

Original Paper

Effect of Midwife-led Counseling on the Quality of Life of Women With Body Image Concerns During Postpartum



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ABSTRACT

Introduction: During pregnancy and postpartum, women bet more concerned and dissatisfied with their bodies. Primiparous women face more physical and mental health problems in the postpartum period.

Objective: This study aimed to investigate the effect of a midwife-based counseling program on the quality of life in women with body image concerns during postpartum.

Materials and Methods: This randomized controlled trial was conducted on 64 primiparous women with body image concerns who had been referred to the health centers in Alborz Province, Iran, in January 2019. The convenience sampling method was used for recruiting the study participants. Then, the samples were assigned to the intervention and control groups by random number table allocation. Next, the intervention group received a three-session counseling program. The data gathering questionnaire in this study included a Multi-Dimensional Body Self-Relation Questionnaire (MBSRQ) and a 36-item short-form quality of life questionnaire. Questionnaires were completed before, immediately after, and one month after the intervention. The obtained data were analyzed using descriptive statistics, the Chi-square test, Fisher exact test, and repeated measures test.

Results: The Mean±SD age of the study participants was 26.4±5.4 years. Also, 94%of the samples had wanted pregnancy, 54% had a vaginal delivery, and 59.4% were overweight. There was no statistically significant difference between the control and intervention groups before the intervention regarding their demographic characteristics. The results of the Analysis of Variance (ANOVA) with repeated measures test indicated that the length of time affected the total scores of multi-dimensional body self-relation (P=0.001). Also, the repeated measures ANOVA results showed that time significantly impacted the quality of life score (P=0.001).

Conclusion: The study results showed that a midwife-led counseling program could affect the score of quality of life in women with body image concerns in postpartum.

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Highlights

- Primiparous women face more physical and mental health problems in the postpartum period.
- Concerns about body image during postpartum can affect the quality of women's life.
- The postpartum period is a critical phase in the lives of mothers and newborn babies
- One of the needs of mothers during this period is to improve their quality of life through proper education.
- We designed a midwife-led counseling program for educating primiparous mothers about body image concerns.
- After implantation of the midwife-led counseling program, their body image concerns got relieved, and the total score of quality of life increased.
- It is recommended to consider women's postpartum body image concerns and mothers who require the necessary educations.

Plain Language Summary

Body image is one of the psychological factors. Positive and negative body images can affect the quality of women's psychosocial life. This study aimed to determine the effect of midwife-led counseling on the quality of life of mothers with body image concerns in the postpartum period. Concern about weight gain during the postpartum period is associated with feelings of despair, low self-esteem, depressive symptoms, and eating disorders. Positive and negative body images can affect the quality of a mother's life. Body image concerns may affect mother-infant attachment and maternal role adoption. Midwife-led counseling is brief and does not require advanced psychotherapy that a midwife can provide it. This study showed the effect of midwife-led counseling programs on body image and total score of quality of life. The results of this study showed the necessity of recognition of mothers with body image concerns during the postpartum period and also emphasized the need to provide counseling to mothers with body image concerns.

Introduction

During pregnancy and postpartum, women's dissatisfaction with their bodies can increase. Primiparous women face more physical and mental health problems in the postpartum period [1]. Changes associated with the postpartum period can reduce women's quality of life [2]. The results of a study showed that pregnant women are more concerned about undesirable changes that can happen to their body during the postpartum period, including an expanding belly, dark patches or brown spots on the skin, and darkening of the skin. Studies reveal that a negative body image during pregnancy is not limited to pregnancy. Negative body image will expose women to the risk of obesity, low self-esteem, and depression [3, 4]. Results of a systematic review study showed that pregnant women in the third trimester have significantly lower levels of physical functioning (62.91%), social functioning (74%), and vitality (47.24%) [5]. Reduction in social

functioning continues in the postpartum period [6]. Accepting body changes in the postpartum period is necessary and causing lots of stress for the mother and family. In the postpartum period, mothers face new roles and responsibilities and multiple physical and mental disorders [7, 8]. Body image is one of the psychological factors. It is concept-centered for health psychologists. Body image can be defined as one's thoughts, perceptions, and attitudes about own size, body shape, weight, and appearance, which can affect behavior [7]. The ideal body image is described as a phenomenon based on social construction. In this case, physical features are combined with psychological judgments [9]. The difference between women's body image and ideal social construction can cause body dissatisfaction [10], resulting in psychological distress [11].

