Science Arena Publications
International Journal of Philosophy and Social-Psychological Sciences
ISSN: 2414-5343
Available online at www.sciarena.com
2020, Vol, 6 (1):19-29

The Effectiveness of Mindfulness-Based Cognitive Therapy Counseling on Marital Satisfaction and Pregnancy Concern in Nulliparous Women

Maryam Dafei[1]*, Fatemeh Shabani Farashah[2], Farideh Khavari[3]

[1] Artassistant Professor, Reserch center for Nursing and Midwifery care, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
[2] Master scince, Reserch center for Nursing and Midwifery care, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
[3] Midwifery tutor, Reserch center for Nursing and Midwifery care, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

.

***Corresponding Author**

Abstract: *Introduction: dimensions of marital satisfaction are influenced by pregnancy and poor marital relationship is the most stable predictor for pregnancy concern. Given the effects of concern on maternal and fetal health during this critical period, the present study was conducted to evaluate the effectiveness of mindfulness-based cognitive therapy on marital satisfaction and pregnancy concern in nulliparous women. Methodology: This two-group clinical trial study was conducted on pregnant women referring to medical centers of Yazd in 2018. Thirty nulliparous women (20-30 weeks) eligible for the study were randomly divided into control and test groups. Mindfulness-based cognitive therapy counseling was performed for eight test sessions, 2 hours weekly. Data were collected using demographic questionnaire, Enrich marital satisfaction questionnaire and pregnancy concern questionnaires in three stages of before, immediately and one month after the intervention in both groups. Descriptive statistics and parametric tests were used for data analysis by SPSS 16 software. Significance level was considered P <0.05. Results: The results revealed that the mean score of pregnancy concern in the two groups after the intervention and follow up was significantly lower than that of the control group (p = 0.009). Mean scores of marital satisfaction in the two stages after intervention and follow up were significantly higher than the control group (p<0.001). Conclusion: Based on the research results and the positive effect of mindfulness-based cognitive therapy counseling on increasing marital satisfaction and decreasing pregnancy concern, it is recommended to use this effective and useful method in health centers especially in labor preparation classes to improve the mental health of mothers.*

Keywords: *Mindfulness, Concern, Marital satisfaction, Counseling, Cognitive therapy.*

INTRODUCTION

Pregnancy is one of the most important, exciting, and frightening experiences a woman experiences in her lifetime. The experiences and mental health of a woman during pregnancy and after pregnancy are important for the health of the mother and her child (Mahmoudi et al., 2015). Many changes that occur during pregnancy in physical, mental, social dimensions and quality of life of pregnant women at different gestational ages can result in increased concern, anxiety and distress (Tabrizi and Barjasteh, 2015). Other stressful factors and events such as marital life and stressful relationship with spouse can increase the risk

of psychological problems for the woman during pregnancy. During this time, the major changes that mothers experience psychologically and physiologically can affect their marital satisfaction. Following a change in the apparent form of the body, the social and recreational activities of the pregnant woman and contact with friends and relatives are minimized. Due to the change in sexual desire, fear of abortion and damage to the fetus, feeling guilty, reduced sense of attractiveness, sexual intercourse is reduced during this period. Increased economic needs of the pregnant woman and family can cause financial problems for the family and changes in the physical and mental state of the pregnant woman and low back pain lead to disabilities in doing everyday affairs and routine household duties and roles and it can lead to adverse reactions and behaviors. Hence, all aspects of marital satisfaction are affected by pregnancy (Mangali et al., 2008).

A poor marital relationship is the most stable predictor of anxiety and other health issues during pregnancy (Aghayousfi et al., 2011). Pregnancy will cause significant changes in the relationship of the couples, especially if the women experience pregnancy for the first time. Evidence suggests that the level of marital satisfaction decreases during pregnancy. A stressful relationship with a spouse can increase the risk of psychological problems for a woman during pregnancy (Saberandi Farahani, 2014). Given the complications of anxiety and concerns about maternal and fetal health during this critical period, using complementary therapies such as mindfulness, which is an integrated approach to reduce stress and includes appropriate physical and mental training during pregnancy, can help women to have a healthy pregnancy with fewer complications (Duncan and Bardacke, 2010). Mindfulness can support the mother during pregnancy and afterward. Mindfulness-based interventions can reduce some of the undesirable consequences such as postpartum depression, anxiety, and stress. They also empower pregnant women to feel more satisfied with labor (Dhillon et al., 2017). Mindfulness training is one of the stress-reducing and psychotherapy-based treatments in which the mental representation of the existing objects in life are out of the immediate control of the. In this approach, breathing and thinking are trained for people. This approach is, in fact, a combination of relaxation and mindfulness (Madani and Hojati, 2015).

