

The effect of breastfeeding educational program on breastfeeding condition

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Abstract: Breastfeeding has long been recognized as the preferred method of feeding in the first year of life and W.H.O has recommended exclusive breastfeeding for 6 months. Despite the clear benefits of breastfeeding to mother and infant, breastfeeding rates today continue to remain below of recommended level in many countries. Research has shown that mothers' information about advantages of breastfeeding may be one of the predictor factors affecting breastfeeding, so this study has been done with objective of determination the effect of breastfeeding educational program on breastfeeding condition. A Quasi-Experimental study design was used to test the effect of breastfeeding educational program on exclusive breastfeeding duration. A convenience sample of 120 pregnant women referred to health centers of Ahvaz were selected and divided randomly in two groups. All women were primiparus and indicated their intent to breastfeed their infant. In their last month of pregnancy case group received breastfeeding educational program. Six month after delivery breastfeeding condition in two groups was determined by researchers. Findings of this study showed that the difference between means of exclusive breastfeeding duration between the two groups was statistically significant. The mean duration of exclusive breastfeeding was 5.2 month in case group compared to 2.05 for control group. The results of this study suggested that breastfeeding education in last trimester of pregnancy may increase the duration of breastfeeding and it seems that compilation of educational program in prenatal care of pregnant women is necessary. [Shirin Hasanpoor, Somayeh Ansari, Soheila Bani, and Hossien Ebrahimi. **The effect of breastfeeding educational program on breastfeeding condition.** *Life Sci J* 2012;9(4):3188-3192]. (ISSN: 1097-8135). <http://www.lifesciencesite.com>. 468

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Introduction

Breastfeeding is one of the most important methods in children's health improvement and a basic strategy in providing children's survival and growth in society. The positive effects of breastfeeding on children's growth and development, as well as on mothers' health, are known for many years and it is noticed by the world health organization, UNICEF, and all scientific communities in the world. (1, 2).

The world health organization recommends that children should continue exclusive breastfeeding during the first six months of their lives and then, along with complementary nutrition, continue it for 2 years. (3, 4). Different statistics show that in developing countries, due to not using mother's milk, the infant mortality rate is one child every 30 seconds and 1.5 million children every year. In these countries, 70 percent of infant mortality is due to not using mother's milk. Although the evidences show that the advantages of breastfeeding for human infant increases by increasing the duration of breastfeeding and exclusive breastfeeding, most women stop breastfeeding while only a few of them do that

because of physical problems (6). With regard to the importance of breastfeeding in disease prevention and its advantages for mother and child, stopping breastfeeding, especially in first six months of the child's life, will be disadvantageous for the mother, the child, and the society. Many studies are done about exclusive breastfeeding, all of which show that breastfeeding rates and exclusive breastfeeding are still way far from fulfilling the world health organization's recommendations (7). Despite the fact that 96 percent of the mothers tended to breastfeed their children, the recent study in Japan showed that only 44 percent of them had exclusive breastfeeding for the first four weeks after childbirth and also less than 35 percent of Canadian mothers and 29 percent of American mothers had exclusive breastfeeding for 4 months (6). Although the ministry of health and medical education in Iran considers the promotion of breastfeeding as one of the important strategies for children's survival and growth and took some effective steps in that field, the prevalence of exclusive breastfeeding is very low. According to the last study done in Iran and titled "Reviewing the

Characteristics of Population Indicators in year 2002", the indicator of exclusive breastfeeding, until the child was 6 months old, was reported to be 23/1 percent in the whole country and 19/5 percent in the city of Ahvaz (8). The study done by Torabizadeh et al, shows that in most of the cases, stopping breastfeeding was due to the unawareness of women and the people around them (9). The studies done in different places of the world show that mother's awareness of the advantages of breastfeeding, her attitude towards breastfeeding, marriage age, increasing the level of education, family income, supports received from the family, decision making to breastfeed during pregnancy, the experiences related to the first breastfeeding, and her self-confidence during breastfeeding, were effective factors in the continuation of breastfeeding (10). Moreover, factors such as false beliefs in breastfeeding are the important reasons for stopping breastfeeding and interfere with breastfeeding. They are also important in feeding with powdered milk (11). Since women's awareness about breastfeeding is one of the effective factors on breastfeeding condition, and according to the low rate of exclusive breastfeeding in the city of Ahvaz, we decided to do the present study which aims to identify the effect of breastfeeding educational program on breastfeeding condition in the city of Ahvaz.

