

# The effects of relationship enrichment counseling on marital satisfaction among infertile couples with a history of domestic violence

Mahboobeh Poorheidari<sup>1</sup>, Jila Ganji<sup>2</sup>, Sedigheh Hasani-Moghadam<sup>3</sup>, Marzieh Azizi<sup>4</sup>, Fatemeh Alijani<sup>5</sup>

<sup>1</sup>Faculty Member, Midwifery Department, Nursing and Midwifery School, Shahroud University of Medical Sciences, Shahroud, <sup>2</sup>Assistant Professor, Department of Reproductive Health and Midwifery, Sexual and Reproductive Health Research Center, Mazandaran University Of Medical Science, Sari, <sup>3</sup>Masters Student in Midwifery Counselling, Student Research Committee, Mazandaran University of Medical Sciences, Sari, <sup>4</sup>PhD Student in Reproductive Health, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, <sup>5</sup>Instructor of Midwifery, Department of Reproductive Health and Midwifery, School of Nursing and Midwifery, Mazandaran University of Medical Sciences, Sari, Iran

## ORCID

Mahboobeh Poorheidari: <https://orcid.org/0000-0002-0851-0430>;  
Fatemeh Alijani: <https://orcid.org/0000-0003-2777-4746>

## Abstract

**Context:** One method for improving marital satisfaction is to educate relationship enrichment programs to couples.

**Aim:** This study aimed to determine the effects of relationship enrichment counseling on the marital satisfaction among infertile couples with a history of domestic violence.

**Setting and Design:** This study was conducted in Imam Khomeini Hospital of Sari city in 2015.

**Materials and Methods:** This was a semiexperimental study with pre and postintervention measurements. The study was conducted in two intervention and control groups consisting of 44 infertile couples referred to Imam Khomeini Hospital of Sari city in 2015.

**Statistical Analysis Used:** SPSS 20 software was used for data analysis applying descriptive and inferential statistics (repeatedmeasures oneway ANOVA and twoway ANOVA).

**Results:** The means of marital satisfaction scores were obtained as  $3.4 \pm 0.36$ ,  $3.71 \pm 0.4$ , and  $3.87 \pm 0.28$  in intervention and  $3.44 \pm 0.47$ ,  $2.56 \pm 0.3$ , and  $2.52 \pm 0.33$  in control groups at pretest, immediate posttest, and 2 months after the intervention, respectively. There was no statistically significant difference in the mean score of quality of life between the two intervention and control groups at pre and postintervention ( $P = 0.75$ ). As evidenced by the repeatedmeasures ANOVA test, the relationship enrichment program was effective in boosting marital satisfaction score among infertile couples ( $P = 0.001$ ).

**Conclusions:** The enrichment program was effective in improving marital satisfaction and its all domains among infertile couples with a history of domestic violence.

**Keywords:** Domestic violence, Enrichment counseling, Infertile couples, Marital satisfaction

**Address for correspondence:** Mrs. Fatemeh Alijani, Department of Reproductive Health and Midwifery, School of Nursing and Midwifery, Mazandaran University of Medical Sciences, Sari, Iran. E-mail: [fatemehalijani1355@gmail.com](mailto:fatemehalijani1355@gmail.com).

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## INTRODUCTION

Infertility is the inability of couples in conceiving a child despite regular copulations and avoiding contraceptives within 1 year.<sup>[1,2]</sup> Infertility is a multidimensional crisis negatively affecting both couples and their families at different psychological, physical, and emotional levels.<sup>[3,4]</sup> The frequency of infertility has been reported between 10% and 15% in different studies.<sup>[5,6]</sup> Based on the report of the World Health Organization (WHO), around 80 million couples are affected with infertility worldwide.<sup>[7]</sup> Infertility has been reported in 10%–15% and 20% of couples in the United States and Western countries, respectively, and 2 million couples are added to these numbers annually.<sup>[8]</sup> Overall, infertility affects approximately one-fifth of couples around the world.<sup>[9]</sup> Psychological impacts of infertility are resulted from being childless, having aimless life, cut generation, and failing in conceiving a child.<sup>[10]</sup> This major psychological problem leads to low self-esteem; insecurity; low confidence; feeling of guilt; and psychological disorders such as depression, anxiety, mental conditions, fear of loneliness, marital conflicts, sexual failure, and finally domestic violence.<sup>[9,11,12]</sup>