Madani et al. (2015) conducted a study to examine the effect of mindfulness-based cognitive therapy on marital satisfaction and quality of life of couples on 28 couples referred to Urmia Psychological and Counseling Clinic. The results of this research revealed that the test group after the intervention reported more satisfaction with their marital satisfaction (0.93) and quality of life (0.66), while no change was observed in the control group (Madani and Hojati, 2015). In a study conducted by Rajabi and Sotudeh in 2011 to evaluate the effect of mindfulness-based group cognitive therapy on depression and marital satisfaction of married women referred to counseling centers in Ahvaz, the results showed that this type of treatment could reduce depression and maintain the effectiveness of treatment over time (Rajabi and Navvardi Sotoudeh, 2010). Dilhon et al. (2017) performed a review study to examine mindfulness interventions during pregnancy. Results of six non-RCT (non-randomized controlled trials) reports showed significant results in favor of the mindfulness group ($P < 0.01$) (Dilhon et al., 2017). Muthukrishnan et al. (2016) evaluated the effect of mindfulness on perceived stress and automatic performance tests (sympathetic and parasympathetic) on seventy and four 12-week pregnant women. Their results revealed a significant reduction in perceived stress scores, a significant reduction in blood pressure, an increase in cardiac changes in the test group ($P > 0.5$) (Muthukrishnan et al., 2016). Guardinoo (2014) conducted a research in the United States on the effect of training of mindfulness in reducing pregnancy stress on 47 pregnant women with symptoms of pregnancy anxiety. The results showed that the intervention could decrease pregnancy anxiety scores in the test group ($p < 0.05$) at times zero and 1, compared to control group, and could reduce pregnancy-related anxiety scores ($p < 0.05$) (Guardino et al., 2014). Due to harmful and irreversible effects of stress and ongoing concerns on maternal and fetal health and the limitations of using pharmacological methods, applying appropriate stress reduction programs during this period is crucial. Accordingly, given the importance of this issue and the limited studies in this field, the present study was conducted to evaluate the effect of mindfulness-based group counseling on the marital concern and marital satisfaction.

Methodology

This study is a randomized clinical trial with one control group conducted at three stages (pretest, first posttest, second posttest). The study population included all pregnant women referring to Rahmatabad, Farabi and Azadshahr health centers. The sample size included 30 persons. Inclusion criteria were:

1. Nulliparous women,
2. 20-30-week gestational age,
3. Ability to speak and understand Persian language,
4. Low-risk pregnancy,
5. Singleton,
6. Having physical and mental health,
7. Ability to read and write, and
8. Spouse presence during pregnancy

The exclusion criteria were:

1. Having complications during pregnancy,
2. Having a history of serious psychiatric disorders and having anxiety and depression,
3. Having a history of infertility,
4. Using assisted reproductive methods,
5. Using psychiatric drugs,
6. Addiction and taking psychotropic drugs before or during pregnancy,
7. Spouse dependency on drugs and taking psychotropic drugs (based on the person's statements), and
8. Lack of abnormal stresses caused by adverse events of life over the last 1 month, such as spouse death, divorce, separation from spouse, imprisonment, death of one of the close family members.