Methodology

This study is a semi-experimental study that aims to review the effect of breastfeeding educational program on breastfeeding condition among the mothers who referred to health centers of Ahvaz in year 2010. In this study, all those women who were pregnant for more than 36 weeks and referred to health centers of Ahvaz for prenatal care formed the research population. The study inclusion criteria were: first pregnancy, gestational age of over 36 weeks, over 18 years of age, wish to breastfeed, no systemic disease (according to the mother stating it by herself), no breast abnormalities in mother, and having the minimum literacy level of guidance school. If the mothers changed their minds about participating in the study or an infant died, they were excluded from the study.

In this study, the data collection instrument was a questionnaire consisting of two sections: the first section was related to personal-social characteristics of research samples and the second section was related to the women's breastfeeding condition in the sixth month after childbirth. The breastfeeding condition was divided into five columns: mother's milk (breast milk) only, consuming mother's milk in addition to other liquids, consuming mother's milk and less than a bottle of

powdered milk per day, consuming mother's milk and a bottle (or more than a bottle) of powdered milk per day, and infant's feeding without using mother's milk. To achieve scientific validity of the instrument, content validity method was used and the instrument was analyzed by ten faculty members of the school of nursing and midwifery and their comments and suggestions were applied to the questionnaire. In order to achieve scientific reliability of the instrument, test-retest method was used. In this study, 120 pregnant women who referred to health centers of Ahvaz for prenatal care were selected based on study inclusion criteria. Then, after obtaining written consent from the mothers and completing the first section of the questionnaire, they were randomly divided into two groups: case group and control group. The members of the control group received only routine prenatal care while for the members of the intervention group, 2 sessions of breastfeeding education within 2 days were held and each session lasted 2 hours. In these sessions, a handbook of breastfeeding, which was already compiled by the researcher, was also given to the pregnant women. It is worth mentioning that the handbook included an introduction about breastfeeding, the advantages of mother's milk for the child, the mother, the society and the proper breastfeeding position, mother's condition, child's condition, proper way of sucking, mother's breastfeeding conditions and actions that guaranteed mother's success in breastfeeding. In the first month after childbirth, the mothers in intervention group were given a call to be encouraged in breastfeeding and guided, if they had any problems. The researcher's phone number was given to the mothers so that if there was any problem in breastfeeding, they could call the researcher. Finally, the questionnaire related to breastfeeding condition 6 months after childbirth was given to the mothers to be completed. After the end of the sessions and completing the questionnaires, the final results among the mothers in case and control groups were analyzed by SPSS software and descriptive and inferential statistics.

Results

The research findings showed that the age range of the research samples was between 18 to 39 years old, average age was 26/6 years old and its standard deviation was 5/5. The average age of marriage was 23/7 with a standard deviation of 5/2. The women participating in the study were all pregnant for 36 to 42 weeks and the average age of pregnancy was 38/06 with a standard deviation of 1/78. Most of the research samples had secondary education (high school diploma) and their monthly earnings was between 200,000 to 500,000 tomans.

Moreover, most of them were housewives and 47/5 percent of them were highly provided with emotional supports of their husbands and only 6/7 percent of them stated that the emotional supports of their husbands were very low (Table 1). The results of the chi-square test and T-test show that there is no significant difference in personal-social characteristics

of the studied variables in case group and control group. Table 2 shows mothers' breastfeeding condition 6 months after childbirth in intervention group and control group. Independent T-test showed that there is a significant difference between the average duration of exclusive breastfeeding in case group and control group (Table 3).

