoughts, promoting a more positive mindset and self-control. Thus, individuals can redirect negative self-views, such as guilt, inadequacy, insecurity, indecision, or other negative feelings into more positive sense of self, eventually cultivating a feeling of self-worth.^[28] Previous studies support the fact that verbal self-instruction effectively enhanced individuals' self-efficacy, self-esteem, and self-confidence; on the other hand, one way of strengthening resilience involves cultivating protective factors such as self-confidence, self-esteem, self-worth, and self-efficacy.^[22] It seems

Table 3: Comparison of the frequency distribution of quantitative demographic characteristics between the control and Intervention groups

Variables	Control M (SD)	Intervention M (SD)	t-Test	
			t	P
Age	43.31 (9.86)	41.55 (9.21)	-0.702	0.486
Reproductive statues	2.42 (0.63)	2.52 (0.94)	1.30	0.199
Domestic violence score	35.86 (22.60)	33.75 (25.57)	-0.332	0.741

SD: Standard deviation

Table 4: Comparison of mean resilience scores in the experimental and control groups, before, immediately after, one month after, and two months after the intervention

Variables	Group	Intervention				P*		
		Before M (SD)	Immediately after M (SD)	One month after M (SD)	Two months after M (SD)	Time	Intervention	Interaction
Resilience	Intervention	58.27 (19.83)	65.79 (17.77)	66.68 (17.49)	66.44 (17.61)	0.002	0.013	0.017
	Control	51.65 (17.47)	51.65 (17.47)	53.51 (18.46)	53.51 (18.46)	0.197		
Statistic	Test	$t=-1.349$	$F=25.224$	$F=8.298$	$F=7.733$			
	P	0.183	0.000	0.006	0.007			

*Repeated measures ANOVA. SD: Standard deviation

Table 5: Comparison of mean scores of effective coping styles (problem-focused coping) in the two experimental and control groups, before, immediately after, one month after, and two months after the intervention

Variables	Group	Intervention				P*		
		Before M (SD)	Immediately after M (SD)	One month after M (SD)	Two months after M (SD)	Time	Intervention	Interaction
Effective-coping style	Intervention	39.51 (11.64)	43.13 (12.47)	43.37 (12.39)	43.86 (12.65)	0.008	0.001	0.017
	Control	32.96 (8.25)	32.96 (8.25)	33.55 (8.46)	33.55 (8.46)	0.196		
Statistic	Test	$t=2.472$	$F=8.354$	$F=6.457$	$F=7.513$			
	P	0.017	0.005	0.014	0.008			

*Repeated measures ANOVA. SD: Standard deviation

that cognitive-behavioral techniques help individuals modify negative or maladaptive thought patterns and behaviors, creating opportunities for positive learning experiences. It also leads to more adaptive thought and behavioral patterns that can alleviate patients' social and mental problems. According to the results of the present study, verbal self-study seems to improve the resilience in women victims of domestic violence. In contrast to the present study, Ghamari Kivi *et al.*^[34] reported a significant reduction in depression levels within the experimental group compared to the control group, both in within-group and between-group comparisons at the post-test stage; they also reported no significant difference between the means of the two groups regarding the resilience scale. That is, although the intervention had a positive impact on the mean scores of the resilience, the improvement was not statistically large enough to be considered a true effect. In explaining the conflicting findings of the above study, it can be said that cognitive-metaphorical behavioral therapy interventions solely emphasize on the role of thoughts and cognitions in influencing emotions and behaviors, while in addition to cognitive factors, other intrapersonal factors, such as spiritual, emotional, behavioral, and even physical factors, are involved in promoting resilience.^[35] In addition, lack of long-term follow-up, cultural differences, and number of participants in a study can all contribute to inconsistencies.

The results demonstrated that the effective coping style score improved over time in the experimental group, which aligns with other studies in Iran. According to another study conducted in Turkey by Emirza, the mindfulness-based empowerment program has been found to enhance self-compassion, self-esteem and coping levels in women who have experienced violence.^[36] Karimi *et al.*^[37] also demonstrated that mindfulness-based stress reduction therapy could be effective in increasing resilience and improving coping strategies. Fooladi *et al.*^[38] found that positive group training effectively impacts distress tolerance and coping strategies.

