



# A brief package of tele-sexual counseling based on Islamic emotion-focused therapy versus tele-sexual health education on sexual intimacy in pregnant women: A randomized clinical trial

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## Abstract:

**BACKGROUND:** Physical and emotional changes in pregnancy may reduce sexual intimacy. Pregnant women need empowerment through short-term cultural-based interventions regarding sexual intimacy for better expression of sexual beliefs and expectations. Since studies are limited regarding Islamic emotion-focused therapy (IEFT), this study was conducted to compare the effect of tele-sexual counseling (IEFT) versus tele-sexual health education on sexual intimacy in pregnant women.

**MATERIALS AND METHODS:** A parallel randomized clinical trial was conducted among 52 pregnant women with gestational age at least 20–24 weeks through convince sampling referred to Amir Social Welfare Clinic, who were randomly assigned into two groups (each group = 26 women). The intervention group received online six weekly IEFT, and the control group participated in online sexual health education. Primary outcome sexual intimacy was measured via Botlani's sexual intimacy questionnaire at baseline, end of intervention at week 6, and follow-up at week 10. Secondary outcome satisfaction was assessed via a satisfaction scale at weeks 6 and 10 of the intervention. Data were analyzed using Mann–Whitney, the T-test, the analysis of variance, and repeated measures in SPSS.

**RESULTS:** Sexual intimacy was not significantly different between the two groups at baseline. Sexual intimacy was significantly high in the intervention group in weeks 6 (intervention group:  $83.12 \pm 5.22$  versus control group:  $70.62 \pm 4.42$ ) ( $P < 0.001$ ) and 10 (intervention group:  $84.08 \pm 5.03$  versus control group:  $70.54 \pm 4.37$ ) ( $P < 0.001$ ). Satisfaction in week 6 was  $52.38 \pm 10.48$  in the intervention group versus  $42.69 \pm 10.98$  in the control group ( $P = 0.001$ ), and at week 10, it was  $55.58 \pm 10.71$  in the intervention group versus  $45.12 \pm 11.56$  in the control group ( $P = 0.001$ ), with more satisfaction in the intervention group.

**CONCLUSION:** Both short-term tele-interventions, IEFT or sexual health, improved sexual intimacy and satisfaction, but Islamic EFT was significantly superior. It seems women need cultural-religious-based interventions such as IEFT to facilitate positive sexual relationship changes, assertiveness in sexual emotion expression, and compassion through the sharing of skills with the husband that can continue individually even after intervention. The study findings can be applied to midwifery education, prenatal care booklets, couple and sex counselors and therapists, and other health care providers.

## Keywords:

Pregnancy, psychology intervention, randomized clinical trial, sexual health, women

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## Introduction

More than 60% of women and 40% of their partners experience decreased sexual desire, function, and pleasure during pregnancy. Emotional regulation in pregnancy is of great importance<sup>[1-3]</sup> and affects all dimensions of life.<sup>[4]</sup> Emotions are divided into positive and negative<sup>[3,5-7]</sup> feelings. Positive emotions in pregnant women reduce adverse maternal and fetal outcomes (such as morning sickness symptoms, lower physical and mental health status, and a lower risk of psychological distress during preterm or post-term delivery with inappropriate cervix preparation leading to medical interventions).<sup>[5]</sup> while negative emotions increase them.<sup>[3,6,7]</sup> Based on the literature, the prevalence rates of pregnancy stress are 33–37%<sup>[8]</sup> and anxiety are 35%,<sup>[9]</sup> respectively. Physical and mental changes during pregnancy modify women's emotions and can affect their sexual function by reducing sexual satisfaction and intimacy. Therefore, they need to be empowered by sexual intimacy. Emotion regulation is defined as the ability to comprehend, balance, and express emotions properly so that a lack of an appropriate emotion causes stress or anxiety and decreases the couple's intimacy.<sup>[10]</sup> On the contrary, appropriate expression of emotions releases catecholamines and corticosteroids<sup>[11]</sup> but reduces leptin secretion.<sup>[8,11]</sup> Pregnant women need to attend mental health promotion programs to improve their emotion regulation skills.<sup>[12]</sup> Emotion regulation enhances marital intimacy, which is one of the basic needs of human beings.