Domestic violence is the most common form of violence against women and a major general health issue.<sup>[13]</sup> Violence is a behavioral pattern trying to force and control a close relative by using fearful, threatening, and agonizing gestures.<sup>[14]</sup> Individuals exposed to domestic violence are prone to psychological problems such as anxiety, depression, fear, nutritional problems, sexual disturbances, obsession, posttrauma stress disorders, and chronic physical and health problems.<sup>[15,16]</sup> From other consequences of violence against women are low health status in them, breaks in family chain, and failure in performing wife role, which negatively affect marital satisfaction.<sup>[17]</sup>

Domestic violence against infertile women is relatively common. According to the WHO, 45% of all women face domestic violence.<sup>[18]</sup> In a study on Iranian infertile women, 61.8% of them had been exposed to domestic violence from their spouses.<sup>[18]</sup> In oversea studies, infertile women have also been in the verge of being violated by their husbands.<sup>[19-22]</sup> The high prevalence of domestic violence among infertile couples leading to numerous marital problems necessitates implementing counseling services by specialists, and preventive measures to obviate these potential threats.

One of the methods for boosting marital satisfaction among couples is educating relationship enrichment strategies.

These strategies aim to address the potential problems before reaching a critical level and to prepare and provide the couples with skills and perspectives required for coping with upcoming conundrums. The relationship enrichment is an approach stipulating on the acknowledgment of individuals' beliefs regarding the sources of problems. This approach assists the individuals to attain capabilities needed for problem solving. This program was initially introduced by Olson *et al.* in 1987. The program consisted of six main aims, each of them attending separate training activities. These purposes include boosting and expanding couples' capabilities; augmenting marital relationships; extending individual, marital, and familial goals; extending family financial budgeting; educating ten steps of resolving marital conflicts; and discovering major familial issues.<sup>[23]</sup> In their study in 2010, Etemadi O, *et al.* showed that relationship enrichment program boosted the quality of marital life among couples.<sup>[24]</sup> In a study in Iran which applied this model among infertile couples, both life quality and marital intimacy increased among the couples.<sup>[25]</sup>

Infertility is relatively of high prevalence in Iran. As well, the violence rate against infertile women is high; they are susceptible to social and psychological problems, hindering them from conceiving a child. On the other hand, no studies have yet explored the impacts of counseling-based interventions on improvement of marital problems among Iranian infertile couples. Therefore, we here aimed to assess the effects of relationship enrichment counseling on marital satisfaction among infertile couples experiencing domestic violence.

## MATERIALS AND METHODS

The current study was a double-blinded, randomized controlled clinical trial performed with a pre- and post-intervention design and additional 2-month follow-up period. The study sample included infertile couples referred to the Imam Khomeini Hospital of Sari city in the north of Iran during 2015.

The inclusion criteria were (1) Iranian nationality; (2) age of 20–45 years; (3) elapsing at least 6 months from marriage and at most 10 years of infertility diagnosis; (4) a history of domestic violence; (5) monogamy in men; (6) no recent disturbing experiences such as loss of loved ones, incurable diseases in family members, and relocating or losing job within the past 6 months; and (7) no psychological or physical diseases (such as diabetes, rheumatoid arthritis, and depression). The exclusion criteria included

(1) becoming pregnant during the study, (2) missing more than two sessions by the couple or one of them, or being relocated, (3) not willing to continue the study, and (4) participating in similar counseling programs in other centers.

