The effectiveness of sexual health counseling based on cognitive-behavioral therapy on sexual satisfaction and inefficient sexual beliefs of primigravida women

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Abstract:
BACKGROUND: Pregnancy may change sex life, this period may be associated with decreased sex, and this is due to fear of miscarriage, nausea and vomiting, fear of harm to the fetus, fatigue, and fear of ruptured membranes. Midwives could help them to improve their sexual life during this period. One of the important approaches to improving sexual life during pregnancy is cognitive-behavioral therapy (CBT). This nonmedical approach could improve misconceptions about sex during pregnancy. The aim of this study was the effect of sexual health counseling based on CBT on sexual satisfaction and inefficient sexual beliefs of primigravida women.

MATERIALS AND METHODS: This was a randomized clinical trial study, the research population being 52 pregnant women who were randomly divided into groups, the experimental (26) and the control (26). Before the sexual health counseling based on CBT, the Sexual Satisfaction Questionnaire and the Inefficient Sexual Beliefs Questionnaire were filled by both the groups. These standard questionnaires were completed three times (before, immediately, and 4 weeks after intervention). After pretest, eight sexual health counseling sessions (90 min) were performed for the experimental group. The control group received routine care. Data analysis was performed by using descriptive statistics tests, ANOVA, and post hoc tests by Bonferroni method in SPSS version 22. P < 0.05 was considered statistically significant.

RESULTS: The mean score of inefficient sexual beliefs in the interventional group before intervention, immediately after the intervention, and 1 month later was obtained 22.85 ± 9.57, 12.92 ± 7.25, and 7.86 ± 13.88, respectively (P < 0.001). The mean score of sexual satisfaction before the study, immediately after the intervention, and 1 month later was 88.77 ± 11.89, 95.62 ± 9.27, and 94.65 ± 8.28, respectively, in the experimental group (P < 0.001).

CONCLUSION: Sexual health counseling based on CBT could reduce inefficient sexual beliefs and increase the sexual satisfaction of the primigravida women during pregnancy, but most participants preferred fewer sessions.

Keywords: Behavioral-cognitive approach, beliefs, pregnant women, sexual satisfaction

Introduction

The pregnancy period can be affected by various physical and psychological factors, changes in emotions, sexual desires, frequencies of sexual intercourse, and sexual satisfaction.¹² This period requires more attention than ever before, but sometimes, the couple’s misconceptions and insufficient information about sex and negative attitude
toward these issues can cause problems. It is believed that avoiding sexual activity during pregnancy is the result of a socioreligious attitude. Beliefs about sex during pregnancy have been reported differently. Some pregnant women believed that sex in pregnancy improves the sexual relationship and fetal well-being. Some of them had negative beliefs about sex during this time, such as miscarriage, fetal infection, rupture of membrane, bleeding, preterm labor, and maternal infection.

On the other hand, misconceptions sometimes lead to disruption in a couple’s relationships and healthy sexual behavior, especially during pregnancy. Marital relationships have been described as the most important and fundamental human relationship because it provides the basic structure for building a family relationship and educating the next generation. Many factors could affect sexual function. Sexual satisfaction is defined as the judgment and analysis of each person’s sexual behavior. Sexual dissatisfaction may lead to divorce. Conflicts and sexual problems are always the first few causes of divorce and marital conflicts. Meanwhile, the role of sexual issues in marital problems and divorce is very obvious. Cognitive-behavioral counseling helps clients to strengthen communication skills and increase positive thinking about marital satisfaction. This training changes people’s thinking and communication with their world and reduces their anxiety. Anxiety during pregnancy may lead to preterm labor. In many medical centers in developed countries, treatment strategies based on psychological and behavioral concepts such as cognitive modification of negative thoughts are used as effective and efficient treatment strategies in the treatment of many diseases. Studies show that more than two-thirds of pregnant women do not receive any information from a doctor or midwife about sexual problems during pregnancy. Sexual dysfunction was reported 54.7% (2020) in pregnant women in Iran. On the other hand, sexual health education is associated with increasing sexual satisfaction, and it can produce positive results such as proper communication between couples, enjoying sex, boosting self-confidence and self-esteem, and making informed decisions at the individual and interpersonal levels.