Intimacy consists of emotional, psychological, intellectual, sexual, physical, spiritual, aesthetic, social, recreational, and time dimensions.<sup>[13]</sup> Marital intimacy starts with conversation and self-disclosure, descriptions of previous romantic experiences with each other, as well as exchanges of love and affection, along with emotional (such as availability, support, and emotional expression) and physical (physical contact, gripping hands, and hugging) intimacy. Such behaviors will lead to sexually motivated behaviors, incitement, sexual intercourse, and ultimately sexual intimacy between the couple.<sup>[13]</sup> To improve sexual intimacy, as one of the most significant components of a couple's sex lives, several psychological approaches and specific treatment strategies have been proposed, such as communication therapy, psychoanalysis, cognitive-behavioral, psycho-educational, and emotion-focused.<sup>[14-16]</sup> Recently, great attention has been paid to emotion-focused counseling as a new approach.<sup>[15,16]</sup> According to Greenberg and Johnson (1999), the goal of emotion-focused counseling is to create a secure attachment between couples.<sup>[15]</sup> This treatment is focused on empowering appropriate emotional expressions between couples and emphasizes experiencing the present moment,

leading to modifications in couples' conversations about their emotions in a secure space.<sup>[16]</sup> The effectiveness of emotion-focused therapy (EFT) has been confirmed in several studies.<sup>[17-21]</sup> However, the results of one study noted that acceptance and commitment therapy was more effective than EFT.<sup>[22]</sup> In addition to emotion-focused therapies, other factors, such as spirituality, were also investigated in couples' therapy. Research reported an increase in the treatment effectiveness by incorporating the Biopsychosocial-Spiritual (BPS-S) model with EFT.<sup>[23]</sup> Considering the role of spirituality in couples' intimacy, the appropriate emotional expression of couples has also been emphasized in Islam. Islam has a positive opinion about sex, childbearing, and respecting pregnant women.<sup>[24,25]</sup>

God says, "And of His signs is that He created for you mates from your own selves that you may take comfort in them, and He ordained affection and mercy between you" (Quran; Rum, 21).<sup>[26]</sup> Furthermore, the Quran indicates: "It is He who created you from a single soul and made from it its mate, that he might find comfort with her." So, when he had covered her, she bore a light burden and passed some time with it. When she had grown heavy, they both invoked Allah, their Lord: "If You give us a healthy [child], we will be surely grateful (A'raf, 189)."<sup>[27]</sup> "Your women are a tillage for you, so come to your tillage whenever you like, (Quran 233, Baqara)."<sup>[28]</sup> Islam emphasizes the importance of cooperation, communication, and support between couples in pregnancy and childbearing.<sup>[27]</sup> The impact of Islamic teachings on marital culture and sex was investigated among Iranian couples in EFT studies conducted based on Islamic training in couple therapy.<sup>[24,25]</sup> This approach is contingent on the necessity of a proper understanding of the couple's personal characteristics, awareness of their responsibilities, and religious-moral commitment to strengthening marital life. It also highlights compassion, patience, and forgiveness in marital relationships, the promotion of effective verbal relationships, and resolving marital disputes according to Islamic teachings.<sup>[25]</sup> This method requires identifying the couples' needs and emotions while observing their appropriate incidence, which is the most important cause of change in couples' behavior.<sup>[25]</sup> In one study, the impact of emotion-focused counseling based on the teachings of Islam on promoting social adjustment and reducing marital conflicts in couples was examined.<sup>[21]</sup>

Another way to achieve sexual intimacy is through sexual health education during pregnancy,<sup>[1]</sup> which promotes awareness and improves sexual intimacy among couples. The World Health Organization (WHO) defines healthy sexual activity as a state of physical, emotional, psychological, and social comfort related to sexual

desires and behaviors.<sup>[29]</sup> Sexual health is considered as the correct gratification of sexuality to have a safe sexual experience away from threats, coercion, discrimination, and violence.<sup>[1]</sup> Couples' lack of awareness and negative attitude toward sexual intercourse during pregnancy, caused by feelings of taboo, guilt, or shame, fear of decreased attractiveness to the spouse, and fear of harm to the fetus during sex (e.g., rupture of the baby's amniotic sac), cause anxiety, stress, and reduction or discontinuation of sex without a medical cause, decrease emotional and affectionate relationships between the spouse, and ultimately reduce sexual intimacy.<sup>[30-32]</sup> Couples should talk about their concerns about sex and benefit from adequate training on sexual relationships during pregnancy.<sup>[33]</sup> In this vein, having awareness of physiological and sexual changes during pregnancy is an effective factor in improving sexual components in couples.<sup>[34]</sup>