Concerns about weight gain during the postpartum period are associated with feelings of despair, low self-esteem, depressive symptoms, and eating disorders

[12]. Positive and negative body images can affect the quality of women's psychosocial life [9].

Since the postpartum period is a critical phase in the lives of mothers and newborn babies, one of the needs of mothers during this period is to improve the quality of care and education needed for them [10]. In Iran, antenatal care in the public health center is primarily provided by midwives. If risk factors arise or complications occur, the midwife refers the woman to obstetrician-led care, and since the midwives as service providers are associated with women throughout their lives, correct and sustained training and counseling can result in mothers' higher awareness and lower anxiety. Therefore, this study aimed to investigate the effect of a midwife-led counseling program on the quality of life in women with body image concerns.

Materials and Methods

This parallel randomized controlled trial was conducted on primiparous women with body image concerns referred to the health centers in Alborz Province, Iran, in January 2019.

The inclusion criteria included having Iranian nationality, having a body image concern score less than 138 based on the relevant questionnaire, having passed 6-12 months after delivery (in this period, physiologic pregnancy changes were returned, and mother transition process was shaped), having the ability to read and write, not smoking or having drugs history, having exclusive breastfeeding of infant, being primiparous, having wanted pregnancy, having a neonate without anomaly, having singleton pregnancy, lacking maternal complications such as gestational diabetes, preeclampsia during pregnancy, lacking a burn scar on the body, and not having body mass index more than 29 (obese level).

The exclusion criteria were not participating in more than one session of weekly counseling, having a hormonal imbalance, taking the medication, and having medical and mental disorders according to the recorded file in health centers.

The independent samples test for a quantitative variable was used to calculate the sample size of this study. Thus, based on Navidian et al. study [13] that Mean \pm SD scores on the whole-body image were 166.16 \pm 20.81 in the intervention group and 59.20 \pm 22.39 in the control group, to calculate the sample as 29 per groups with a 95% confidence level, 80% power, and Mean \pm SD differences of 0.17.

The sample size with 20% sample dropout was considered 40 people in each group. Finally, 80 mothers completed Multi Dimensional Body Self-relation Questionnaire (MBSRQ) scales, and 16 mothers were excluded from the study because of their losing follow-up (Figure 1). The samples were selected from two healthcare centers with the largest number of referrals in the central area of Alborz Province. People who referred to these centers had the average socioeconomic status. The sampling method was convenience sampling method, and study participants were randomly assigned to two groups.

The content of midwife-led sessions was designed based on Navidian et al. study [13], literature review, guideline, and interventions. For face and content validity, the framework of intervention was given to 4 faculty members of the Department of Midwifery, Psychiatry and Psychology, and Nutrition of Alborz University of Medical Sciences who had experiences of working with mothers in the postpartum period. After the agreement of the expert panel, all suggestions were applied, and the content of the intervention was designed, as shown in Table 1.

In this study, the data collection tool consisted of three parts: (i) demographic characteristics, (ii) the multi-dimensional body self-relation questionnaire (MBSRQ), and (iii) the 36-item short-form quality of life questionnaire (SF-36). The 69-item MBSRQ with six subscales is used to assess attitudes towards body image. MBSRQ is a self-assessment scale designed by Cash and Mikulka [14]. Its subscales include appearance evaluation, appearance orientation, fitness evaluation, fitness orientation, subjective weight, and body areas' satisfaction. Its scoring is based on a 5-point Likert-type scale from 1 to 5. The total score was obtained by summing subscale scores and is ranged between 46 and 230. Mothers with scores lower than 138 had body image concerns, and higher scores on the questionnaire show a lower level of body image concerns. The validity of the main parts of the MBSRQ was tested and confirmed by Cash [14].