After obtaining the Code of Ethics of IRCT2017080935598N1 from the Ethics Committee and registering the project to the clinical trial site and obtaining the required letter of introduction, the researcher referred to Rahmatabad Health Center and Farabi Health Base (Test Group) and Musa Ibn Jafar (Control Group), and got the phone number of 20-30-week pregnant women using the SIB software. The researcher talked with them by phone on their consent to participate in the study and general design specifications. During the phone conversation, to select the appropriate sample, questions were asked about pregnancy and those who were eligible and willing to participate in the project were invited to complete the questionnaire and become familiar with the general specifications and objective of the design. This session was held in the mentioned health centers. In the same session, individuals were first examined in terms of inclusion criteria. Then, by obtaining complete information on the implementation process and conditions of participation in this study and the right of freely participation or non-participating in the study, the consent form was provided for them. Convenient sampling was performed until the adequate number of samples needed to start the first consultation session. It took two months. Then, the samples participated in eight 2-hour sessions of mindfulness-based cognitive therapy classes conducted by the researcher weekly at the Farabi Center in the morning. In the first session, before the discussion, two questionnaires of marital satisfaction and pregnancy concern were completed by the intervention group. In the control group, subjects simultaneously referred to Musa Ibn Jafar Medical Center and completed the questionnaires. At the end of the eighth session, the questionnaires were re-provided to both groups (Table 1). The follow-up period was one month. During the follow-up period, no intervention was provided for the two groups. At the end of the period, the questionnaires were re-completed in person, and for some of the subjects in the intervention group, they were completed through telegram messenger due to some reasons. During the implementation and follow-up of the project, no counseling or training intervention was provided for the control group.

The demographic questionnaire included questions such as questionnaire code, age, level of education, job, marital status, education of spouse, age of spouse, participation in preparatory classes for delivery, gestational age. It was completed by individuals at during first session. The Enrich Marital Satisfaction Questionnaire includes 35 questions designed by Olson to measure the level of marital satisfaction. The

questionnaire has 4 subscales of ideal distortions, marital satisfaction, conflict resolution, and communication (Fowers and Olson, 1989). In the study conducted by Asudeh (2010), the alpha coefficient of the questionnaire for the subscales of marital satisfaction, communication, conflict resolution, and idealistic distortions was obtained 0.68, 0.78, 0.62 and 0.77, respectively (Asoudeh, 2010).
The Pregnancy Concern Questionnaire consists of 12 questions, developed by Aldersey and Lynn in 2011, which is used to measure specific pregnancy concerns and has three subscales of Concerns about Birth and Infant, Concerns about Weight and Body Image and concern about emotions and relationships. The response to this questionnaire is based on the Likert scale (Yousefi, 2013). Rahimi (2015) assessed the total reliability of this questionnaire 0.78. He also obtained the reliability of concern about birth and neonate, concern about weight and body image, concern about emotions and relations 078, 0.72, 0.65, 0.66, respectively (Yousefi, 2013).

Table 1: General content of mindfulness sessions

Session	Content of session
1	Raisin eating exercise, providing feedback and discussion on eating exercise, physical examining exercise, providing feedback and discussing of physical examination, completing a short breathing focused class, 2 to 3 minutes of breathing, homework assignment, stating natural, physical and mental changes during pregnancy and stating the relationship between stress and changes and complications of pregnancy
2	Physical examination exercise, exercise review, homework review, recording pleasant events, sitting meditation for 10 to 15 minutes, homework assignment, urinary genital changes
3	Exercise of seeing or hearing for 5 minutes, sitting meditation for 30-40 minutes, exercise review, homework review, 3-minute breathing space exercise and its review, preparing a list of unpleasant events, homework assignment, stating musculoskeletal changes, correction of pregnancy status
4	5-minute seeing or hearing exercise, 40-minute sitting meditation of awareness of breathing, body, voice, homework review, 3-minute breathing space and review, homework assignment, stating emotional, mental, fear and depression changes in pregnancy and the ways to cope with it
5	40-minute sitting meditation of awareness of breathing, body, voice, and thoughts, paying attention to reactions to thoughts, physical feelings, stating difficulties during exercise, its effects on body and reaction to them, exercise review, homework review, review and coping 3-minute breathing space, consulting on gastrointestinal changes and strategy to reduce these changes
6	40-minute sitting meditation of awareness of breathing, body, voice, thoughts (in addition to reactions given to problems), exercise review, homework review, explaining the delivery process
7	40-minute sitting meditation of awareness of breathing, body, voice, thoughts (in addition to reactions given to problems), exercise review, post-partum care, and neonatal care
8	Use of what have been learned

Data were analyzed by SPSS16 software.

Results

Individual characteristics of research subjects in the intervention and control groups are presented in Table 1. As shown in Table 2, the significance level of the chi-square test and independent t-test was greater than 0.05 in all cases (P> 0.05). Therefore, it can be concluded that the frequency distribution of the two groups of intervention and control did not differ significantly.

