EFFECT OF GROUP COUNSELING ON BREASTFEEDING SELF-EFFICACY AMONG NULLIPAROUS WOMEN ATTENDING TO HEALTH CENTERS IN HAMADAN, IRAN

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ABSTRACT

Objective: To determine the effect of group counseling on breastfeeding self-efficacy among nulliparous women in Hamadan City of Iran.

Methodology: This project was a randomized clinical trial study. A total of 136 nulliparous women referring to health centers in Hamadan, Iran in 2017 who had got the minimum self-efficacy score were randomly divided into two experimental and control groups (n = 68). The data collection tool was a personal information questionnaire, Fax and Dennis Breastfeeding Self Efficacy Scale, which was filled out before and after the intervention. Data were analyzed by independent t-test, paired t-test and chi square using SPSS 21 software.

Results: The findings showed that mean age was 24.8 ±4.9 in the experimental group and 23.8 ±4.8 in the control group, and the mean of the spouse's age in the experimental and control groups were 29.2 ±4.8 and 27.5 ±3.7, respectively. Most of the subjects in the experimental group (73.5%) had moderate self efficacy before the intervention and only 20.6% of the subjects had high or favorable self-efficacy. At the end of the study, 50% of the attendants earned average self efficacy and 50% earned high self efficacy.

Conclusion: Group counseling among nulliparous women had a positive effect on the breastfeeding self-efficacy among them.

Key Words: Group counseling, Breastfeeding, Self-efficacy, Nulliparous

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INTRODUCTION

Breast milk is a gold standard and ideal for nutrition and immunity in infants. About four million infants die almost every year, mostly in developing countries. According to reported studies exclusive breastfeeding in the first six months of an infant's life and its continuity up to 2 years may prevent the death of 1.3 million infants annually[1]. Breastfeeding is universally accepted in the health and well-being of mother and child all over the world. As stated in the American Academy of Pediatrics in 1997, breast milk is a healthy, nutritious and standard food for healthy infants, and in most cases it should be the only food to be fed to the infant for about six months after birth[2].

Successful breast feeding depends on many physiological and psychological factors[2]. Breastfeeding reduces different types of infections especially gastrointestinal and respiratory infections and consequent infant mortality[3]. Studies have shown that in addition to the immunity and safety of breast milk its consumption imposes less expense on the family and prompts the mother and child to interact with each other and get more and more interested in each other. Additionally breastfeeding not only improves the health of the infant but also ensures health and well-being throughout life including adolescence, youth, middle age and even old age[3]. Despite the World Health Organization's suggestion, the exclusive breastfeeding rate in Iran at national level is reportedly 56.8% at four months and 27.7% at

six months. This rate in urban areas of Iran is 56% at 4 months and 27% at six months and in rural areas of Iran 58% at 4 months and 29% at 6 months of age[3]. The continuation of breastfeeding among American and Canadian women is even lower[4].

Evidence suggests that despite World Health Organization's proposals, in most parts of the world most women stop breastfeeding at 6 to 12 months of infants age. In Canada one-third of Canadian women breastfeed their babies and takes their baby eight weeks after childbirth. The reason for the early withdrawal is lack of milk[4]. In Iran, despite the fact that the Ministry of Health and Medical Education promote breastfeeding as one of the most important drivers for the growth and survival of the child, the prevalence of exclusive breastfeeding is very low[2]. Many factors affect the continuation of breastfeeding, including age, mother's education, family income and support, prenatal measures, decision-making time for the first breastfeeding first feeding time as well as mother's skill and self-efficacy in breastfeeding and the amount of stress perceived by her. One of the behavioral psychological components that can be considered as a theoretical framework for interventions is self-efficacy so that breastfeeding self-efficacy can be the strongest predictor of nutrition by means of breastfeeding[1,5].

Self-efficacy means the person's confidence and belief in his own ability to conduct health behavior from the structures introduced by Bandura. In this regard, Dennis believes that the higher is the breastfeeding self efficacy rate in mothers, the longer will be the duration of the exclusive breastfeeding[6]. Self-efficacy is one of the modifiable variables and an important factor in identifying predisposing factors for early breastfeeding discontinuation which can be corrected through training[3].