In the present study, the validity of the MBSRQ was confirmed by 10 experts in Reproductive Health, Midwifery, and Psychology fields. The results indicated that 19 out of 69 items scored lower than the numeric value determined by the Lawshe table. Ten items for Content Validity Ratio (CVR) and 9 items for Content Validity Index (CVI) were removed. Some items remained according to the opinions of the research team. In this research, the Cronbach alpha values of 0.84, 0.72, 0.76, 0.71, 0.79, 0.78, and 0.81 were obtained respectively for the total body image and subscales of appearance evaluation, appearance orientation, fitness evaluation,

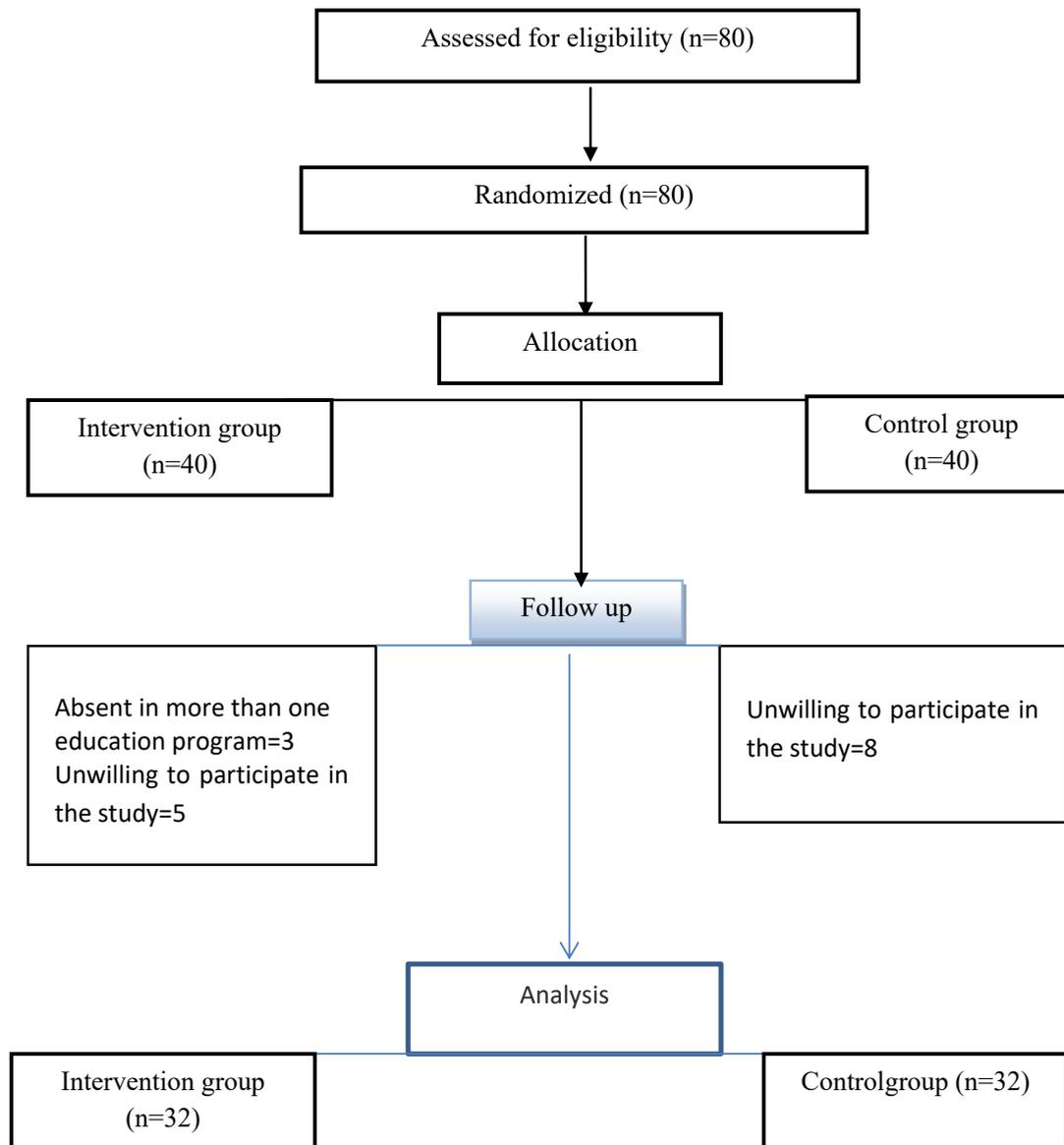


Figure 1. Participants flow diagram (consort charts)

fitness orientation, subjective weight, and body areas' satisfaction. In this study, the total score of MBSRQ was considered for screening mothers with body image concerns, and we did not calculate each subscales scores.