Based on accessible sampling, 104 couples were initially registered, from whom 36 and 34 couples were excluded due to not meeting the inclusion criteria and not willing to participate in the study, respectively. The qualified couples were enlisted. The couples were then randomly allocated to either intervention (22 couples) or control (22 couples) groups by block randomization (block size of 4). For blinding, central randomization was applied in which the randomized sequence of numbers was prepared by a person outside the research team based on codes assigned to the participants at registration step. The sample size in each group was calculated by the equation of sample size determination in interventional studies considering  $\mu_1 - \mu_2 = 10.5$ ,  $\delta_1 = 13.8$ ,  $\delta_2 = 7.3$ , 95% confidence interval, and power of 80%. Based on these, the sample size was calculated as 38 couples per group, which finally was elevated to 44 regarding 10% attrition rate.<sup>[26]</sup>

$$n = \frac{\left[ Z_{1-\frac{\alpha}{2}} + Z_{1-\beta} \right]^2 \left[ \sigma_1^2 + \sigma_2^2 \right]}{(\mu_1 - \mu_2)^2}$$

At the end, four couples from each of intervention and control groups were omitted due to missing more than two sessions, and the final analysis was performed on 18 couples in each group [Figure 1].

The data-gathering tools were demographic questionnaire scrutinizing demographic and clinical characteristics (infertility and marriage durations, history of addiction, etiology of female or male infertility, education level, occupation, income, and residency status), Standard Conflict Tactic Scale 2 (CTS2), and Enrich Marital Satisfaction Scale.

The standard Straus *et al.*'s Questionnaire of Domestic Violence (1979) has been modified in 1990 and 1996. The original version of this questionnaire included 39 questions reviewed by Kazhal *et al.* for being used in Iran.<sup>[27]</sup> Three questions related to sexual violence were omitted because of cultural conflicts, and the phrase "sexual partner" was replaced by "spouse." The validity of this questionnaire has been verified previously.<sup>[28]</sup> This tool evaluates violence in physical (12 questions), sexual (4 questions), verbal (6 questions), psychological (8 questions), and physical assaults leading to injuries (6 questions) domains. Positive

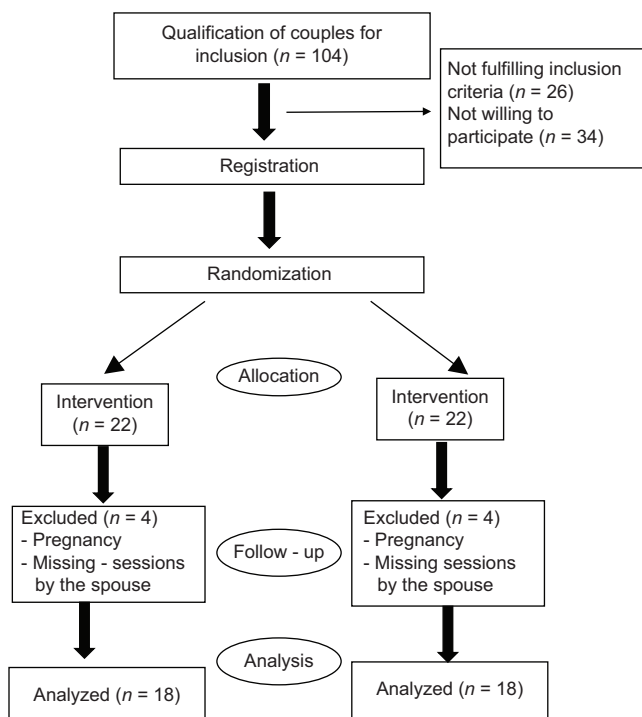


Figure 1: Consort diagram

response to any question rendered the participant a victim of violence. This tool was utilized for assessing inclusion criteria in the couples.

The Enrich Marital Satisfaction Scale consists of 115 questions (extended version), which is used to evaluate potential problematic marital issues. As well, this tool aims to identify strength points contributing to reinforce the marital relationship. This scale was instructed by David H Olson, David J Fournier, and Joen M Drakman. The scale consists of 12 subscales including ideal deviation (question numbers 1–5), marital satisfaction (6–15), personality issues (16–25), relationship (26–35), resolving conflict (36–45), financial management (46–55), leisure activities (56–65), intercourse (66–75), children and their breeding (76–85), family and friends (86–95), equality seeking roles (96–105), and religious orientation (106–115). For scoring these statements, a Likert scale was used with items from very high to few. Higher scores represented better marital satisfaction.<sup>[29]</sup> The validity of this questionnaire has already been verified (Cronbach's  $\alpha = 0.92$ ).