Low self-efficacy can destroy motivation, minimize wishes, and interfere with cognitive ability and leave an adverse effect on physical health. On the contrary, those who have a high self efficacy believe that they can effectively deal with the events and conditions they encounter[3]. Selection of breastfeeding is influenced by economic-demographic factors such as age, number of births, maternal conditions, educational level, income and social support. However breastfeeding continuation depends more on the mother's willingness to breastfeed, her consent to breastfeeding and the support from the health system. For successful breastfeeding a mother needs to have proper counseling, sense of peach and self-confidence, and obtaining the necessary skills. A systematic review of existing evidence suggests that breastfeeding counseling is both effective in increasing the speed of breastfeeding start as well as increasing the duration of breastfeeding[4]. Prenatal and postpartum counseling is one of the most important preventive factors in mortality and reduces prenatal complications and neonatal morbidity[5]. Therefore the purpose of this study was to determine the effect of group counseling on the breastfeeding self-efficacy among nulliparous women attending Hamadan health centers.

METHODOLOGY

This was a randomized clinical trial. The trial was registered with Ethics Committee of Hamadan University of Medical sciences Hamadan, Iran (UMSHA). The samples were recruited from health centers of Hamadan city, western Iran from July 2017 to December 2017. Sample size was estimated based on a previous study by Mir-Mohammad et al[6]. The level of significance was set at 5% (α=0.05), while the power of the study (1-β) was set at 80%; 68 subjects were required per group.

Participants were randomized using a computer-generated list (www.randomization.com) which was stratified by age and current breastfeeding. An investigator who had not been involved in testing or the delivery of the intervention prepared the random assignments.

The study population consisted of all nulliparous women who attended Health Centers in Hamadan. The health centers of Hamadan were divided into four regions from the geographical point of view. From the north and south, east and west regions of the city, two clinics were randomly selected. A total of 8 clinics were reviewed. Then 136 people who did not receive the least self-efficacy score and had criteria for entering the study i.e. age 18-35, first delivery and the desire for breast feeding, single pregnancy and full term baby, lack of disease and risk cases, normal delivery, having a healthy baby and over 2500 grams weight were randomly selected and divided into two groups; 68 subjects in case and 68 in control. After introducing the researcher and explaining the purpose of the study and the method of work, voluntary and informed consent was obtained from the subjects. The criteria to exclude the subjects were; mental and emotional changes, physical illness and change in place of living. Data collection tool was Fax and Dennis Breast feeding Self Efficacy Scale. Fax and Dennis Breast feeding Self Efficacy Scale has 33 options. Which is 5 Likert options (I totally disagree = 1, I disagree = 2, I do not comment = 3, I agree = 4 and I totally agree = 5). Score 33-76, 77-120 and 121-165 were Low, Moderate and high self efficacy, respectively.

The reliability of Fax and Dennis breastfeeding self efficacy questionnaire was approved with Mir Mohammad et al. (α = 0.80)6. In this research, content validity method was used for instrument validity. This questionnaire was completed before and after group counseling. In this research, group counseling was conducted in the form of counseling stages of GATHER[7,8] during

two sessions of 30-45 minutes in groups during the first week and the second week after delivery. Between the training sessions and the end of the study telephone contacts with all the mothers of the test group was continued for training and follow up. Finally, the post-test session was formed on day 42nd after delivery and the participants in both the experimental and control groups again filled out the breastfeeding self-efficacy questionnaires. Then, the results of the study were analyzed. Paired t-test, x2 were used to compare the effects of intervention before and after the intervention. The significance level of the tests has been considered to be less than 5%. The data were analyzed using SPSS version 21.

RESULTS

Table 1 demonstrates demographic characteristics of participants. The two groups were similar at baseline. No significant differences were found between the groups in terms of age, husband's age, gestational age and BMI.

Most of the subjects in the experimental group (73.5%) had moderate self efficacy before intervention; while at the end of study 50% of these individuals had a high self-efficacy (p= <0.001), Table 2.

Only the newborn's weight had a significant correlation with the rate of mother's breastfeeding self efficacy (p= 0.003). In the remaining cases, there was no effective relationship (Table 3)

DISCUSSION

In this study, the results showed that counseling is effective in breast feeding self efficacy. Therefore, increasing the sense of self-efficacy of mothers can lead to the continuation of breast feeding among them. The findings of the study showed that the majority of subjects in the experimental group (73.5%) had moderate self efficacy before intervention, and only 20.6% of the subjects had high or good self-efficacy, while at the end of the study, 50% of these individuals achieved moderate self efficacy and 50% achieved high self-efficacy. The percentage of people with poor self efficacy had reached zero. In this regard, Mir Mohammad et al[6] in the training group with direct midwife intervention, the breastfeeding self efficacy was higher. While in the study of Azhari and the colleagues[7], the training group had a higher self efficacy score without the intervention of the trainer.