The SF-36 quality of life survey has 8 components: physical functioning, role-physical, physical pain, general health, vitality, social functioning, role-emotional, and mental health. The items are answered on a Likert scale from 0 to 5. Each participant receives a score from 0 to 100. The Persian version of the SF-36 questionnaire was validated by Montazeri et al. The Cronbach alpha coefficients of SF-36 ranged from 0.77 to 0.90 [15].

After explaining the study objectives and obtaining written and verbal informed consent, the researcher started to carry out the convenience sampling from mothers referred to health care centers for receiving family planning, infant vaccination, and control of growth and development of infants. Then, the study participants were randomly assigned to the intervention group by selecting numbers from a random number table. The researcher was a graduate student in midwifery counseling. She had also received training about the content of the research sessions. The intervention group received the midwife-led counseling program during three 60-90 min sessions once a week. The researcher followed mothers by telephone until one month after the intervention for

Table 1. Content of midwife-led sessions

Sessions	Goals	Content
First	Introducing and defining body image	Introducing, welcoming participants and communicating with them, expressing the goals of the education program, familiarizing the participants with the principles and rules of the sessions, the benefits of attending counseling sessions, defining body image and concepts related to it, agreeing and explaining the participatory process of sessions, treatment process, body dissatisfaction problems and quality of life, group discussions about the quality of life and body image, and completing homework assignments
Second	Perceived sense of participants about body image and training about the recommendations for weight control	Identifying negative body image roots, training participants to write about their body image daily (thought record sheet), training appropriate physical activity (postpartum exercise), training how to enjoy following fitness, appearance improvement and emotion enhancement, strong recommendations based on common problems in this period, including diet and medicine supplements, breastfeeding, infant care, family planning, and exercise
Third	Reviewing educated recommendation and peer experiences	Reviewing what happened in the previous sessions, remembering and practicing the techniques taught, inviting postpartum women who were overweight or obese and maintained fitness to share their experiences with other people, answering the questions posed, summarizing, concluding, and getting feedback from participants, reception and expressing thanks to the participants

the completion of the questionnaire. The control group received only routine care, and to follow research ethics, they also received an educational booklet (including all the contents of the three sessions for the intervention group) that was designed by the researcher based on the content of educational sessions. Questionnaires were completed before, immediately after, and one month after the intervention by mothers.

The obtained data were analyzed in SPSS v. 16. The normality of the data was also investigated via skewness and kurtosis. The t-test was correspondingly employed to compare baseline quantitative variables between the two study groups. Comparison of qualitative variables was also performed using the Chi-square test and Fisher exact test. To compare the mean scores of multi-dimensional body self-relation and quality of life between study groups before, immediately after, and one month after the intervention, a repeated measures test was used. P-values less than 0.05 were considered significant. It should be noted that data analysis was carried out based on pre-protocol analysis.

Results

The Mean±SD age of the study participants was 26.4±5.4 years, and there was no significant difference between the two study groups' age by independent t test. About 94% had wanted pregnancy, 54% had a vaginal delivery, and 59.4% were overweight. Table 2 presents the demographic characteristics of the contributing subjects in the study. There was no significant difference between the control and intervention groups regarding the demographic characteristics.

A repeated measures test was used to evaluate changes in multi-dimensional body self-relation scores before, immediately after, and one month after the intervention. The results of the repeated measures indicated that the length of time significantly affected total scores of multi-dimensional body self-relation (P=0.001) (Table 3).

The results of the repeated measures test indicated that the length of time affected all domains of quality of life (physical function, physical role, vitality, emotional, mental health (P=0.001), physical role, physical pain (P=0.004)) and total score of quality of life (P=0.001) and there was a significant difference between the two groups in all domains except (physical role, physical pain, emotional) and total score of quality of life (P=0.001) (Table 4).

Discussion

This study showed the effect of midwife-led counseling programs on body image and total score of quality of life and all of its domains except emotional, social, and physical functioning.