Table 1: Personal-social characteristics of the mothers who referred to health centers of Ahvaz

Group Variable		Control		Case		Test Results
		Numbers	Percent	Numbers	Percent	
Education	Middle (guidance)	10	16/7	7	11/7	$\chi^2=3/56$ df=3 P>0/05
	Secondary school	19	31/5	15	25	
	Diploma	18	30/1	28	46/7	
	College	13	21/7	10	16/6	
	Total	60	100	60	100	
Occupation	Housekeeper	52	86/7	46	76/7	$\chi^2=3/2$ df=2 P>0/05
	Working	8	13/3	14	23/3	
	Total	60	100	60	100	
Variable		MD±SD		MD±SD		Test Results
Age		26/04±5/4		26/8±5/7		t=0.3 df=118 P>0.05
Marriage Age		23/4±4/9		24±5/4		t=0.66 df=118 P>0.05
Pregnancy Age (week)		38±2		38±1/4		t=0.54 df=118 P>0.05

Table 2: Comparison of breastfeeding condition 6 months after childbirth in control group and case group

Group Variable	Control		Case	
	Numbers	Percent	Numbers	Percent
Mother's milk only	10	16/5	23	38/3
Mother's milk in addition to other liquids	15	25	17	28/3
Mother's milk and less than a bottle of powdered milk	10	16/7	11	18/3
Mother's milk and a bottle (or more than a bottle) of powdered milk	14	23/4	6	10
Infant's feeding without using mother's milk	11	18/3	3	5
Total	60	100	60	100

Table 3: Comparison of the duration of breastfeeding in case group and control group in health centers of Ahvaz

Variable \ Group	Control		Case		Test Results		
	Average	Standard Deviation	Average	Standard Deviation	P value	Df	T
Duration of exclusive breastfeeding	2/73	1/69	5/03	1/66	P<0/05	53	2/84

Discussion

This study was done to identify the effect of a breastfeeding educational program on breastfeeding condition of the mothers who referred to health centers of Ahvaz. The findings of the study showed that most of the participants of the intervention group began breastfeeding immediately after the childbirth and continued it up to the sixth month after the childbirth. The present study indicates that exclusive breastfeeding duration among the mothers who received educational program, compared to the mothers of control group, increased significantly (5/03 in 2/73 months). Moreover, the ratio of people who breast-fed their children using mother's (breast) milk and less powdered milk and other liquids, was higher in intervention group. This shows the effect of education on breastfeeding condition. It could also indicate that increasing information in mothers before childbirth and postpartum follow-ups could affect mothers' breastfeeding behaviors. The study done by Forster in Melbourne about breastfeeding face-to-face education on 972 women with primiparous pregnancy and during weeks 18-20 of pregnancy, showed that, compared to control group, education would increase the beginning of breastfeeding and the continuation of breastfeeding 6 months after childbirth by 10 percent, which was consistent with our study (12).

The results of the study done by Heirdarnia et al. (2007) in Iran, showed that on the whole, using health educational programs had significant effects on increasing the awareness, attitude and performance of the research samples in breastfeeding children. Moreover, the study done by Sharifi Ra'ad et al. (2010) in Arak showed that breastfeeding educational program had a positive effect on mothers' breastfeeding behavior. The results of both studies are consistent with ours. A lot of studies about exclusive breastfeeding are done, all of which show that the rate of exclusive breastfeeding is still way far from fulfilling the world health organization's recommendations. While pregnant, mothers receive sparse information about exclusive breastfeeding, but since basic education is not sufficient, cultural and

social beliefs affect breastfeeding success. In developed countries and for mothers to success more in breastfeeding, the education begins before birth and resourceful and interested people carefully prepare mothers for successful breastfeeding (13). It is hoped that the results of this study will encourage the country's esteemed health authorities to develop a proper educational program (curriculum) for pregnant and nursing women and make mothers more successful in exclusive breastfeeding.

Conclusion

the basic role of breastfeeding in children's health, growth and development, have been known for years. Almost all women are capable of breastfeeding, yet most infants are deprived of exclusive breastfeeding. Promoting the level of breastfeeding throughout the society, without women's help and support, is not possible and health care workers play a key role in this. Thus, holding educational sessions and encouraging parents to participate in these classes seem necessary in prenatal care.

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