Table 2: Frequency distribution of demographic characteristics

		Test group		Control group		
Variable	Variable levels	f	%	f	%	p-value*
Economic status	Good	2	3.13%	3	20%	459.0
	Moderate	13	86.7%	12	80%	

Age	18-22 year	5	36%	6	43%	966.0
	23-27 year	8	57%	5	36%	
	28-32 year	2	14%	4	29%	
Spouse age	23-27 year	7	39%	5	28%	821.0
	28-32 year	5	28%	9	50%	
	33-38 year	3	17%	1	6%	
Job	Employed	1	7.6%	3	20%	229.0
	Housewives	14	3.93%	12	80%	
Spouse job	Employed	15	100%	15	100%	99.0
Participation in a delivery preparation class	Yes	3	20%	5	3.33%	341.0
	No	12	80%	10	7.66%	
Gestational age (week)	21-23	6	40%	5	33%	176.0
	24-26	4	27%	6	40%	
	27-29	5	33%	4	27%	
Wanted pregnancy	Yes	15	100%	14	3.93%	5.0
	No	0	0	1	7.6%	
	Diploma	6	40%	0	0	
	Academic	9	60%	15	100%	
Spouse education	Under diploma	5	3.33%	1	7.6%	104.0
	Diploma	9	60%	10	7.66%	
	Academic	1	7.6%	4	7.26%	

Based on Table 3, the distribution of data on marital satisfaction and pregnancy concern scores were examined at different stages of the research using the Shapiro-Wilks test. As the findings in Table 3 show, the significance level of the Shapiro-Wilks test for research variables is greater than 0.05. In other words, the data have a normal distribution (P> 0.05).

Table 3: Normality status of data using the Shapiro-Wilks test

Variable	Time	Shapiro-Wilks test	Significance level
Marital Satisfaction	Pretest	941.0	1.0
	posttest	985.0	943.0
	Follow up	963.0	359.0
Communication	Pretest	976.0	714.0
	Posttest	963.0	372.0
	Follow up	978.0	767.0
Conflict resolution	Pretest	946.0	132.0
	Posttest	951.0	185.0
	Follow up	97.0	527.0
Idealistic Distortion	Pretest	938.0	08.0
	Posttest	976.0	701.0
	Follow up	975.0	696.0
Total marital satisfaction	Pretest	978.0	766.0
	posttest	96.0	301.0

	Follow up	954.0	217.0
Pregnancy concern	Pretest	951.0	174.0
	posttest	976.0	72.0
	Follow up	961.0	33.0

Table 4 shows the calculation of descriptive indices of the research variables based on the mean and standard deviation of the variables in general. As the findings of the descriptive indices in Table 4 show in the test group, the mean of marital satisfaction components increased in the post-test and follow-up, and the mean concern in the post-test and follow-up decreased. In the control group, the mean components of marital satisfaction and concern in the pre-test, post-test, and follow-up were not significantly different.

Table 4: Descriptive indices of research variables (test and control group)

Variable	state	test group		Control group	
		mean	SD	mean	SD
Total satisfaction	Pretest	47.105	19.16	93.105	76.16
	Posttest	93.126	58.14	33.107	77.14
	Follow up	93.133	85.15	57.107	49.11
Concern	Pretest	28.35	67.8	27.35	2.5
	Posttest	24.26	49.7	52.33	69.6
	Follow up	24.88	51.6	12.35	87.5

Table 5 shows the results of the four multivariate tests on the significance of intra-subject levels of the independent variable (difference in three times of implementation of marital satisfaction test on the test group). As shown in the table, the significant levels in all four tests were less than 0.05 and significant. It means that the difference between the marital satisfaction scores in the test group in the pre-test, post-test, and follow-up stages was significant (significance level was 0.001). The results also show that F statistic (11.81) of the four tests of Pillai's trace, Wilks' Lambda, Hotelling's Trace, and Roy's largest root were significant (significance level is 0.001). So at 95% confidence level, the mean score of pregnancy concern in three pre-test (m=2.94, sd=0.72), post-test (m=2.18, sd=0.62) and follow-up (m=2.07, sd=0.54) stages was significantly different.