The findings of the study showed that the majority of subjects in the experimental group (73.5%) had mod-

Table 1: Mean and standard deviation of quantitative data in the experimental and control groups

Variable	Control Group, n=68		Experimental Group, n=68		P Value
	Mean	Standard Deviation	Mean	Standard Deviation	
Age (year)	23.8	4.8	24.8	4.9	0.233
Husband Age (year)	27.5	3.7	29.0	4.8	0.088
Gestational Age (week)	38.6	1.7	38.1	2.9	0.444
BMI (Kg/m^2)	21.9	3.3	23.1	3.8	0.104

Table 2: Comparison of self-efficacy in nulliparous women in both groups

Variable		Frequency (Percent)				P Value
		Control Group, n=68		Experimental Group, n=68		
		Before	After	Before	After	
Self-efficacy	Low (33-76)	27 (39.7)	30 (44.1)	4 (5.9)	0 (0.0)	<0.0013
	Moderate (77-120)	38 (55.9)	37 (54.4)	50 (73.5)	34 (50.0)	
	High (121-165)	3 (4.4)	1 (1.5)	14 (20.6)	34 (50.0)	
P Value (paired t-test)		<0.561		<0.001		

Table 3: Relationship of different variables with self-efficacy based on logistic regression model in experimental and control groups

Variable	Standardized Coefficients	Regression Coefficients		P Value
		SD	Coefficient	
Mother's Age	0.121	0.267	0.3	0.264
Husband's Age	0.11	0.231	0.247	0.287
Mother's Job	0.054	3.516	2.49	0.48
Husband's Job	0.077	8.64	9.488	0.276
Mother's Education	-1.113	1.589	-2.274	0.154
Husband's Education	-0.088	1.485	-1.496	0.315
BMI	0.028	0.263	0.094	0.722
Pre-Pregnancy Care	-0.004	1.978	-0.112	0.955
Prenatal Care	0.072	7.274	7.214	0.323
Satisfaction of Husband	-0.334	1.385	-5.983	>0.010*
Monthly Income	-0.002	0	-4.88	0.928
Sex of Newborn	0.001	1.823	0.021	0.991
Gestational Age	-0.133	0.46	-0.759	0.101
Weight of Newborn	0.249	0.002	0.007	0.003*

erate self efficacy before intervention and only 20.6% of the subjects had high or good self-efficacy and in the control group at the beginning of the study, 39.7% of the subjects had a low self efficacy and 55.9% had moderate self-efficacy and only 4.4% had high self efficacy. The findings of this study showed that self-care counseling was effective in the experimental group and increased self efficacy in this group compared to the control group. Breast feeding is one of the most important factors in the health of infants. In this regard, the results of Parsa et al. showed that breastfeeding counseling by midwife is effective on self efficacy and continued breast feeding[8]. Another study emphasized the importance of continuing care and health counseling to maintain breastfeeding particularly on exclusive breastfeeding[9].

Various studies have shown that education and counseling are effective in initiating and continuing breastfeeding but in the present study an educational-counseling package based on the mothers' breast feeding self efficacy has been used, which the results that it is more effective method for successful breast feeding. In the Lehane study it was also concluded that self-care programs increased breastfeeding self efficacy in the intervention group, which is consistent with the results of this study[10]. In another study by McQueen et al[11] the results of the study indicate that the breastfeeding self efficacy score of in the intervention group is lower than that of the control group and contradicts the results of this study. Another study showed that educational intervention was associated with an increase in the rate of breast feeding self efficacy at weeks 4th and 8th after the delivery, which is consistent with the results of the present study[12-14].

CONCLUSION

The findings of the study indicate that group counseling improved the breastfeeding self efficacy.

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CONTRIBUTORS

FS conceived the idea, planned the study and drafted the manuscript. SMH, BK, GR helped acquisition of data, did statistical analysis, editing and final approval of manuscript. All authors contributed significantly to the submitted manuscript.