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The effect of educational classes during pregnancy on the level of sexual satisfaction after delivery in nulliparous women

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Abstract:

BACKGROUND: In the postpartum period, changes in sexual desire and marital satisfaction can be seen. Learning and giving enough information on changes in pregnancy and postpartum can help to increase marital satisfaction. The purpose of this study was to determine the effect of prenatal training on the level of postpartum marital satisfaction in nulliparous women.

METHODS: This study is a semi-experimental two-group study in which 150 nulliparous women were divided into two groups: control and intervention groups. The samples into intervention group received routine prenatal care and eight sessions of prenatal education with a training package (educational pamphlet on sexual health and sexual issues and an educational CD on pregnancy and pelvic exercises), and the control group received only routine prenatal care along with a pregnancy education pamphlet. Marital satisfaction was measured before intervention during pregnancy and 3 months after delivery (after intervention) using the ENRICH Marital Satisfaction Scale. Data were analyzed using *t*-test, paired *t*-test, Mann–Whitney, and Chi-square test.

RESULTS: There was no significant difference in demographic and obstetric variables and pregnancy status between the two intervention and control groups ($P > 0.05$). There was no significant difference in marital satisfaction during pregnancy between the two groups (before intervention) ($P > 0.05$). However, there was a significant difference in the level of postpartum marital satisfaction in the intervention group ($P < 0/05$). So that, the average marital satisfaction is increased from 52.2 to 64.6.

CONCLUSION: The results of this study show that eight sessions of prenatal education class with a training package (educational pamphlet on sexual health and sexuality and training CD of prenatal and pelvic floor exercise) can improve postpartum marital satisfaction in women.

Keywords:

Childbirth, education, postpartum, pregnancy, sexual satisfaction

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Introduction

A healthy sexual relationship includes an informed and positive tool of sexual energy in the direction of an increase in self-esteem, sexual health, and an emotional relationship and development of personality with a reciprocal benefit for the couples. Marital satisfaction is associated with mental health, general happiness, and successful social interactions and professional outcomes.[1] marital satisfaction refers to judging and analyzing people's sexual behavior that they consider enjoyable.[2] Thus, in women, where there is no satisfactory sexual activity, a variety of sexual problems occur.[3] It is estimated that about 80% of marital conflicts and incompatibilities are due to marital dissatisfaction.[4-6] It has also been proven that marital dissatisfaction is the cause of many psychological disorders and increased

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infidelity and divorce rates.[4-6] In other words, sexuality and sexual functioning are important aspects of one's life experience. Greater sexual dysfunction among women (43%) compared to men (31%) has been reported in the general population.[7] The prevalence of sexual dysfunction during pregnancy has been reported to be 46.6% in the first trimester, 34.4% in the second trimester, and 73.3% in the third trimester[8-10] Sexual dysfunction can affect physical and psychological health status and well-being and also quality of life.[11,12]

Feelings of marital satisfaction vary in different stages of life, but pregnancy and childbirth are undoubtedly one of the most important events in any woman's life.[13] Marital satisfaction decreases due to physical and psychological changes during pregnancy.[14] Certain changes occur in sexual desire and marital satisfaction after delivery.[15] Widespread physical and psychological changes in the postpartum period, responsibility for child care, concerns about adapting to new conditions and lack of awareness in most mothers, challenge having desirable sexual relationships,[16] while some studies have shown that there will be no change in marital satisfaction after delivery.[17] Lack of knowledge and preparation for sexual health issues postpartum can be distressing for women, and their partner, while also negatively impacting on their ability to adapt to their new role as mothers.[18,19] Over 43% of women experience sexual problems after childbirth, and only a few (15%) consult health-care workers about these problems. Surveys have shown that only 29% of women consult their physician about starting sexual intercourse, with only 18% receiving information about potential problems and changes in postpartum sexual activity.[20]

Factors affecting couples' marital satisfaction, sexual orientation and education, proper sexual health education, group education, and counseling are listed.[6,21,22] One of the problems facing today's Iranian society today is the lack of adequate information on sexual issues and the incorrect attitudes and beliefs about them.[2]

Therefore, appropriate sexual health training, stretching, and pelvic floor exercises during pregnancy can be one of the strategies for preventing sexual problems and promoting sexual health of women after childbirth. Duncan and Markman believe that training courses in pregnancy can lead to increased postpartum marital satisfaction in women.[23]