Table 5: Results of four multivariate tests between measurement modes (marital Satisfaction and pregnancy concern)

Variable	Test	Value	F	Significance level	Result
Marital satisfaction	Pillai's trace	886.0	47.50	001.0	Significant
	Wilks' Lambda	114.0	47.50	001.0	Significant
	Hotelling's Trace	766.7	47.50	001.0	Significant
	Roy's largest root	766.7	47.50	001.0	Significant
Pregnancy concern	Pillai's trace	645.0	81.11	001.0	Significant
	Wilks' Lambda	355.0	81.11	001.0	Significant
	Hotelling's Trace	81.1	81.11	001.0	Significant
	Roy's largest root	81.1	81.11	001.0	Significant

The results of the post hoc test in Table 6 show a significant difference between the mean pre-test and mean post-test and between mean pre-test and mean follow-up. The significance level of T-test is less than 0.05, so there is a significant difference between the two measurement modes at 95% confidence level. It means

that group counseling with mindfulness-based cognitive therapy approach has increased the marital satisfaction of pregnant women and reduced pregnancy concern, as test group marital satisfaction scores at post-test and follow-up were significantly higher than pre-test scores and lower in pregnancy concern. Other results suggest no significant difference between mean post-test and marital satisfaction and pregnancy concern (p = 0.08 and p = 0.5, respectively).

Table 6: post hoc test between measurement modes (total marital satisfaction and pregnancy concern)

Variable	Test (I)* (II)*		Mean difference (I-II)	SD	Significance level	95% confidence level for the mean difference	
						Lower bound	Upper bound
Total marital satisfaction	pretest	Post	0.613-*	0.060	0.000	0.777-	0.450-
		Follow up	0.813-*	0.121	0.000	1.141-	0.485-
	Posttest	pre	0.613*	0.060	0.000	0.450	0.777
		Follow up	0.200-	0.082	0.087	0.423-	0.023
	Follow up	pre	0.813*	0.121	0.000	0.485	1.141
		post	0.200	0.082	0.087	0.023-	0.423
Pregnancy concern	Pretest	Post	0.753*	0.176	0.002	0.276	1.231
		Follow up	0.867*	0.173	0.001	0.398	1.336
	Posttest	pre	0.753-*	0.176	0.002	1.231-	0.276-
		Follow up	0.113	0.080	0.532	0.104-	0.330
	Follow up	pre	0.867-*	0.173	0.001	1.336-	0.398-
		post	0.113-	0.080	0.532	0.330-	0.104

*Significance at 95% confidence level

**Test (I): First time of comparison of two intervals of intervention implementation

***Test (II): Second time of comparison of two intervals of intervention implementation

As seen in Table 7, there was no significant difference between the two groups in the mean marital satisfaction and pregnancy concern scores at pretest stages, but there was a significant difference between the two groups at the time of intervention and follow-up (0.001). There was also a significant difference between the two groups after the intervention (P = 0.009). Mean scores of marital satisfaction and pregnancy concern were significantly different between the control and test groups at the follow-up stage (P =0.001). In both post-test and follow-up stages, marital satisfaction was higher in the test group than that in the control group and pregnancy concern in the test group was more than that in the control group.

Table 7: Comparison of mean scores of marital satisfaction and pregnancy concern in the two groups before, immediately after and one month after the intervention

	Test	Group	Mean	SD	Mean difference	t	df	P-avalue
Marital satisfaction	Pretest	Intervention	47.105	19.16	078.0-	000.0	28	939.0
		Control	93.105	16.76				
	Posttest	Intervention	93.126	58.14	67.3	807.2-	28	�ທ01.0
		Control	107.33	14.77				
	Follow up	Intervention	93.133	85.15	22.5	522.4-	28	�ທ01.0
		Control	57.107	49.11				

	test	group	mean	SD	Mean difference	t	df	P- value
Pregnancy concern	pretest	Intervention	28.35	67.8	000.0	000.0	28	000.1
		Control	27.35	2.5				
	posttest	Intervention	24.26	49.7	28.7-	807.2-	28	٠09.0
		Control	52.33	69.6				
	Follow up	Intervention	88.24	51.6	24.10-	522.4-	7.27	٠01.0
		Control	12.35	87.5				

Discussion and Conclusion

The results of the present study show the effectiveness of counseling with mindfulness-based cognitive therapy approach on increasing marital satisfaction and reducing pregnancy anxiety. The results revealed that the highest frequency of age was 18-22 years in the intervention group and 23-27 years in the control group. Sixty percent of samples in the test group and 100% of samples in the control group had an academic level of education. Mean and standard deviation of marital satisfaction were 46.01 and 0.3 respectively, in the intervention group, 3.03, and 0.48, respectively, in the control group. The mean and standard deviation of pregnancy concern in the intervention group was 2.94 and 0.72, respectively, and in the control group at the beginning of the intervention it was 2.94, and 0.42, respectively. Frequency distribution of demographic variables in the two study groups was not statistically significant. Results of this study revealed that the mean score of marital satisfaction in the test group had an increasing trend at intervention and post-intervention times, which this mean difference was significant ($p = 0.002$). A slight increase was seen in mean value since after intervention to the follow-up, which was significant ($p = 0.087$) and the difference in mean scores at the follow-up was significant ($p = 0.00$).