Before initiation of the study, the couples referred to our infertility clinic were qualified for entering into the study by one of the researchers (MSc of midwifery). The questionnaires (demographic, CTS2, and Enrich Marital Satisfaction Scale) were then completed by each group. In the intervention group, relationship enrichment counseling

was performed as group-based sessions (seven 90-min sessions weekly for 7 weeks) by a trained MSc. student of midwifery under the supervision of a Ph.D. student of clinical psychology. The sessions were held in the conference room of Imam Khomeini Hospital of Sari city. The seven sessions of the relationship enrichment program were designed based on the book entitled “Education of Marital Life Enrichment” authored by Oulia et al.<sup>[23]</sup> [Table 1].

On the other hand, the couples in the control group received no educations or counseling during the study and instead they were placed in the waiting list. Postintervention measurements were performed in both groups at the end of the intervention period and then after 2 months of follow-up. After the end of education programs and for meeting ethical guidelines, we thanked the couples in the control group and provided them with a CD containing the relationship enrichment educational contents.

### Statistical analysis

Data analysis was performed in SPSS 20 (SPSS Inc., IBM Corporation, University in Chicago). Descriptive statistics including mean and through standard deviation were used for presenting the data. Inferential statistical tests including repeated-measures one-way ANOVA and two-way ANOVA were applied. For comparisons of age and durations of marriage and infertility between the two

groups, independent sample Student's *t*-test was used. For comparing couples' addiction, infertility etiologies in females and males, education levels, occupation, income, and residency between the two groups, Chi-square and Fisher's exact tests were recruited.

### Ethical considerations

After obtaining required permissions from authorized organizations, the study received the ethical code of IR.SHMU.REC.1394.22 from the Ethical Committee of the Research and Technology Deputy of Shahroud University of Medical Sciences. Furthermore, after noting the aims and methods of the study, informed written consents were acquired from the participants. The participants were ensured that their responses will be merely used toward the aims of the study and their information will be unnamed and confidential. They were also informed that they can leave the study at any time, and their decisions will not affect the health services presented to them as their rights.

### RESULTS

The demographic information of infertile couples in both intervention and control groups is shown in Table 2.

The results of this study revealed that the intervention statistically significantly increased the means of marital

**Table 1: The program of relationship enrichment counseling in infertile couples**

Item	Subject	Aims
1	Acquaintance with other members, expressing the logics and the goals of education sessions	Acquaintance with other members Knowing about the aims
2	Cognitive open interpretation counseling	Acquiring commitment for regular participation Viewpoints of each couple toward the problem Learning about types of illogical beliefs about infertility Educating A-B-C principles of infertility Coping styles against illogical beliefs about infertility
3	Intimacy counseling between the couples	Defining intimacy and its domains Educating on how to set intimacy Educating the intimacy methods Feedbacks of operating the solutions
4	Counseling on improvement of sexual relationship	Expressing the importance of sexual relationship Explaining the sexual cycle Factors impeding correct sexual relationship
5	Evaluation of conflict-resolving methods	Diagnosis and educational interventions regarding incorrect sexual myths Conceptual definition of marital conflict in infertility Comprehending that conflict is a natural phenomenon between couples Discovering routine conflict-facing strategies among the participants Educating the correct principles of conflict-resolving methods in infertility Training of correct methods of conflict resolution
6	Conflict resolution by educating problem-solving strategy	The impacts of self-attitude in problem solving in infertility Educating on how to face with the families Educating on how to face financial problems Educating on how to face sexual roles
7	Educating life management	Educating on how to face infertility Educating on how to face the families Educating on how to face financial problems Educating on how to face sexual roles

satisfaction, ideal deviation, personal characteristics, relationship, conflict resolution, financial management, leisure activities, sexual relationship, family and friends, equality roles, and religious orientation, both immediately after the intervention and 2 months after the intervention ( $P = 0.001$ ). On the other hand, the means of all the marital satisfaction parameters showed statistically significant declines both immediately and 2 months after the intervention in the control group ( $P = 0.001$ ). Regarding the marital satisfaction parameters at preintervention, no statistically significant differences were observed in the means of ideal