Prenatal training sessions include group or individual classes aimed at educating pregnant women and their spouses about delivery and childbirth, prenatal care, nutrition, and stretches during pregnancy and lactation, personal hygiene, mental health, and sexual health during pregnancy and postpartum period as well as other postpartum care.[24] The training sessions provide the opportunity to improve false beliefs and information about pregnancy, childbirth, and postpartum issues that cause many anxieties and lack of confidence in mothers during the pregnancy and postpartum. These training sessions also give pregnant mothers the opportunity to meet with other mothers who experience the same conditions, to think about and focus on personal needs and goals, resulting in less anxiety and complications during pregnancy and postpartum and increased self-esteem, with optimal effects on maternal and neonatal health.[21,25] Adequate education and information on pregnancy and postpartum changes can increase marital satisfaction during pregnancy and postpartum.[13] During pregnancy, women are highly motivated to learn and change behavior. Proper training can play an effective role in providing and improving the physical and mental health of mothers after childbirth.[22,26]

In the study of Mangeli *et al*. (2007),[27] educating pregnant mothers in pregnancy changes and how to adapt to them, leads to increased marital satisfaction during pregnancy, and also in the study of Navidiyan *et al*.,[28] sexual intercourse could improve the quality of marital relationships in pregnant women. Moreover, the study of Masoumi *et al*.(2017)[2] showed that sexual counseling during pregnancy could improve marital satisfaction. As well, the study of Babazade *et al*.[29] showed that training in sexual activity changes during pregnancy could have a positive impact on sexual relationships and increase marital satisfaction. A study (2006) by Schulz in the United States[30] showed that attending the pregnancy courses led to increased marital satisfaction in the postpartum period; in addition, the study of Midmer *et al*.[31] showed that attending pregnancy courses led to increased postpartum marital satisfaction.

Considering that postpartum marital satisfaction is one of the important issues on which little research has been done, the importance of sexual issues and the inevitability of pregnancy and childbirth in women's lives, as well as since no study has yet been performed on this subject in Iran, the present study aimed to investigate the effect of pregnancy courses on postpartum marital satisfaction in nulliparous women in Shahreza in 2017and 2018 H. S.

Materials and Methods

This quasi-experimental study was performed on postpartum marital satisfaction in all nulliparous women referring to Shahreza-Iran health centers. The researcher completed the ENRICH Marital Satisfaction Scale, personal- and pregnancy-related information questionnaire, and the Enrich Marital Satisfaction Questionnaire, with daily visits except the holidays, to six

selected health centers in Shahreza-Iran for all nulliparous women at gestational age of 16–20 weeks. The women who volunteered to participate in the study and fulfilled inclusion criteria including 18–35 years of age, Iranian nationality, residence in Shahreza city, living with their spouse, gestational age of 18–20 weeks, ability to read and write, lack of history of infertility, lack of history of mental illness, lack of receiving marital sexuality education, nulliparous and single pregnancy, lack of developing pregnancy complications (hypertension, diabetes, history of bleeding in pregnancy, etc.), marital satisfaction scores 30–40 (low marital satisfaction), and 40–60 (relative and moderate marital satisfaction) on the ENRICH scale, were divided into two groups of 75 each, namely, intervention and control. Exclusion criteria included formal education on sexuality during pregnancy or after childbirth, family disputes leading to divorce, fourth-degree vaginal Laceration, use of sex drive medicines, death or development of diseases and anomalies in the fetus, postpartum depression and undergoing treatment for it, and addiction in the participant or spouse.

A total of 150 samples were included in the study. Written consent to participate in the study was obtained from all samples. The samples were divided into intervention group in six groups of 10–15 people and received routine prenatal care in eight sessions of prenatal education along with a training package (educational pamphlet on sexual health and sexual issues and an educational CD on pregnancy and pelvic exercises), and the control group received only routine prenatal care along with a pregnancy education pamphlet. To prevent contact between the control and intervention groups, the training sessions were held on specific days of the week at the Amir al-Momenin Hospital (instead of the health centers) and the groups did not interact with each other. The training sessions were attended in eight 90-min sessions by a trained midwife according to the guidelines of the Ministry of Health and Medical Education for mothers at gestational age of 16–20 weeks. Training sessions were usually held every 2 weeks. The training content consisted of three parts, the first part addressed theoretical material (anatomical and physiological changes during pregnancy and postpartum, mental health, personal health, sexual health, education of sexual issues and stages, nutrition during pregnancy, different stages of delivery, childbirth delivery pain reduction methods, personal and sexual postpartum hygiene, training in appropriate sex during pregnancy, observing healthy sex during pregnancy, cases of non-sex during pregnancy and correcting myths regarding sex in pregnancy, family planning, and lactation during the 40 min, the second part includes a review of training materials and exercises performed in the previous session, answering mothers "questions and performing neuromuscular exercises and exercises during labor and delivery, monitoring the mothers' correct training 30 min and the third part was relaxation for 20 min.