These results suggest the difference between the mean scores of marital satisfaction at the times before, immediately after the intervention and one month after the intervention in the test group and confirm the effect of counseling with mindfulness-based cognitive therapy on marital satisfaction of the women in this study. The present study results are in line with the results of the study conducted by Madani et al. (2015) about the effect of mindfulness-based cognitive therapy on marital satisfaction and quality of life of couples in improving marital satisfaction of pregnant women. In addition, there were differences between the two studies, which can be attributed to the differences in the statistical population, the duration of follow-up and the research tool. In the study conducted by Madani, 28 couples referred to the psychology clinic and had no follow-up time and data were collected through a quality of life questionnaire. Mindfulness-based interventions train participants to have a more empathetic and non-judgmental approach to their spouse. In another study conducted by Farahani et al. (2014), the effectiveness of mindfulness-based delivery training and parenting on pregnancy concern and marital satisfaction in pregnant women was examined. The research results revealed that the intervention reduced pregnancy anxiety ($p<0.001$) and increased marital satisfaction ($p <0.001$). The results of the mentioned study were consistent with those of the present study on the effect of mindfulness-based training on marital satisfaction of pregnant women, but in their study, the population included 10 pregnant women who had a higher score of anxiety based on pregnancy anxiety questionnaire. In the mentioned study, women participated in 9 training sessions and had no follow-up time.

The results also showed that there was a significant difference between the two groups in the post-intervention stage, and the mean difference between the two groups remained significant in the follow-up stage. The results of this study are consistent with the results of the study conducted by Rajabi et al. (2010) regarding the effect of mindfulness-based group cognitive therapy on reducing the depression and marital satisfaction in married women ($p=0.0001$). The results of the study showed increased marital satisfaction in the test group compared to the control (post-test), but there was no difference between post-intervention and follow-up stages in terms of marital satisfaction in the test group. The research population included 28

married women with depression and unsatisfied marital life and data collection tool included Marital Satisfaction and Depression Scale, which was different from the toll of the present study, in which subjects participated in 7 training sessions and the duration of follow-up was 7 one month after the intervention. The study conducted by Jahanian and Sephri (2017) on the effect of mindfulness on marital satisfaction with mediating role of emotional intelligence showed that mindfulness with mediating role of emotional intelligence had a significant effect on marital satisfaction in women ($p < 0.05$). Although the mentioned study was consistent with the present study in general results of increasing marital satisfaction, it has some differences with our study, such as the method of study which was correlational and the statistical population and sample size (195 married women) and research tools. Mindful individuals experience higher skill, higher adaptability, positive attitude toward spouse, and effective communication when faced with environmental stress (Omidbighi et al., 2013).
The current research results revealed that the mean score of concern in the test group was significantly different and decreased after the intervention ($P=0.001$) and there was a decreasing trend in the follow-up stage after the intervention and the mean difference was significant ($P=0.001$). In the research carried out by Sharifi et al. (2015), the results showed that mindfulness training reduced anxiety and concern of women with frequent abortion ($p<0.001$) in the test group, as this method, not only improved the mental and psychological well-being of infertile women with frequent abortion but also increases the likelihood of fertility and giving birth to them. The mentioned study differs from our study in terms of sample size and population, which included 40 women with frequent abortion and the research tool, was Cattell Anxiety Questionnaire and lack of follow-up period, which was one of the limitations of the study. Mindfulness helps people identify the situations that cause anxiety and stress, gain a better understanding of themselves, identify their strengths and weaknesses and learn the strategies to cope with these situations. The results of evaluating and comparing concern scores immediately after the intervention and one month after the intervention in the test and control groups showed that the mean scores of the two groups in the pre-intervention stage were significantly different from each other and this difference was significant ($p=0.001$), but there was no significant difference between the two groups in post-intervention and follow up stages ($p = 0.00$).
Aslami et al. (2016) conducted a research to evaluate the effectiveness of mindfulness training based on Islamic-spiritual schema on maternal pregnancy anxiety and neonatal physical health. Their research results revealed that mindfulness training based on Islamic-spiritual schema reduces pregnancy anxiety indices (concern about interpersonal and emotional relationships, concern about changes in appearance and concern about birth of neonates) and increases the scores of neonatal physiological indices (such as weight, head circumference, and the first minute Apgar) ($p<.01$). Therefore, a mindfulness course that combines mindfulness training and coping skills with information on pregnancy, delivery, and parental concerns can improve maternal health.