deviation ( $P = 0.44$ ), marital satisfaction ( $P = 0.39$ ), personal characteristics ( $P = 0.44$ ), relationship ( $P = 0.64$ ), conflict resolution ( $P = 0.77$ ), financial management ( $P = 0.55$ ), leisure activities ( $P = 0.44$ ), sexual relationship ( $P = 0.70$ ), family and friends ( $P = 0.67$ ), equality roles ( $P = 0.48$ ), and religious orientation ( $P = 0.75$ ) domains between the two groups [Table 3].

It was concluded that the counseling program was effective in improving marital satisfaction scores of infertile couples with a history of domestic violence [repeated-measures ANOVA test retrieved statistically significant results,  $P = 0.001$ , Table 4].

**Table 2: Demographic features and their distribution between the intervention and control groups in infertile couples with a history of domestic violence referred to Imam Khomeini Hospital of Sari, 2015**

Variables	Infertile couples with domestic violence		P
	Intervention	Control	
Age			
Female	35±8.05	33±6.36	0.422*
Male	35.38±7.42	32.16±7.42	0.419*
Marriage duration	7±4.10	4.77±3.55	0.092*
Infertility duration	5.94±3.76	4.33±3.49	0.140*
Cousin marriage			
Yes	4 (22.2)	4 (44.4)	0.157**
No	14 (77.8)	10 (55.5)	
History of living birth			
Yes	1 (5.6)	2 (11.1)	0.997***
No	17 (94.4)	16 (88.9)	
Female education			
Diploma or less	12 (66.7)	9 (50)	0.310**
Higher diploma	6 (33.3)	9 (50)	
Male education			
Diploma or less	12 (66.7)	13 (72.2)	0.717**
Higher diploma	6 (33.3)	5 (27.8)	
Female occupation			
Homemaker	13 (72.2)	12 (66.7)	0.717***
Employed	5 (27.8)	6 (33.3)	
Male occupation			
Unemployed	1 (5.6)	2 (11.1)	0.787***
Employee	3 (16.7)	3 (16.7)	
Worker	3 (16.7)	5 (27.8)	
Self-employment	11 (61.1)	8 (44.4)	
Residency			
Rural	13 (72.2)	13 (72.2)	0.999**
Urban	5 (27.8)	5 (27.8)	
Female marriage history			
First	17 (94.4)	15 (83.3)	0.301***
Second and more	1 (5.6)	3 (16.7)	
Male marriage history			
First	14 (77.8)	14 (77.7)	0.999***
Second and more	4 (22.2)	4 (22.2)	
Premarriage violence			
Yes	0 (0)	4 (22.2)	0.104***
No	18 (100)	14 (77.8)	
Financial status			
Poor	1 (5.6)	1 (5.6)	0.997***
Middle	13 (72.2)	14 (77.8)	
Good	4 (22.2)	3 (16.7)	

\*Independent sample Student's t-test, \*\*Chi-square test, \*\*\*Fisher's exact test. SD: Standard deviation

## DISCUSSION

This study aimed to assess the effects of relationship enrichment counseling on marital satisfaction among infertile couples with a history of domestic violence referred to Imam Khomeini Hospital of Sari city. The results showed that the enrichment counseling can be an appropriate method for improving marital satisfaction. Overall, the intervention applied here improved all the domains of ideal deviation, marital satisfaction, personal characteristics, relationship, conflict resolution, financial management, leisure activities, sexual relationship, family and friends, equality roles, and religious orientation. The marital satisfaction, however, was not of statistically significant difference comparing the two groups before implementing relationship enrichment program. After 7 sessions of the counseling program during 7 weeks, marital satisfaction showed significant alternations immediately post intervention persisting at 2 months afterward in both groups. Conclusively, it seems that enrichment counseling program was effective in improving marital satisfaction among infertile couples with a history of domestic violence.