The study results demonstrated that the body image in the intervention group had changed over time, and there was a statistically significant difference between the two groups. The majority of studies found that women's body image change in pregnancy and postpartum [16, 17]. Another study showed that the women's body image concerns in the postpartum period and women's body dissatisfaction are at the top at 6 months postpartum [19]. A study determined the effectiveness of cognitive-behavioral group therapy based on Cash's eight-step model in body image of primiparous women, and

Table 2. Demographic characteristics of the studied women

Variables	Characteristics	No. (%)		Sig.
		Group		
		Intervention (n=32)	Control (n=32)	
Education	Under the diploma	7 (22)	9 (29)	0.39**
	Diploma	22 (69)	19 (59)	
	Bachelor's degree	2 (6)	4 (12)	
	Master's degree	1 (3)	0 (0)	
Job	House keeper	26 (81)	26 (81)	0.99**
	Employee	6 (18)	6 (18)	
Income	Good	6 (19)	7 (22)	0.952**
	Moderate	24 (75)	23 (72)	
	Poor	2 (6)	2 (6)	
Type of delivery	Vaginal	15 (46)	26 (81)	0.99**
	Cesarean section	17 (54)	6 (19)	
Newborn gender	Boy	16 (50)	17 (53)	0.063**
	Girl	16 (50)	15 (47)	
Pregnancy intention	Wanted	30 (94)	32 (100)	0.151***
	Unwanted	2 (6)	0 (0)	
Body mass index	>18	1 (3.2)	1 (3.2)	0.873**
	18-24.9	11 (34.3)	13 (40.6)	
	25-29.9	20 (62.5)	18 (56.2)	

** Chi-Square test; *** Fisher exact test.

the obtained results demonstrated that the total mean scores of physical assessment and body image in the intervention group were significantly higher than those in the controls [13]. A study has shown that the positive and negative effects of body image can also affect one's the psychosocial quality of life [1].

The results of the repeated measures showed that physical functioning in the intervention group had changed over time, and there was no statistically significant difference between the two groups. Physical functioning can improve over time due to physical changes during the postpartum period. The results of a study revealed that scores of all the domains of the SF-36 at six months postpartum improved as compared with six weeks after postpartum, which may be due to no significant

difference between the two groups in the physical functioning domain [19].

The results of the repeated measures indicated that general health in the intervention group had changed over time, and there was a statistically significant difference between the two groups. Many studies have reported that dissatisfaction with body image increases the probability of damage to a person's general health [20, 21]. People who are dissatisfied with their bodies have a negative self-assessment of their health status that may affect their quality of life [22].

The results of repeated measures showed that a midwife-led counseling program affected vitality, and the score of this domain in the intervention group had significantly changed over time. The results of a study showed

Table 3. Trend of multi-dimensional body self-relation score before, after the intervention, and one month after the intervention

Factor	Groups	Mean±SD			Muchly	Sig.*	
		Before the intervention	Immediately after the intervention	One month after the intervention		Inter-group	Intra-group
Body self-relation	Intervention	119.5±14.8	133.8±21.9	143.6±27.2	0.001	0.001	0.001
	Control	118.9±14.8	122.2±15.2	126.5±15.8			

*Repeated measures.

a decrease in happiness and joy in the postpartum period [23]. People who are dissatisfied with their body image have lower self-esteem, increased risk for eating disorders and depression [24]. Given the relationship between negative perception and body image, dissat-

isfaction with body image can affect social and mental health and, consequently, quality of life [19].

Results of repeated measures showed that mental health in the intervention group had significantly changed over time. Numerous studies have shown

Table 4. Results of the repeated measurement tests of the quality of life score before, immediately after, and one month after the intervention