During the training sessions, all pregnant women were asked to perform the exercises individually in the presence of the midwife so that the accuracy of the exercises could be monitored. During the training sessions, pregnant women were given CDs and educational pamphlets on sexual health and sexuality and educational CDs on pregnancy and pelvic exercises. Mothers were asked to do stretch and body relaxation exercises at least once a day for at least 15 min using a training CD containing mild music. In each session, the attendance list of mothers attending childbirth preparation classes was completed by the trained midwife.

The large hall of the clinic of Amir al-Momenin Hospital was designed for the convenience of the subjects and to prevent their interference with each other; to take classes and to complete a questionnaire. It should be noted that in the intervention group six samples (two due to unwillingness to attend educational classes, three due to personal problems, and one due to change of location) and in the control group three samples. Individuals (due to nonanswering of the location call) all were replaced in two groups and finally 75 samples in the control group and 75 in the intervention group. In this study, the data collection tools included an individual and pregnancy information questionnaire and Enrich's sexual satisfaction questionnaire. The study included demographic questionnaire and pregnancy, Inventory ENRICH's marital satisfaction has been. The Personal and Pregnancy Information Questionnaire was designed by the researcher using scientific resources and articles and studies of other researchers. Finally, the rate of marital satisfaction in all mothers was measured again 3 months after delivery using the Marital Satisfaction Scale (ENRICH scale) and the results were evaluated. If the study encountered a sample with severe sexual dissatisfaction, the sample would have been referred to a specialist, but fortunately we have not encountered it.

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Results

In the present study, 150 nulliparous women were studied in two groups of intervention (n = 75) and control (n = 75). Table 1 shows the demographic and midwifery characteristics of the research units by groups, in Table 1 to compare marital satisfaction before and

after the intervention in the two groups, and in Table 1 to compare the mean level of marital satisfaction before and after the intervention in both groups. The intervention and control groups are discussed.

As shown in Table 1, the two groups did not differ statistically in terms of demographic and midwifery characteristics.

The two groups did not show a significant difference in preintervention marital satisfaction score, but the postintervention marital satisfaction score was significantly higher in the intervention group compared to the control group [Table 2 and Figure 1].

The levels of marital satisfaction in this study were also examined before and after the intervention [Table 3], and the findings showed that the majority of the samples (60%) in the intervention group had relative or moderate marital satisfaction before the intervention, but after the intervention, the majority of the samples (74.66%) in the intervention group had a high level of marital satisfaction. This finding indicates an increased level of marital satisfaction in the intervention group. However, in the control group, before intervention, about 37.34% of participants had low marital satisfaction and around 62.66% had relative or moderate marital satisfaction, but after intervention, about 45.34% had low marital satisfaction. This indicates a decrease in marital satisfaction in the control group.

Discussion

Discussion in this study is related to the findings of a survey of 150 nulliparous women from mid-October 2017 to late May 2018. In the present study, the effect of educational pregnancy courses on postpartum marital satisfaction was investigated. Postintervention marital satisfaction level was significantly different in the intervention group compared to the control group. This result may be indicative of the efficacy of prenatal educational courses in nulliparous women group. A study by Mahnaz *et al.*,[32] showed that the structured educational package was found to reduce sexual dysfunction by improving knowledge of and attitudes toward the physical and psychologic changes that occur during pregnancy among the Iranian women attending routine prenatal care visits as part of a health-care center's program. A study by Afshar *et al*.[33] has also shown that education of sexuality during pregnancy along with prenatal care has led to improve sexual satisfaction in pregnant women.

According to the results of this study, educational courses during pregnancy and sex education during pregnancy also improved marital satisfaction in the intervention group. The notable point of the current study was provision of group training to nulliparous women. Group training for nulliparous women leads to the women's using each other's experiences (under coach control) and creating a friendly and intimate atmosphere, all of which result in boosting the impact of training courses on enhancement of marital satisfaction. In the study Rahimi *et al*. in,[34] exposure of pregnant women to