In their study regarding the effects of educational relationship enrichment program on the peace and satisfaction among infertile couples (2016), Miri *et al.* demonstrated that marital satisfaction elevated at both immediately and 2 months after the intervention.<sup>[30]</sup> In another study by Oulia *et al.* addressing the impacts of relationship enrichment program on marital satisfaction among couples, they found that the mean satisfaction score significantly increased both immediately and after 2 months of intervention in comparison with preintervention status.<sup>[31]</sup> Etemadi O, *et al.* (2010) in their study on the effects of group-based enrichment program on marital life satisfaction and intimacy, reported significant efficiency of the intervention in upgrading satisfaction score in the intervention group compared to the control group.<sup>[32]</sup> In the

**Table 3: Comparisons of means and standard deviations of marital satisfaction aspects at pre-, post- and 2 months after relationship enrichment counseling program between the intervention and control groups in infertile couples with domestic violence referred to Imam Khomeini Hospital of Sari in 2015**

Variables	Groups	Times respective to intervention (mean±SD)			P (independent samples Student's t-test)		
		1	2	3	1	2	3
Ideal deviation	Intervention	3.46±0.61	3.85±0.72	4.11±0.44	0.447	0.001	0.001
	Control	3.66±0.85	2.66±0.75	2.73±0.72			
Marital satisfaction	Intervention	3.54±0.39	3.89±0.54	3.98±0.52	0.395	0.001	0.001
	Control	3.73±0.82	2.76±0.78	2.75±0.73			
Personality	Intervention	3.28±0.69	3.78±0.66	3.95±0.43	0.442	0.001	0.001
	Control	3.46±0.74	2.79±0.59	2.48±0.54			
Relationship	Intervention	3.39±0.69	3.70±0.68	3.78±0.56	0.645	0.001	0.001
	Control	3.49±0.57	2.57±0.50	2.62±0.53			
Conflict resolution	Intervention	3.30±0.77	3.66±0.50	3.77±0.53	0.771	0.001	0.001
	Control	3.23±0.65	2.56±0.47	2.50±0.56			
Financial management	Intervention	3.45±0.53	3.76±0.52	3.97±0.56	0.550	0.001	0.001
	Control	3.57±0.69	2.53±0.33	2.45±0.37			
Leisure activities	Intervention	3.38±0.44	3.58±0.68	3.86±0.52	0.444	0.001	0.001
	Control	3.21±0.77	2.28±0.49	2.30±0.44			
Sexual relationship	Intervention	3.73±0.64	4.07±0.54	4.11±0.53	0.705	0.001	0.001
	Control	3.81±0.69	2.61±0.56	2.57±0.52			
Family and friends	Intervention	3.59±0.51	3.67±0.38	3.88±0.42	0.675	0.001	0.001
	Control	3.51±0.58	2.63±0.40	2.57±0.52			
Equality roles	Intervention	2.94±0.53	3.09±0.58	3.41±0.59	0.482	0.001	0.001
	Control	2.80±0.70	2.29±0.38	2.37±0.41			
Religious orientation	Intervention	3.33±0.43	3.74±0.59	3.80±0.68	0.752	0.001	0.001
	Control	3.39±0.66	2.43±0.52	2.34±0.51			

1: Preintervention, 2: Immediately after intervention, 3: Two months after intervention. SD: Standard deviation

**Table 4: Comparing the effects of relationship enrichment counseling on marital satisfaction between two intervention and control groups of infertile couples with a history of domestic violence referred to Imam Khomeini Hospital of Sari in 2015**

Variable	Groups	Time respective to intervention (mean±SD)			P (independent samples Student's t-test)			Repeated-measures ANOVA 1, 2, 3
		1	2	3	1	2	3	
Marital satisfaction	Intervention	3.40±0.36	3.71±0.40	4.87±0.28	0.757	0.001	0.001	0.001
	control	3.44±0.47	2.56±0.30	2.52±0.33				