The provision of sexual counseling-educational services has recently become popular with the growth of social media. Tele-online counseling and educational treatments during the COVID-19 pandemic have been introduced as critical factors for pregnant women, who are considered as vulnerable groups during pregnancy.<sup>[1]</sup> In Iran, pregnant women who participate in physiologic childbirth education classes receive limited sexual health information during pregnancy, but since the beginning of the COVID-19 pandemic, these services have been rendered neither in person nor online.<sup>[1]</sup>

Although the effectiveness of Islamic EFT was investigated in marital conflict, incompatible couples, and sexual problems,<sup>[10,21,35]</sup> its online impact on the sexual intimacy of pregnant women has been studied rarely compared to online sexual health education, and most of these studies were conducted without a control group or an active control group. In the present study, these two interventions were conducted online since sexual health education, as a marginal component of prenatal care, may not meet the educational needs of sexual intimacy in pregnant women. On the one hand, little attention has been paid to the emotional dimension of sexual intimacy, although it plays a significant role in regulating sexual emotions and behaviors during pregnancy. Considering Iran has encountered with low fertility rate,<sup>[36]</sup> it seems that culturally/religiously focused interventions based on the Iranian context (such as the current study) may increase pregnant women's sexual intimacy, leading to creating a good experience or pleasantness of pregnancy and future willingness of child bearing. Since Islam is the religion of most Iranian couples and Islamic beliefs may be considered an effective factor in sexual relations during pregnancy, it seems that the role of this cultural-spiritual factor in the sexual intimacy of couples has not been well

studied. Additionally, for the reason of sexual issues cultural taboos and barriers in couple, and even health providers' communication, more attention to sexual intervention in pregnancy are necessary.<sup>[1]</sup> To answer the study questions of which intervention IEFT or sexual education are more effective with more satisfaction, this study was conducted to compare tele-sexual counseling based on Islamic EFT versus sexual health education in pregnant women.

## Materials and Methods

### Study design and setting

An experimental study was conducted in parallel randomized clinical trial method with a pretest-posttest design with the control group.

### Study participants and sampling

Of the 86 pregnant women assessed for eligibility in the Amir Social Welfare Clinic, 52 women were selected through convenience sampling by the first investigator. Later, a code (from 1 to 52) was given to each woman. They were randomly allocated using a computerized random number sequence by a biostatistician. In this way, women were randomly assigned to the tele-counseling of the Islamic EFT group (intervention group) or tele-sexual health education group (control group). In the next stage, each group of 26 individuals was divided into subgroups (13 women in each subgroup). Figure 1. shows the steps of the study. Based on the inclusion criteria, married Iranian Shia Muslim pregnant women living in Yazd with a gestational age of at least 20–24 weeks (diagnosed based on first-trimester sonography), having a smartphone, being interested in taking part in the study, and having obtained a score of lower than 100 from Botlani's questionnaire were recruited. Exclusion criteria included misuse of alcohol or tobacco, medications affecting libido (according to the pregnant women's self-report), and reception of similar interventions simultaneously or in the last 6 months.

### Sample size calculation

The sample size was calculated as 52 based on a previous study<sup>[37]</sup> using the common standard deviation of 2.51, a confidence interval of 95%, a test power of 80%, and a 10% of sample loss.

### Data collection tool and technique

Followed by providing women with the necessary explanations about completing the questionnaires, participants were asked to complete the questionnaires at baseline, 6 weeks and 10 weeks on Porsline.

### Sociodemographic questionnaire

It is used to collect information about the age, occupation, and education level of women and their spouses,