The mentioned study was similar to the present study in sample size ($n=30$) and intervention method (8 sessions of mindfulness training), but it was different in data collection tools (pregnancy anxiety questionnaire and neonatal physical health parameters) and lack of follow up period. The results of the research conducted by Duncan and Bardack, which evaluated the effect of mindfulness-based delivery and parenting training in the family during the perinatal period, are consistent with the results of the present study. The results of the research indicated that the intervention had a significant effect on reducing pregnancy anxiety (p. 0001%), increasing the presence of the mind ($p < 0.0001$), reducing depression ($p=0.16$), and perceived stress ($p=0.62$). In the research conducted by Madson et al. (2016), the effect of cognitive-behavioral therapy of mindfulness on reducing pregnancy distress was investigated. The intervention included 8 weekly sessions of cognitive-behavioral therapy for the intervention group.
The results of the research revealed that cognitive-behavioral therapy reduced depression, general anxiety, pregnancy anxiety, and perceived stress, decreased blood pressure and improved heart rate and sleep quality compared to the control group. They concluded that cognitive-behavioral therapy in women is a good treatment option to reduce pregnancy distress. The results of the research conducted by Madson were consistent with those of the present study. Despite the consistency in general finding (reduction in

pregnancy distress following behavioral interventions), they were differences, attributed to sample size, data collection tools, longer follow-up period than the present study (three months after delivery), examining the secondary symptoms of stress (cortisol, blood pressure, and heart rate variations). The results of the research conducted by Bargali et al. (2017) to explain the strategies of pregnant mothers in the management of anxieties during pregnancy are consistent with the results of the present study. The results of this research revealed that pregnant women used the 5 strategies of purposeful search of authentic knowledge, relying on the leverage of spirituality, management thinking and inhibiting the stress and trying to maintain and improve family interactions and acquiring mental preparedness for pregnancy to cope with the concerns of pregnancy. The results of the study conducted by Barjesteh et al. (2015) to evaluate the relationship between concern and anxiety during pregnancy and spouse support and social support revealed that marital satisfaction is the strongest variable to predict anxiety and concern during pregnancy, so that with increasing marital satisfaction, the anxiety and concern during pregnancy decrease. This relationship suggests the high effect of spouse in reducing or exacerbating pregnancy anxiety and concern ($p < 0.003$).
Therefore, the research results suggest a significant effect of mindfulness approaches on reducing anxiety and increasing marital satisfaction. According to the results of the present study, the mean score of marital satisfaction was different in the test group before, immediately and one month after the intervention, the difference of mean score of pregnancy concern in the test group before, immediately and one month after the intervention, the difference in mean pregnancy concern scores in the test and control groups immediately after and one month after the intervention and the mean scores of marital satisfaction in the two test and control groups immediately after and one month after the intervention are accepted. Given the effectiveness of this type of training and considering the benefits of this method in increasing marital satisfaction and reducing pregnancy concerns, its widespread use as a non-pharmacological method to reduce anxiety and stress during pregnancy is recommended for people. The results of this study suggest that more attention should be paid to the physical and mental health of women during pregnancy so that they can have a healthy pregnancy period.