This study demonstrated that cognitive-behavioral self-study training is an effective method for improving resilience and enhancing positive coping strategies among women affected by intimate partner violence. Cognitive-behavioral therapy is a method by which individual learns to use all of their cognitive skills to adapt to problematic interpersonal interactions, therefore, leading to a reduction of avoidance strategies. This suggests that such interventions can empower women to better reasoning, and employing their personal strengths to make decisions when required, which ultimately enhances problem-solving ability.^[39]

In general, cognitive-behavioral therapies, including techniques like verbal self-study, have been employed

to optimize behaviors.^[40] A more adaptive response and coping style to interpersonal challenges requires healthy cognitive processing and exploration. As mentioned earlier, the verbal self-study helps individuals challenge cognitive impairment, fix cognitive errors, brainstorm ideas to find better solutions, and adopt more constructive behaviors.^[39] Also, given that cognitive-behavioral techniques, such as cognitive restructuring, confronting negative thoughts, positive self-talk, and problem-solving skills, are used in the training sessions of this technique, the client's negative automatic thoughts will gradually transform into positive and purposeful thoughts that are more consistent with reality, and on the other hand, they will acquire coping skills, such as problem-solving skills. In fact, it can be said that verbal self-learning training activates the executive function system and the behavioral inhibition system. On the other hand, verbal self-learning, by helping to develop inner speech, enables individuals to compensate for their deficiencies in problem-solving areas using the process of self-questioning and, accordingly, to take control of their behavior in problematic social and interpersonal situations. CBT sessions use cognitive-behavioral techniques, such as thought stopping, positive self-talk, interpersonal coping skills, and problem-solving skills. After several therapy sessions, on the one hand, the client's negative automatic thoughts are transformed into purposeful thoughts that are more consistent with objective reality, and their cognitive processing becomes more logical, the certainty of defective cognitive processes becomes less certain, and the individual's reality testing takes on new life and energy. On the other hand, the client is armed with coping skills, such as problem-solving skills, behavior management, courage training, assertiveness, and interpersonal skills. Considering that one of the approaches of cognitive-behavioral therapy is the Maikenbaum self-learning technique, this technique also teaches people the process of problem-solving and problem-solving in social situations. In fact, it can be said that verbal self-learning training activates the executive function system and the behavioral inhibition system. On the other hand, verbal self-learning, by helping to develop inner speech, allows people to compensate for their deficiencies in the areas of problem-solving using the self-questioning process and, accordingly, take control of their behavior in problematic social and interpersonal situations.

Limitations and recommendation

This study has several limitations. Among the limitations of the present study, the following can be mentioned: Among the women studied, differences in culture, beliefs, and tradition can be considered as an uncontrolled variable. Therefore, this variable is relatively controlled by random selection, but it will not be 100% under the researcher's control. There was a possibility of not answering the questions of the domestic violence questionnaire correctly

due to shame about talking about private issues, which the researcher solved by creating a private environment and then creating a sense of security and peace. Another thing is that the participants were selected from among women who referred to selected health centers. Accordingly, these samples could not be representative of women in society. Therefore, the results of this study should be interpreted and generalized with caution. There was a possibility of referring to a psychologist and taking psychology courses during the research due to the long follow-up process after training. Due to the persistence of violence, it is recommended to conduct follow-up tests at longer intervals in future research to ensure the stability of the changes made in the subjects. Also, because domestic violence is a function of the culture of each society, it is recommended to conduct similar research in other geographical areas.

Conclusions

Verbal self-study improves resilience scores and effective coping styles, but this effect is greater on resilience. The data of the present study showed that women exposed to domestic violence can be easily identified, and it is suggested that comprehensive health service centers provide a dedicated platform and location for screening, identifying, and managing cases of victims of violence or those at risk of domestic violence. Considering the effect of self-education, educational brochures should be prepared for victims of violence to accelerate recovery, rehabilitation, familiarization with counselling and support centers, and education on health promotion and methods of anger control and resilience in order to reduce domestic violence in women.

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Conflicts of interest

There are no conflicts of interest.

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