In Masoumi study in 2018, after four-session sexual health consulting, the mean score of sexual satisfaction in the intervention group significantly increased after the intervention (68.32 ± 12.0 vs. 66.24 ± 12.32). In Heidari et al. study in 2018, the Female Sexual Function Index (FSFI) improved from 22.35 ± 9.90 to 27.32 ± 4.02 after sexual education. Mohammadi et al. showed that education had no significant effect on guilt about intercourse during pregnancy, but some dysfunctional sexual beliefs decreased significantly, such as intercourse is harmful to the fetus (P = 0.001). Furthermore, education had an overall positive effect on sexual health and sexual beliefs in pregnancy (P = 0.001). The findings of some studies in Iran showed that sexual health education was effective in improving women’s marital relationship and sexual function.

Despite the existence and effective prenatal care support in Iran, sexual counseling has not been completely assessed during pregnancy, and there are gaps in this field. According to the novelty of this study, we evaluated both sexual satisfaction and inefficient sexual beliefs with a standard cognitive-behavioral therapy (CBT) approach in eight sessions. In order to the role of midwives in perinatal care, and due to limited clinical studies in sexual consulting, this study was conducted to investigate the effect of sexual health counseling based on cognitive-behavioral approach on inefficient sexual beliefs and sexual satisfaction of primigravida women.

Materials and Methods

Study design and setting
This study a randomized clinical trial study with the control group, which was conducted in two Clinics of Isfahan/Iran.

Study participants and sampling
At first 52 Participants were divided into two experimental and control groups.

Inclusion criteria
First pregnancy, gestational age between 6 and 24 weeks, reading and writing literacy.

Exclusion criteria
Using psychiatric drugs, drug abuser.

All of the participants completed the Sexual Beliefs Questionnaire and the Larson’s Sexual Satisfaction Questionnaire (SSQ). Eight sessions (90 min) of cognitive-behavioral counseling were held on a weekly basis for the experimental group, and no intervention was performed for the control group. Classes were held as a group discussion with doing homework. The control group received routine care. In the end, the questionnaires were completed by individuals. During the 1-month follow-up period, no interventions were performed for the two groups, and after completing the questionnaires, statistical analysis was performed by analysis of variance method with duplicate and Bonferroni (version 22, IBM Armonak, N Y, U S A). In the end of the study, two brief counseling sessions were held for the control group due to ethical considerations.

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The questionnaire of inefficient sexual beliefs was designed by Mohamadi based on a review of internal and external texts and includes 13 items with a 5-point Likert score, from I totally agree and disagree. A high score on this scale indicates a higher rate of dysfunctional sexual beliefs. This tool covers the dysfunctional sexual beliefs of pregnancy, which has been performed by determining the validity of quality content and the opinion of ten health professionals of fertility and midwifery, obstetrics and gynecology, and psychology. Its reliability was 0.7 based on Cronbach’s alpha coefficient on Iranian pregnant women.[19]

The SSQ was designed by Larson (1988). This questionnaire had 25 questions and 4 components: sexual desire, sexual attitude, sexual quality of life, and sexual compatibility, and it measures sexual satisfaction based on the range of Likert five options (25–125) for women. The score between 25 and 41 shows low, score between 42 and 84 shows moderate, and score above 85 shows a high level of sexual satisfaction. The reliability of this questionnaire was obtained by Bahrami through Cronbach’s alpha 0.803 for positive questions and 0.778 for negative questions and ICC (Intra Class Correlation) 0.801.[20]

Ethical considerations
The present study was registered in the Ethics Committee of Shahid Sadoughi University of Medical Sciences with Ethics Code (IR.SSU.REC.1397.112) and IRCT Code (IRCT20181207041875N1).

Results

According to the results, the mean age of the experimental group was 26.27 ± 4.86 and in the control group was 26.50 ± 5.71. The result of the independent t-test did not show a significant difference in the mean age of women in the two groups (P = 0.876).