References

1. Aghayousfi, A., Moradi, K., Safari, N., Ghazi, Sh., & Amiri, F. (2011). The Relationship Between Marital Satisfaction with Physical Problems of Pregnancy and Its Related Factors in Pregnant Women, *Yafteh Journal, 13* (1), 123-131.
2. Asoudeh M. H., (2010). *Factors Affecting Marriage Success from the View of Happy Couples*. Thesis.
3. Borghei, N. S., Taghipour, A., & Latifnejad Roudsari, R. (2017). Pregnant mothers' strategies for the management of pregnancy concerns. *Journal of hayat*, *23*(2), 106-125.
4. Dhillon, A., Sparkes, E., & Duarte, R. V. (2017). Mindfulness-based interventions during pregnancy: A systematic review and meta-analysis. *Mindfulness*, *8*(6), 1421-1437.
5. Duncan, LG, & Bardacke, N. (2010). Mindfulness-based childbirth and parenting education: promoting family mindfulness during the perinatal period. *Journal of Child and Family Studies. 19*(2), 190-202
6. Eslami, E., AliPour, A., Aghaieusefi, A., & Najib, F. (2016). Assessing the effectiveness of mindfulness-based Islamic–spiritual schemas on anxiety of mothers pregnancy and infants physiological health. *Health Psychology.14*(4), 129-140.
7. Fowers, B. J., & Olson, D. H. (1989). ENRICH Marital Inventory: A discriminant validity and cross-validation assessment. *Journal of marital and family therapy*, *15*(1), 65-79.
8. Guardino, C. M., Dunkel Schetter, C., Bower, J. E., Lu, M. C., & Smalley, S. L. (2014). Randomised controlled pilot trial of mindfulness training for stress reduction during pregnancy. *Psychology & health*, *29*(3), 334-349.
9. Jahanian, M., & Sepehry Z. (2017). The Effect of Mindfulness on Marital Satisfaction: By Mediating Emotional Intelligence. *Psychiatric Nursing Journal. 5* (3).
10. Madani, Y., & Hojati, S. (2015). The effect of mindfulness-based cognitive therapy on marital satisfaction and quality of life in couples. *Applied Psychological Research Quarterly*, *6*(2), 39-60.

11. Mahmoudi, Z., Kermil, M., Sajjadi, H., Dazhman, M., Vamati, M., & Dolatyan, M. (2015). Stressful Stress Life and Weight At Birth: Based on the Social determinants affecting health, *Shahid Beheshti Faculty of Nursing, 25* (90), 17-26.
12. Mangali, M., Ramezani, T., & Mangali, S. (2008). The Effect of Natural Pregnancy Education Training and Adjustment on Marital Satisfaction in Pregnant Women. *Journal of Medical Education. 8* (2), 305-313.
13. Muthukrishnan, S., Jain, R., Kohli, S., & Batra, S. (2016). Effect of mindfulness meditation on perceived stress scores and autonomic function tests of pregnant Indian women. *Journal of clinical and diagnostic research: JCDR*, *10*(4), CC05.
14. Omidbighi, M., & Khalili, Sh., Gholamali, M., & Ghorbani, N. (2013). The Relationship between Conscious Mindfulness and Integrated Self-knowledge with Marital Satisfaction. *Psychology Journal. 71*; *18* (3), 327-341.
15. Rajabi, Gh., & Navvardi Sotoudeh O. (2010). The Effect of Group Based Cognitive Therapy (MBCT) on depression and increasing marital satisfaction in married women. *Journal of Guilan University of Medical Sciences; 20* (80), 83-91.
16. Saberandi Farahani, M. (2014). Effect of Mindfulness-Based Childbirth and Parenting Program Education on Pregnancy Anxiety and Marital Satisfaction in Pregnant Women, *Journal of Behavioral Sciences, 8* (4), 375-381.
17. Saki Sharifi, H., Akhteh, M., AliPour, A., & Fahimi, F. (2015). The effectiveness of mindfulness-based cognitive therapy in reducing anxiety and meta-worry in women with recurrent miscarriages. *Feyz Journal of Science. 19* (4), 334-340
18. Tabrizi, F. M., & Barjasteh, S. (2015). Antenatal Anxiety and Pregnancy Worries in Association with Marital and Social Support. *Urmia Nursing Faculty Journal, 14* (6), 504-515.
19. Tomfohr-Madsen, L. M., Campbell, T. S., Giesbrecht, G. F., Letourneau, N. L., Carlson, L. E., Madsen, J. W., & Dimidjian, S. (2016). Mindfulness-based cognitive therapy for psychological distress in pregnancy: study protocol for a randomized controlled trial. *Trials*, *17*(1), 498.
20. Yousefi R., (2013) Psychometric Properties of the Persian Version of the Pregnancy Concerns Questionnaire. *Journal of Orumie Faculty of Nursing and Midwifery; 13* (3), 215-225.