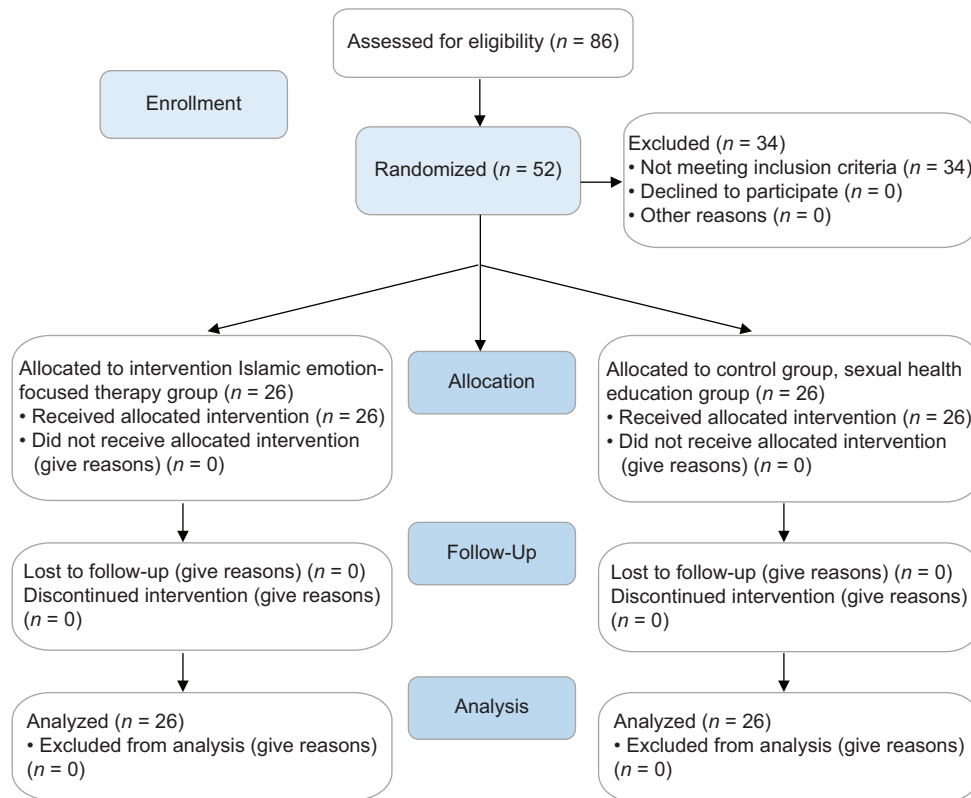


Figure 1: Consort 2010 flow diagram

willingness to get married, number of pregnancies and children, marriage duration, current gestational age, and willingness to get pregnant.

### Botlani's sexual intimacy questionnaire

Botlani *et al.*<sup>[38]</sup> designed a sexual intimacy questionnaire based on the Bagarozzi marital intimacy questionnaire<sup>[13]</sup> with a Cronbach's alpha coefficient of 81% and a reliability of 78%. This tool requires the respondents to answer each question based on a four-point scale from 1 to 4. Higher scores indicate higher levels of sexual intimacy in couples.<sup>[36]</sup> An electronic version of the questionnaire was previously used in the Farajkhoda, *et al.*, study (2021).

### Satisfaction with the intervention scale

A researcher-made questionnaire was designed based on the literature<sup>[1]</sup> with (Cronbach's Alpha = 0.87). Each question can get a score within the range of 1–10. Satisfaction with the intervention method was measured (as a secondary outcome) at 6 and 10 weeks in two groups. The electronic version of the scale was previously used in the Farajkhoda, *et al.*, study (2021).<sup>[1]</sup>

### Intervention

The intervention was performed online in six sessions of 90 minutes 1 day a week by the second investigator (who is a counselor in midwifery and certificated in EFT training) in cooperation with the first

investigator (a clinical psychologist and reproductive health specialist), the third (couple therapist), and the fourth investigator (religious counselor). Later, the investigators checked the participants' completion of online questionnaires, examined their assignments, and formed separate groups (intervention and control group) on WhatsApp to carry out the intervention. A brief package of the Islamic EFT group (content of each sessions and assignments) was adjusted based on related references [Table 1].<sup>[10,16,21,35]</sup> The control group received six sessions on tele-sexual health education [Table 2].<sup>[33,34]</sup> Sessions were held through verbal explanations, PowerPoint, video clips, pictures, and question/answer group chat. At the beginning of each session, the previous session's contents were reviewed, and their assignments were evaluated. For each group, daily reminders were sent by SMS to perform the assignments.

### Outcomes

Sexual intimacy was the primary outcome, and satisfaction with the intervention was considered as secondary outcome variables. These variables were measured at baseline, 6 weeks and 10 weeks in two groups.