The mean score of inefficient sexual beliefs was 22.85 ± 9.57 before the intervention, 12.92 ± 7.25 immediately after the intervention, and 13.88 ± 7.86 1 month later in the intervention group (P < 0.001). In the control group, the mean score of inefficient sexual beliefs was 21.19 ± 6.24, 21.31 ± 6.14, and 20.62 ± 6.19, respectively [Table 1]. The results of the Bonferroni follow-up test showed that in the intervention group, there is a significant difference between two times (P < 0.001) [Table 2]. The mean score of inefficient sexual beliefs in the intervention group was significantly higher than the control group after intervention and 1 month later (P < 0.001) [Table 3]. In the intervention group, the mean score of sexual satisfaction was obtained 88.77 ± 11.89 before the intervention, 95.62 ± 9.27 immediately after the intervention, and 94.65 ± 8.28 1 month later. In the control group, the mean sexual satisfaction score was obtained 89.35 ± 9.53, 86.19 ± 9.22, and 82.24 ± 5.94, respectively, before, after, and 1 month later [Table 4]. In the intervention group, the mean score of sexual satisfaction was significantly higher immediately after the intervention (P = 0.004) and 1 month later (P = 0.011) than in the control group.

The mean sexual satisfaction score did not differ significantly 1 month after the intervention and immediately after the intervention (P = 1.00). In the control group, there was no significant difference between the mean score of sexual satisfaction before and immediately after the intervention (P = 0.381). The mean sexual satisfaction score was significantly lower 1 month after the intervention than before the intervention (P < 0.001).

Table 1: The mean score of inefficient sexual beliefs in three stages of measurement in two groups

| Inefficient sexual beliefs | Group (n=26) mean±SD |
|----------------------------|---------------------|
|                            | Control group       | Intervention group |
| Preintervention            | 21.19±6.24          | 22.85±9.57         |
| Immediately after intervention | 21.31±6.14          | 12.92±7.25         |
| One month later            | 20.62±6.14          | 13.88±7.86         |

SD=Standard deviation

Discussion

The results of the present study showed that this approach decreased the inefficient sexual beliefs and improved the sexual satisfaction of pregnant women.

Mohamadi et al. achieved similar results in four sessions of sexual training in order to reform inefficient sexual beliefs in improving the quality of sexual life of pregnant women. Training did not significantly change the feeling of guilt and immorality of intimacy in pregnancy and the conception of not liking the organs of pregnancy, but it improved the inefficient belief of sexual intercourse’s vulnerability. It also reduced inefficient beliefs and increased the quality of sexual life.[19] Using a similar questionnaire is one of the common points of this study, but the number of counseling sessions was less. In addition, it was not significant in the follow-up period of correcting inefficient beliefs.

Afshar et al. study showed that the total score of FSFI and all domains in pregnant women was significantly higher after sex education in the intervention group

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Table 2: The mean score of inefficient sexual beliefs before, after, and 1 month after the intervention in two groups

| Groups | Time (1)               | Time (2)                        | Benchmark error | Average difference (1-2) | P*       |
|--------|------------------------|---------------------------------|-----------------|--------------------------|----------|
|        | Before the intervention | Immediately after intervention  | 0.0834          | 9.923*                   | <0.001   |
|        | Before the intervention | One month after intervention   | 1.148           | 8.962*                   | <0.001   |
|        | Immediately after intervention | One month after intervention   | 0.734           | −0.962                   | 0.589    |
| Control | Before the intervention | Immediately after intervention  | 0.834           | −0.115                   | 1.000    |
|        | Before the intervention | One month after intervention   | 1.148           | 0.0577                   | 1.000    |
|        | Immediately after intervention | One month after intervention   | 0.0734          | 0.0692                   | 1.000    |

*P<0.05. Bonferroni posttest results (paired comparisons)

Table 3: Comparison of the mean score of inefficient sexual beliefs in two groups

| Time                  | Benchmark error | Average difference between two groups | P*       |
|-----------------------|-----------------|----------------------------------------|----------|
| Preintervention       | 2.239           | −1.654                                 | 0.464    |
| Immediately after intervention | 1.864           | 8.385*                                 | <0.001   |
| One month later       | 1.962           | 6/731*                                 | 0.001    |

*P<0.05. T-test

Table 4: The average score of sexual satisfaction in three stages of measurement in two groups

| Sexual satisfaction     | Group (n=26) means±SD |
|-------------------------|-----------------------|
|                         | Control group         | Intervention group             |
| Preintervention         | 89.35±8.53            | 88.77±11.89                     |
| Immediately after       | 86.19±9.22            | 95.62±9.27                      |
| One month later         | 82.04±5.94            | 94.65±8.28                      |

SD=Standard deviation

than in the control group.[21] Sacomori and Cardoso showed that sexual intercourse reduced significantly during pregnancy among Brazilian women and they had a negative attitude toward sex during pregnancy.[22] Wannakosit and Phupong examined the effect of sex training on changing sexual behaviors and inefficient sexual beliefs in pregnant women between the two trained and uneducated groups in their study.[23] This study is not consistent with the present study. However, the follow-up period was longer in this study; no effect on sexual behavior was observed among the trained and uneducated groups. Sexual education during routine prenatal care may improve women’s sexual well-being during pregnancy and sexual function improved.