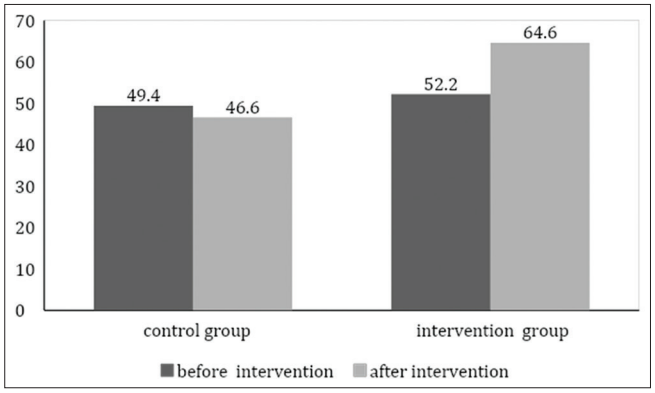

Figure 1: Comparison of marital satisfaction before and after intervention in intervention and control groups

Table 1: Demographic and obstetric characteristics of participants

Variables	Intervention group, *n* (%)	Control group, *n* (%)	*P*	Test
Education level				
Guidance school completion	22 (29.34)	24 (32)	0.784	Mann-Whitney test
High school diploma	43 (75.33)	41 (54.66)		
Academic	10 (13.33)	10 (13.34)		
Occupation				
Housewife	68 (90.66)	72 (96)	0.345	Chi-squared test
Employed	7 (9.34)	3 (4)		
Housing status				
Owner	51 (68)	37 (49.34)	0.065	Chi-squared test
Tenant	13 (17.34)	30 (40)		
Wife's family	11 (14.66)	8 (10.66)		
Gestational age (week)	18.38	18.39	0.986	Independent *t*-test
Age (year)	26.1	26.53	0.633	Independent *t*-test
Marital life duration	5.78	5.97	0.794	Independent *t*-test

group training was considered as a factor for increasing the confidence of these women, improving their mental status, creating a familiar, friendly and intimate atmosphere among them, and subsequently boosting of the impacts of the training. However, there have also been some inconsistencies in the study, for example, in the study by Bahadoran *et al*.,[1] in which face-to-face training during pregnancy has led to improved sexual performance and sexual satisfaction in couples.

Prenatal education especially in pregnant women at high risk is one of the most important effective factors to prevent the mortality rate and reduce perinatal complications, depression, anxiety, and the resulting complications.[35] The study of Babazade *et al*.[29] showed that showed that training in physical and sexual changes during pregnancy increased women's satisfaction with sexual relationships. In the study of Navidiyan *et al*.,[28] sexuality education during pregnancy improved the quality of marital relationships in mothers. In a study of 66 nulliparous couples by Schulz *et al*.,[30] a weekly, 2.5-h intervention program for 24 weeks resulted in the increase of marital satisfaction during pregnancy and postpartum period. The study of Mangeli *et al*.[27] showed that group training in natural changes in pregnancy period resulted in the increase of marital satisfaction in mothers. The study of Masoumi *et al*.(2017)[2] also found that sexuality education and counseling during pregnancy increased marital satisfaction in mothers. In fact, according to the present results, it can be argued that receiving accurate education and information on changes during pregnancy and postpartum period can lead to increased marital satisfaction in both periods. Lawrence[36] believes that the best way to help couples transition to parenting role and adapt to new conditions is to educate them about pregnancy and postpartum changes. In the present study, pregnant women's volunteering to participate in the study can be considered as a factor for holding pregnancy courses and furthering the impact of these courses. This has also been regarded as an important factor in the study of Bastani *et al*.[26]

In the present study, the marital satisfaction level increased in intervention group so that the mean score of marital satisfaction increased from 52.2 to 64.6, but in the control group, marital satisfaction score decreased from 49.4 to 46.6. These changes in the level of marital satisfaction in the intervention group after the intervention are due to the impact of effective training courses during pregnancy. Duncan and Markman,[23] Masoumi *et al*.[2] argue that attending pregnancy courses, conducting sexuality education, and attending counseling sessions during pregnancy lead to increased marital satisfaction in women after childbirth.[22] Pregnancy courses include group or individual classes aimed at educating pregnant women and their spouses about childbirth and birth, prenatal care, nutrition and stretches during pregnancy and breastfeeding, personal hygiene, mental health, sexual health during pregnancy and postpartum period as well as other postpartum care.[24] These classes provide an opportunity to correct the misconceptions and misconceptions of pregnancy, childbirth, and postpartum issues that cause many mothers anxiety and mistrust during pregnancy and postpartum. These classes also give pregnant women the opportunity to meet with other mothers who are facing their conditions, think and focus on personal needs and goals, thereby reducing anxiety and complications during pregnancy and postpartum period and leading to increased maternal self-confidence and optimal effects on maternal and neonatal health.[22,25] Training and providing enough information about changes during pregnancy and postpartum can increase the couple's sense of satisfaction during pregnancy and after childbirth.[13] During pregnancy, women are highly motivated to learn and change behavior. Proper education can play an effective role in providing and improving the physical and mental health of mothers after childbirth.[22,26] Schulz *et al*. also found in her study that mothers who had information and pregnancy problems during pregnancy and postpartum. They do not receive training in the characteristics and changes