### Statistical analysis

The Shapiro–Wilk test was run to determine the normality of the data distribution. To determine the difference between the two groups in terms of their demographic



**Table 1: A brief package including aims and contents of Islamic EFT sessions**

Sessions	Aims	Content of sessions	Assignments
First session	Welcome and introduction, explanation about meetings' rules, regulations, and explanation about the study objectives and intervention method	The effect of emotions during pregnancy on mother and fetus; definition of emotion-focused therapy; evaluation of Islamic knowledge of marital relationships in couples; determination of the main problem; assessment of the nature of the problem and type of relationship (evaluation); explanations about the importance of treatment and establishment of therapeutic agreement among spouses, the special position of pregnant women in Islam, the definition of sexual intimacy and its importance from the perspective of Islam, the couple's marital responsibilities in the teachings of Islam	Preparing a notebook and taking note of the type of emotional reaction in situations where couples have sexual conflicts
Second session	Skills to recognize all kinds of emotions and differentiate between thoughts, feelings, and behaviors	Defining primary and secondary emotions, exploring secondary emotions to achieve primary emotions with the aim of expanding experiences, focusing on and speaking about primary emotions, discovering effective events in the current relationships, the association between thoughts, feelings, and behaviors, teaching positive communication and verbal skills, managing emotions from the perspective of Islam and its impact on couples' sexual relationships, emphasizing on the role of spouse in strengthening positive emotions in pregnancy	Listing primary and secondary sexual emotions, boosting positive sexual emotions
Third session	The role of emotions in sex during pregnancy, skills of creating safe attachment, empathy, and compassion	Reaffirming the deep status of emotions in the context of attachment, discovering the insecure attachment of couples, rebuilding the couples' attachment from an Islamic point of view, including the role of man in creating a safe attachment in pregnant women to strengthen marital relationships, clarifying key emotional responses, expanding the emotional experience, recounting the needs of denied attachment needs, accepting unacknowledged feelings and empathy, committing oneself to strengthen the relationship through identifying the spouse's mismatched interests and respecting them	Taking note of the moment that the woman was deeply offended by her husband in sex, put oneself in other's shoes and have empathy toward them, practicing compassion
Fourth session	Sexual emotion management skills from the viewpoint of Islam through self-awareness and self-regulation	Facilitating the emergence of new solutions for solving old communication problems; re-framing new behaviors and patterns with the aim of stabilizing and strengthening the new behavioral cycles by spouses in sex; the impact of emotions on sexual intimacy; managing negative emotions of fear, anger, shame, and guilt in sex; courtship and seduction from the viewpoint of Islam; empathy between couples according to Islam; sexual function cycle and its changes in pregnancy and Islam's suggestions in this regard	Asking couples to pay attention to Islamic sexual teachings and their impact on their sex life
Fifth session	Conflict resolution skills, especially sexual conflicts, different positions in sexual relationships during pregnancy	Identifying and supporting communication organizing patterns in couples and their reinforcement in sexual life, the importance of sexual relationships and intimacy in pregnancy based on Islamic teachings, inhibiting factors in sex, teaching different sexual positions in pregnancy	Pay attention to each other's strengths and write them down up to the next meeting
Sixth session	Summing up the educational contents and receiving feedback from the meetings	Summing up the educational contents, determining the difference between the past negative interactive patterns before the intervention and the present patterns, reporting changes in the management of spouses' emotions and comparing them with those of the first session, emphasizing the use of Islamic teachings to solve sexual intimacy problems in the future, completing online questionnaires, setting the time of follow-up	Completing the online questionnaires (post-test) at the end of this session. And 10 weeks after intervention

variables, independent T-tests, Mann-Whitney tests, and Fisher's exact tests were applied. Given that the mean score of sexual intimacy had a normal distribution, an independent sample T-test, and an analysis of variance, and repeated measures were employed. The participants' satisfaction was measured via Wilcoxon-Mann-Whitney tests, considering the lack of a normal distribution. The significance level was set at  $<0.05$ .

### Ethical consideration

The research was approved by the Ethics Committee of Yazd Shahid Sadoughi University of Medical Sciences (Ethics code of IR.SSU.REC.1398.169) and registered in the Iranian Clinical Trial Registry (IRCT) (Code of IRCT20200112046091N1, prospectively). All 52 women signed informed consent and were free to withdraw.