Components	Groups	Mean±SD			Muchly	Sig.*	
		Before the Intervention	Immediately after the Intervention	One month After the Intervention		Inter-group	Intra-group
Physical function	Intervention	54.8±17.2	60.3±15.5	60.1±16.9	0.31	0.001	0.38
	Control	55.3±12.9	54.8±11.9	60±14.5			
Physical role	Intervention	58.5±28.5	67.1±24.1	66.4±25.8	0.41	0.004	0.48
	Control	57.3±2.08	61.7±20.6	60.1±22.7			
Physical pain	Intervention	63.3±19.4	57.3±18.2	55.5±15.9	0.001	0.004	0.016
	Control	68±15.5	65.7±13.2	68.1±12.9			
General health	Intervention	73.4±15.6	80.8±10.5	84.1±6.2	0.001	0.001	0.021
	Control	77.6±11.9	82.6±8.02	78.6±8.9			
Vitality	Intervention	54.06±11.9	61.09±11.9	62.3±13.07	0.82	0.001	0.02
	Control	57.9±8.1	59.3±9.3	59.2±2.1			
Emotional	Intervention	54.2±29.1	65.7±28.7	68.8±26.7	0.004	0.001	0.117
	Control	48.9±26.9	48.9±24.1	57.3±21.3			
Mental health	Intervention	56.5±11.3	63.2±9.6	63.5±8.6	0.012	0.001	0.005
	Control	56.8±7.7	56.7±7.8	59.6±7.6			
Social function	Intervention	48.6±20.7	59.9±19.6	60.8±18.7	0.074	0.001	0.005
	Control	49.9±14.7	65.5±13.4	55.7±16.08			
Total score × Repeated measure test	Control	57.8±12.09	65.8±11.4	66.8±10.6	0.028	0.001	0.001
	Intervention	59.06±8.5	60.8±7.8	62.4±8.09			

that body image dissatisfaction can increase the risk for postpartum depression [24, 25]. However, some studies have also shown postpartum depression can lead to body image dissatisfaction [26].

The results of repeated measures indicated that the emotional functioning in the intervention group had changed over time, and there was no statistically significant difference between the two groups. This finding may be due to the process of becoming a mother, which is one of the most enjoyable and significant events in women's lives. Also, having a mother role, including maternal/newborn attachment, mother-infant interaction, and acquiring maternal competence, can affect a mother's quality of life [27].

The results of repeated measures showed that social functioning in the intervention group had changed over time, and no statistically significant difference was observed between the two groups. Several studies have found that the ideal social construction of women's body image is thinness [28]. The changes in their body during pregnancy are acceptable for women and society. Pregnancy-related physical changes due to the maternal and functional identity of women can contradict mothers' perceptions of idealism. However, body changes in postpartum can raise concerns in women due to the social beliefs about women's ideal body image. Social construction is regarded as one of the factors affecting one's social functioning [29].

One of the limitations of this study was overlooking the impact of social construction on women's body image, which may be the reason for the lack of the effect of a midwife-based counseling program on this domain. Therefore, it is recommended to study the effect of social construction on postpartum body image concerns by considering the community's cultural context. Another limitation of this study was the lack of evaluation of mothers' nutritional status and physical activity. Therefore, it is recommended to conduct more studies to investigate the effect of a counseling program on physical activity and nutritional status on the quality of life in women with body image concerns.

Given the effect of a midwife-led counseling program and the need for advanced psychiatric competence provided by a midwife, it is recommended to employ this method to reduce women's postpartum body image concerns and improve their quality of life.

The study results showed that midwife-led counseling programs could affect the quality of life domains

(including vitality, mental health, general health) and its total score. Given that the postpartum period covers a critical time for women and changes occurring in the body during this period and coinciding with the process of becoming a mother, it is recommended to consider women's postpartum body image concerns and providing the necessary educations in this regard.

Ethical Considerations

Compliance with ethical guidelines

The present study was conducted with the approval of the Research Deputy of the Alborz University of Medical Sciences and the Ethics Committee of the university with the code of Abzums. Rec. 2017. 167. Also, it was registered in the clinical trial system with the code IRCT20150119020719N8. Before the study, its objectives and the confidentiality of all information were explained to the participants. Informed consent was also obtained from all participants, and the researcher tried to observe all the material and spiritual rights of the study samples.

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Author's contributions

Methodology: Sedigheh Salehi, Mina Ataei, Zohreh Mahmoodi; Supervision: Sara Esmaelzadeh; Investigation, Writing – original draft, and writing – review & editing: Mitra Rahimzadeh; Data collection and data analysis: All authors.

Conflict of interest

The authors declared no conflict of interest.

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