Table 2: Comparison of marital satisfaction before and after the intervention in the intervention and control groups

Variables	Intervention		Control		*P*
	Mean	SD	Mean	SD	
Preintervention marital satisfaction	52.2	8.05	49.4	7.6	0.331
Postintervention marital satisfaction	64.6	6.18	46.6	10.30	<0.001

SD=Standard deviation

Table 3: Comparison of the mean level of marital satisfaction before and after intervention in intervention and control groups

Time	Group Index	Intervention, *n* (%)	Control, *n* (%)	Total, *n* (%)
Preintervention	Low marital satisfaction (30-40)	30 (40)	28 (37.34)	58 (38.7)
	Relative or moderate marital satisfaction (40-60)	45 (60)	47 (62.66)	92 (61.3)
Postintervention	Low marital satisfaction (30-40)	3 (4)	34 (45.34)	37 (24.66)
	Relative or moderate marital satisfaction (40-60)	16 (21.34)	41 (54.66)	57 (38)
	High marital satisfaction (60-70)	56 (74.66)	0 (0)	56 (37.34)

of this period, and they experience reduced marital satisfaction.[30] A study by Babazade *et al*.[29] on 87 pregnant women showed that physical and sexual change training leads to a positive impact on sexual relations and increased sexual satisfaction. However, this increase in marital satisfaction in the present study is greater than in the study of Babazade *et al*.[29] so that in the present study, in the intervention group had 60% moderate and 40% moderate marital satisfaction before intervention, but after intervention in the intervention group. About 74% had high marital satisfaction, 21% had moderate marital satisfaction, and 4% had low marital satisfaction, indicating a significant change in marital satisfaction in the intervention group. But in the intervention group, before intervention, they had 50% moderate marital satisfaction, 28% good marital satisfaction, and 10% poor marital satisfaction After intervention, 54% had good marital satisfaction, 39% had moderate marital satisfaction, and 6% had low marital satisfaction, which is not significant compared to the present study and did not lead to increased (high marital satisfaction) level.

However, we should keep in mind that the differences between the present study and the baseline study, the gestational age of the samples at the time of training, are the number of training sessions. In the present study, training sessions were conducted for 8 pregnant women every 90 min according to the instructions of the Ministry of Health. But in the baseline study, the training was conducted for 1 week in two 1-h sessions. Furthermore, in the present study, the gestational age of the samples was 16–20 weeks for enrollment in the study, but pregnant women up to 32 weeks of gestation were able to participate in the study. Due to the fact that mothers have different changes in sexual desire and perceived marital satisfaction in each trimester of pregnancy, these factors can cause differences in the results of the present study with the baseline study. It should be noted, however, that a study by Navidiyan *et al*. in 2016[28] showed that training in physical and sexual changes during five sessions led to 24–26 weeks' pregnant women, leading to improved marital relationship quality and marital satisfaction. Increase so that in intervention group preintervention had 10% marital dissatisfaction, 75% moderate marital satisfaction, 12.5% high marital satisfaction, and 2.5% marital satisfaction. However, after intervention, 2.5% of marital dissatisfaction, 47.5% moderate marital satisfaction, 45% high marital satisfaction, and 5% marital satisfaction were not significant. The results of the study showed no significant change in the level of marital satisfaction compared to the present study because in the present study, 74% of women had high marital satisfaction after intervention in the intervention group, due to differences in the results of studies on the number of sessions and the content of sessions and gestational age at enrollment.

In the study of Masoumi *et al*.(2017),[2] in 80 pregnant women with gestational age of 24–26 weeks who attended courses and received sexual counseling, marital satisfaction increased. The results of these studies regarding the increase of marital satisfaction are in line with the present study.

Conclusion

According to the results of these studies, proper training in changes during the pregnancy and postpartum period, sexual health education, and stretching and pelvic floor exercises during pregnancy can be one of the strategies to prevent sexual problems and promote sexual and mental health of women after delivery. Since women's mental health has a great impact on fetal health, child health and family health, promotion of mothers' mental health can play an important role in maintaining community health. According to the results of this study, the community health in the future can be guaranteed by improving the mental health of pregnant women.

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Conflicts of interest

There are no conflicts of interest.

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