**Table 2: Aims and contents of sexual health education sessions**

Sessions	Aims	Contents of sessions	Assignments
First session	Welcome and introduction, explanation about meetings' rules, regulations, explanation about the study objectives and treatment method	Explanations about the anatomy and physiology of male and female genitalia, definition of health and sexual intimacy	Writing about the causes of decline in their sexual intimacy during pregnancy
Second session	Reproductive system changes in pregnancy	Description of the anatomy and physiology of the mother's reproductive system during pregnancy and physical, mental, and psychological changes of pregnant women and their effects on sexual intimacy of couples	Pregnant women perception of their physical changes and sexual relation
Third session	The role of sexual relationships in the intimacy of couples	Describing the four stages of the sexual response cycle as well as the physical and mental differences between men and women in each stage of the sexual cycle	Bring on paper what you expect from your spouse in sex during pregnancy
Fourth session	Correcting common myths about sex in pregnancy	Correcting common false beliefs about sexual relationships in pregnancy such as fear of fetal injury or the impact of maternal sex on the fetus, describing and examining the patterns of sexual changes in pregnancy	Draw the picture that the mother can imagine of her fetus
Fifth session	Teaching different sex positions during pregnancy due to the physical limitations in this period	Description of safe positions for sex in pregnancy, a review of sexual disorders during pregnancy, the importance of satisfying sexual needs and their role in sexual intimacy of couples	Write about interesting sexual experiences during pregnancy
Sixth session	Summing up	Summing up the contents covered in all sessions; the impact of education on couples' sexual intimacy in the sixth session compared to the first session; emphasis on the use of sexual health education to solve sexual intimacy problems in the future	Completing online questionnaires, immediately after intervention

## Results

### Participant flow and numbers analyzed

The initial data collected from 52 pregnant women (26 women in each group) who fully completed the questionnaires and participated in the intervention were analyzed [Figure 1].

### Participant characteristic

The demographic characteristics were not significantly different between the two groups [Table 3].

The mean score of the primary outcome variable, sexual intimacy, was  $65.92 \pm 3.32$  in the intervention group and  $65.19 \pm 4.72$  in the control group at baseline, respectively, without significant difference between the two groups ( $P = 0.52$ ). Sexual intimacy at week 6, in the intervention group was  $83.12 \pm 5.22$  versus the control group  $70.62 \pm 4.42$ , ( $P < 0.001$ ) and  $84.08 \pm 5.03$  in comparison with the control group  $70.54 \pm 4.37$ , at week 10 showed statistically significant difference between two groups ( $P < 0.001$ ). Totally, between groups comparison was significant ( $P < 0.001$ ) [Table 4]. The LSD *post hoc* test showed that there is no significant difference between the mean score of sexual intimacy at week 6 and week 10.

The mean score of secondary outcome variable satisfaction with intervention was  $52.38 \pm 10.48$  and  $42.69 \pm 10.98$  for the intervention group and control group, respectively, in week 6 ( $P = 0.001$ ) and week 10 ( $55.58 \pm 10.71$  and  $45.12 \pm 11.56$ ,  $P = 0.001$ ), respectively. This difference was significantly

more in the intervention group than in the control group ( $P = 0.001$ ) [Table 5].

## Discussion

In accordance with the study aim, which intervention, IEFT or sexual education, is more effective? The results of the primary outcome variable, sexual intimacy, showed that the Islamic EFT group (intervention group) obtained significantly higher scores in weeks 6 and 10 compared with the control group. Couples should talk about their concerns about sex and receive adequate education about sexual relationships during pregnancy.<sup>[33]</sup> Islamic-based emotion regulation can effectively treat adolescents' sexual problems.<sup>[35]</sup> Cognitive-behavioral counseling and rational, emotional, and behavioral therapy with the important component of emotion regulation can help to improve sexual health.<sup>[39,40]</sup> EFT has a positive effect on increasing sexual intimacy and interpersonal forgiveness in couples with marital conflict,<sup>[16,18,21]</sup> which confirms the findings of our study.<sup>[18,21,35]</sup> EFT was significantly effective on women with premenstrual dysphoric disorder, increased their self-compassion and sexual functioning, and reduced their pain and burnout perceptions in couples.<sup>[41]</sup> EFT significantly increased marital intimacy in women with breast cancer.<sup>[17]</sup> Emotionally-based couple therapy was found to significantly increase the physical and emotional sexual satisfaction of infertile couples.<sup>[42]</sup> These studies were in line with the present study in terms of the type of education or target group.