1: Preintervention, 2: Immediately after intervention, 3: Two months after intervention. SD: Standard deviation

study of Etemadi O, *et al.* (2008) assessing the impacts of relationship enrichment program on marital satisfaction in Kuwait, the satisfaction level increased in the intervention group both immediately and after 2 months of the program initiation.<sup>[33]</sup> These findings were in concert with our observations indicating significantly elevated marital satisfaction postintervention in the test group. A major concern in Iranian culture is childbearing, which puts couples under pressure to conceive. On the other hand, infertile spouses perceive their marital life in jeopardy (i.e., separation and loneliness). These infertility-related factors eventually lead to unsatisfactory marital life, low self-esteem, limited sexual intercours, and even domestic violence. Domestic violence is the most common violence form against women and one of the major general health concerns.<sup>[34]</sup> In explanation, it is notable that one of the ways for boosting marital satisfaction between couples is to provide them with relationship enrichment strategies which impart a substantial role in this field. This approach deals with the problems before being turned to crisis and equips couples with skills and intuitions required to encounter with

upcoming problems. The relationship enrichment approach highlights the importance of acknowledging individuals' beliefs regarding the source of problems. Therefore, this approach helps the couples to acquire necessary skills to deal with their difficulties.

Markman *et al.* (1993) evaluated the long-term impacts of relationship enrichment program on improving communicative skills between couples and showed that couples assigned to the intervention group had higher and more stable sexual, physical, and communicational intimacies than control couples.<sup>[35]</sup> This was in line with our study as we also observed significantly elevated scores in communication and sexual relationship domains in the intervention group. An intimate relationship is the key to resolve marital conundrums. Satisfaction in both spouses is met when they are adequately intimate with each other and cooperate together to resolve their life problems.<sup>[36]</sup> Furthermore, sexual relationship is itself an essential tool for reaching intimacy. In fact, a satisfactory intercourse has been closely linked to an intimate connection between

couples. Instead, unsatisfactory intercourse can as a source of marital conflicts.<sup>[37]</sup>

Etemati *et al.* studied the role of relationship therapy techniques on intimacy between couples. They reported that these techniques augmented emotional, logical, spiritual, social, and pleasure intimacies.<sup>[38]</sup> The findings of the recent study were in parallel to our observations regarding logical, spiritual, social, and pleasure intimacies. In fact, conflict resolution, religious orientation, family and friends, and leisure activities were among the domains which significantly increased following intervention. The ability to constructively resolve conflicts can assist couples to reach to an intimate and close relationship.<sup>[39]</sup> On the other hand, failure in resolving conflicts leads to incompatible relationships between couples, encompassing violating attitudes, insulting, reprimanding, criticizing, and physical harming. These events gradually terminate in hostility, hatred, and anger between couples<sup>[40]</sup> and ultimately lead to an unsatisfactory marriage. According to our findings, it seems that relationship enrichment counseling can effectively improve the marital satisfaction between infertile couples. Religious and beliefs can make the marital problems disappear. Furthermore, spending adequate leisure times together can strengthen marital satisfaction between couples.

## CONCLUSIONS

We demonstrated that the relationship enrichment counseling significantly affected marital satisfaction and its related domains among infertile couples with a history of domestic violence. It seems that social interaction of couples with each other, as well as with their friends and families, can improve their interaction abilities. The relationship and negotiation style in the families further highlights the role of social interactions in this matter. Intimate conversation and conflict resolution augment and enrich the marital relationship, leading to spouses' mental peace. Considering the improved marital satisfaction, the intervention applied here can be employed as an easy-to-learn, noninvasive, and helpful strategy. Performing marital counseling programs can promote marital satisfaction and therefore this framework can be employed by midwives in infertility clinics.

It is noteworthy that with time passing, long-term interventions can result in different outcomes. No controlled conditions and interindividual differences can affect the learning abilities of couples. It is recommended for researchers to assess the impacts of relationship enrichment counseling programs in longer durations and

higher number of sessions and to consider individualized counseling meetings.

## Conflicts of interest

There are no conflicts of interest.

## Authors' contributions

M. Poorheidari contributed with study conception, data collection, and drafting the manuscript. F. Alijani supervised the study design and helped with conducting this study. J. Ganji, S. Hasani Moghadam, and M. Azizi were the study advisors. All the authors critically evaluated the paper and provided the final draft.

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