Naim and Bhutto in their study in Pakistan showed that the mean frequency of sexual contact during pregnancy was less than before pregnancy (1.6 times/week vs. 3.5 times/week). It is the responsibility of midwives and health-care providers to dismiss fears and make clear any misconceptions regarding sexuality during pregnancy.[24]

The results of Nezamnia et al. study showed that CBT in comparison with the routine training during pregnancy increases the FSFI and self-efficacy score of pregnant women.[25] Green et al. in a pilot study showed that cognitive-behavioral group treatment reduced perinatal anxiety.[26] These studies showed that the cognitive-behavioral approach is an effective approach during pregnancy. CBT enhances sexual skills and expressing emotions, and thus improves women’s sexual desire, and overshadows sexual satisfaction by interacting with their spouses, especially in the area of sexual intercourse.[26] In the study by Masoumi et al., four sex training sessions were performed for pregnant women.[27] This study had fewer sessions and did not have the psychological approach as compared with the present study, but the target group was common. Gharadaghi et al. compared the effect of cognitive-behavioral counseling with interpersonal psychotherapy on marital satisfaction of pregnant women.[28] In this study, the target group and the number of group counseling sessions similar to the present study was the instrument which was used, but they did not have a follow-up period. The results of this study are consistent with the present study.

A study by Navidian et al. showed that group sex training had a positive effect on the quality of marital relations and sexual satisfaction of pregnant women.[29] This study is consistent with the present study in terms of the target group, but it did not have a follow-up period. In a study by Bokaie et al. (2019), sexual health counseling was associated with improved sexual function and sexual satisfaction in lactating women.[30]

Limitation and recommendation

Due to the sociocultural differences of pregnant women, this study should be done with caution to generalize to all pregnant women. In addition, home exercise was difficult for some pregnant women and required reminders.

Strengths of the study include the application of the CBT approach to evaluate sexual satisfaction in pregnant women, while most studies were on sexual satisfaction and sexual function. We recommend sexual health
counseling to improve insufficient beliefs and sexual satisfaction of pregnant women in all prenatal centers.

Conclusion

The results of the study showed that counseling based on cognitive-behavioral approach is effective in reducing the score of inefficient sexual beliefs and increasing sexual satisfaction of first pregnant women. Most participants found counseling to be effective in improving the mental health of themselves and their baby and improving the marital relationship with their spouse, but they wanted to have fewer counseling sessions.

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Conflicts of interest

There are no conflicts of interest.

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Table 5: The mean score of sexual satisfaction before, after, and 1 month after the intervention in two groups

| Groups          | Time (1)                      | Time (2)                      | Benchmark error | Average difference (1-2) | P*   |
|-----------------|-------------------------------|-------------------------------|-----------------|--------------------------|------|
| Intervention    | Before the intervention       | Immediately after intervention| 2.031           | 6.846                    | 0.004|
| (n=26)          | Before the intervention       | One month later               | 1.936           | -5.885                   | 0.011|
|                 | Immediately after intervention| One month later               | 1.471           | 0.962                    | 1.000|
| Control         | Before the intervention       | Immediately after intervention| 2.031           | 3.154                    | 0.381|
| (n=26)          | Before the intervention       | One month later               | 1.936           | 7.308                    | 0.001|
|                 | Immediately after intervention| One month later               | 1.471           | 4.154                    | 0.020|

Table 6: Comparison of the mean score of sexual satisfaction in two groups

| Time              | Average difference between two groups | Benchmark error | P    |
|-------------------|--------------------------------------|-----------------|------|
| Preintervention   | 0.577                                 | 2.988           | 0.848|
| Immediately after | -9.423*                               | 2.565           | 0.001|
| One month later   | -12.615*                              | 2.000           | >0.001|

*P<0.05. Bonferroni posttest (paired comparisons)
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