**Table 3: Demographic characteristics of women in the two study groups**

Variables	IEFT (intervention group) (n=26)	Sexual health (control group) (n=26)	*P
Age* (year)	28.27±5.50	27.00±3.52	0.326
Spouse's age* (year)	32.04±5.37	30.69±3.33	0.283
Duration of marriage** (year)	5.08±4.56	3.88±3.04	0.875
Gestational age* (week)	26.12±2.39	26.35±2.87	0.099
Occupation***			
Housewife	22 (84.6)	23 (88.5)	1.000
Employed	4 (15.4)	3 (11.5)	
Spouse's occupation***			
Private job	14 (53.8)	13 (50.0)	23.829
Employee	10 (38.5)	11 (42.3)	
Manual worker	2 (7.7)	2 (7.7)	
Education level***			
High school	2 (7.7)	1 (3.8)	23.829
Diploma	10 (38.5)	12 (46.2)	
University	14 (53.8)	13 (50.0)	
Spouse's education***			
High school	2 (7.7)	1 (3.8)	0.818
Diploma	7 (26.9)	9 (34.6)	
University	17 (65.4)	16 (61.5)	
Number of pregnancies**			
1	19 (73.1)	17 (65.4)	0.408
2	7 (26.9)	6 (23.1)	
3	0 (0.0)	3 (11.5)	
Number of children**			
0	20 (76.9)	18 (69.2)	0.449
1	6 (23.1)	6 (23.1)	
2	0 (0.0)	2 (7.7)	
Type of pregnancy***			
Unwanted	3 (11.5)	2 (7.7)	1.000
Wanted	23 (88.5)	24 (92.3)	

Data presented as mean±S.D, \*Calculated based on independent samples t-test. \*\*Calculated based on the Mann–Whitney test. \*\*\*Calculated based on Fisher's exact test

Although both Islamic EFT and sexual health education could significantly increase sexual intimacy in pregnant women, the mean scores of sexual intimacy were higher in the intervention group than in the control group in weeks 6 and 10. Sexual intimacy education focuses more on increasing awareness about sexual function during pregnancy and correcting common myths that may act in the knowledge level of learning,<sup>[33,34]</sup> while emotion-focused intervention deals with learning skills and emotion regulation at the behavioral level of practice. Since the latter intervention leads to acquiring skills, it can have longer and greater effects.<sup>[16-18]</sup> Emotions are not lost in people; rather, they can be revived in different life situations and manifested inappropriately.<sup>[18,42]</sup> EFT provides the opportunity for couples to explore, expand, or revise their emotions, change their negative emotions by focusing on positive feelings, and teach the correct expression of unsealed needs without being accused by one's spouse.<sup>[10,11,21,42]</sup> This approach modifies the individuals' perception of translating emotion regulation processes to give a more efficient response to situations and learn more appropriate behavioral skills for better

communication with their spouse.<sup>[21]</sup> In addition, the increase in intimacy scores in the intervention group compared to the control group can be related to the combination of religious teachings with an emotion-focused approach. Given that the teachings of Islam are aligned with the emotion-management strategies, the approach administered to the intervention group had a synergistic and reinforcing effect on the positive effects of the emotion-focused approach.<sup>[10,21]</sup> In this vein, Islamic EFT had a significant effect on couples' social, emotional, and occupational adjustment and reduced marital conflicts.<sup>[21]</sup>

Islamic couple therapy promotes sexual intimacy by considering the necessity of awareness about the personality traits of the spouse, strengthening the components of effective communication from the viewpoint of Islam, granting the rights of men and women based on religious teachings, identifying attachment needs and styles, modifying negative emotions, and emphasizing on the correct expression of emotions. All these factors are among the most significant

**Table 4: Comparison of mean scores of the sexual intimacy in the two groups**

Variable	IEFT (intervention group) (n=26)	Sexual health (control group) (n=26)	*P	**P
Sexual intimacy				
Baseline	65.92±3.32	65.19±4.72	0.522	<0.001
Week 6	83.12±5.22	70.62±4.42	<0.001	
Week 10	84.08±5.03	70.54±4.37	<0.001	
**P	<0.001	<0.001		

\*Independent samples t-test. \*Calculated based on analysis of variance with repeated measures

**Table 5: Comparison of the satisfaction with the education methods mean scores between/in two groups**

Variable	IEFT (intervention group) (n=26)	Sexual health (control group) (n=26)	*P
Satisfaction with intervention			
Week 6	52.38±10.48	42.69±10.98	0.001
Week 10	55.58±10.71	45.12±11.56	0.001
**P	0.002	<0.001	

\*Mann–Whitney U test. \*\*Wilcoxon test

leading causes of behavior change in couples.<sup>[25]</sup> Individuals who rely on religion and have a sense of belonging to a higher divinity are less vulnerable to life problems.<sup>[43]</sup> They can manage uncontrollable situations by relying on God.<sup>[44]</sup> However, a study was conducted on pregnant Latin American women concluded that religion and spirituality did not reduce their perceived stress.<sup>[45]</sup> This can be due to the fact that neither pregnant women nor sexual intimacy were studied in this study. Moreover, the differences in the interventions' type, duration, method, and educational contents, as well as the variety of religious teachings attributed to different religions, can explain the discrepancy in the findings.

Assessment of another primary outcome variable, satisfaction with the intervention method, showed both groups were generally satisfied with the intervention method, but the mean satisfaction scores were significantly more in the intervention group at the follow-ups, that is, 6 and 10 weeks. A comparison of the effectiveness of face-to-face and online counseling with the cognitive-behavioral approach on the sexual intimacy of pregnant women showed that satisfaction with the online method was higher.<sup>[1]</sup> The results of another study showed that online educational counseling was more effective than face to face.<sup>[46]</sup> Another reason may be related to the COVID-19 outbreak. According to the statistics announced by the UN, women reported that the rate of spousal violence has increased significantly. In the present study, both groups were at appropriate levels of satisfaction with the intervention method, which can be explained by the short-term duration of both interventions. In other words, women were able to see the impact of interventions on their sexual intimacy in marital life within a short time. However, the satisfaction scores were significantly higher in the Islamic EFT intervention, which can be justified by the synergistic effect of incorporating their emotion management skills and effective expression of emotions, since

January 2021.<sup>[47]</sup> Furthermore, the incidence of economic problems in different countries across the world during the COVID-19 pandemic<sup>[48]</sup> has increased the number of pregnant women seeking counseling to improve their sexual intimacy. Therefore, considering the COVID-19 pandemic and the health organizations' announcement of quarantine,<sup>[1,48]</sup> online counseling<sup>[1]</sup> can be beneficial for pregnant women<sup>[1,46,48-51]</sup> who need to receive information and counseling without attending clinics and health centers. In addition, the application of cell phones to attend online counseling sessions facilitated the reception of counseling services for pregnant women as one of the vulnerable groups in the community.

In line with the study aim, which intervention is associated with more satisfaction, the second outcome variable satisfaction showed the women of the Islamic EFT group were at higher levels of satisfaction with the intervention method. It seems that Islamic EFT conforms with the women's religious beliefs and helps them to incorporate their emotion management skills and correct effective emotional expressions with Islamic teachings. As a consequence of the synergistic effect of this incorporation, these women showed higher levels of motivation to employ appropriate techniques for sexual relationships during pregnancy due to more behavioral changes and the feasibility of skills that can continue individually after the completion of the intervention. Considering the findings of this online intervention conducted during the COVID-19 pandemic, such online interventions can improve sexual intimacy in pregnant women, who are considered vulnerable groups.

### Limitation and recommendation

Strengths of the current study included RCT design with a control group and follow-up assessment, use of online effective short-term interventions (6 sessions), assessment of satisfaction, and feasibility of sharing learned skills with husbands. One of the limitations of the current



study was women's awareness of their intervention because of the nature of the counseling intervention; therefore, blindness was not applicable. This limitation had no adverse effect on the study findings because the two groups received interventions separately. Women's awareness of sexual intimacy may be changed by talking with other people in the community or through mass media or social networks. Further, the psychological state of women when completing the questionnaire would affect their responses, and those factors were managed by randomization. Another limitation of this research was the participants' concern about sexual intercourse due to the prevalence of COVID-19. They were worried that their husbands may be disease carriers because they work outside and meet many people during the day. To meet this challenge, the pregnant women were trained to use different positions of sexual intercourse that do not include face-to-face breathing. The pleasantness of sexual intimacy experiences in pregnancy is necessary to achieve the goal of increasing childbearing in Iran and to overcome the aging tsunami and low fertility rate.<sup>[36]</sup> This tele-intervention could be useful for women who live in rural areas where internet connections are available but sexual services are not completely available. Since sexual issues are rarely discussed between couples, it is necessary to pay more attention to these issues in clinical settings such as physiologic labor classes. In addition, the study findings can be applied to midwifery education, prenatal care booklets, couple and sex counselors and therapists, and other health care providers.

## Conclusion

Although both short-term tele-interventions, IEFT or sexual health, were found to improve sexual intimacy in pregnant women and satisfaction with the intervention, Islamic EFT was significantly superior. It seems women need cultural or religious-based interventions such as IEFT to facilitate positive sexual relationship changes, assertiveness in sexual emotion expression, and compassion through the sharing of skills with their husbands that can continue individually even after intervention. The study findings can be applied to midwifery education, prenatal care booklets, couple and sex counselors and therapists, and other health care providers.

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## Conflicts of interest

There are no conflicts of interest.

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