



IMPACT OF EXCLUSIVE BREASTFEEDING EDUCATION ON MATERNAL STRESS REFERRED TO SELECTED HOSPITALS AFFILIATED TO UNIVERSITIES OF MEDICAL SCIENCES IN TEHRAN DURING 2009-2010

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ABSTRACT

Breastfeeding saves the lives of more than one and half million infants per year and strengthens the mother-child emotional relationship plays a significant role in their psychosocial development characteristics. This research aims at determining the impact of exclusive breastfeeding education on maternal stress. In this descriptive-comparative clinical trial study, the researcher randomly selected three hospitals from hospitals affiliated to universities of medical sciences with premature infant intensive care unit, and attended in research space in three months. He took samples from eligible mothers and collected data through responding to questionnaire. 100 nulliparous mothers were entered into study and randomly put into two groups of case (n=50) and control (50) groups; and the intervention group was put under the face-to-face education after delivery during a 45-minute session and finally the educational booklets were given to them. Control group did not receive any training program by researcher; and the questionnaires were responded again by samples in both groups a month later. The questionnaire consisted of three parts. The first part was about personal characteristics, and the second one was about perceived stress. Content validity was utilized to determine the validity of first questionnaire. The perceived stress questionnaire contained the standardized tests with approved validity by numerous researchers and psychologists. T Test-Retest was used to determine validity. Data analysis was done by descriptive and inferential statistical software, t-test, Paired t-test, and Chi-square test. According to results of test, there is a significant difference between maternal stress in case group before and after education. Education has a significant effect on mothers' perceived stress in case group after education ($t= 2.20$ and $p<0.05$). Education of exclusive breastfeeding for premature infants reduces the maternal stress and it can be concluded that mothers with premature infants need special breastfeeding education.

Keywords: *Education, maternal stress, premature infants*

INTRODUCTION

Stress as one of the most important studied issues in the field of mental health has a negative impact on human physiological function². In general, despite the fact that being mother is a joyful and meaningful experience, this stage of life is associated with a series of sudden changes and thus it is known as a stressful life event^{5,9}. Patient education can improve the healthcare level, reduce the anxiety and creates a high level of patients' satisfaction^{1,8}.

MATERIALS AND METHODS

This research is a descriptive-comparative clinical trial. From hospitals affiliated to Tehran Universities of Medical Sciences with intensive care units for premature infants, this research randomly selected 3 hospitals (Akbar-Abadi, Imam Hussein, and Hazrat Rasoul-e-Akram Hospitals) and researcher attended in selected hospitals for three months and took samples from eligible mothers by gradual random sampling. The selected mothers were alternatively put into control and case groups. A questionnaire with three parts was data collection tool in this research: First part consisted of 7 questions about subjects' personal characteristics such as age, educational level, employment status, family income, infant's weight at birth, and infant's gestational age at birth. The second part contained 14 questions about perceived stress; and the questions were responded by the options namely "always, often, sometimes, rarely, never" and they received the scores of four, three, two, one, and zero respectively. The personal characteristics questionnaire was designed according to literature review, and different books and papers, and its content was studied by several professors at Tehran Medical Branch of Islamic Azad University. Ultimately, the final questionnaire was designed and used by applying their views and points. The Perceived Stress Questionnaire contains the standardized tests which are validated by several researchers and psychologists. In this study, the "Perceived Stress variable" was examined by Perceived Stress Questionnaire⁶ and the validity of Perceived Stress Questionnaire was measured by Joy³, by Zarrabi⁷ at Iran University (2008) and Hosseini⁴ and Bastani². This study used test-retest to estimate the reliability. Therefore, a questionnaire was designed and responded by ten eligible subjects and again it was responded by the

same people ten days later. The perceived correlation coefficient was 82%. However, these ten subjects were not among the research samples. In the study, 100 eligible nulliparous mothers were included in research after obtaining their consent. The questionnaires were given to both control and case groups. After responding to questionnaires by 50 mothers participating in case group, an educational face-to-face program was held with educational content of exclusive breastfeeding and its advantages for premature infants during a 45-minute session at least 5 hours after birth, and it was done by presentation and question-answer method. Finally, the educational booklets were given to research samples. The control group did not receive any educational program by researcher; and the questionnaires were again responded by samples in both case and control groups a month later. In this study, the data is quantitative (age, family income, infant's weight at birth, and gestational age at birth) and qualitative (employment status and educational level). It is two-group in terms of number of studied groups, and is nominal-ranked based on scale; and bivariate based on number of variables. The education is the independent variable; and stress is the dependent variable in this research. Descriptive statistics including the tables of absolute and relative frequency, graphs, mean and standard deviation are used for data analysis in this research. Furthermore, the inferential statistics including the t-test, chi-square and Paired t-tests are used in this research.

Findings

In case group, the highest percentage of age was from 21-25 years; the highest percentage of education was diploma; the highest percentage of employment was housewifery; the highest percentage of income level was 300-600 thousand Tomans; the highest percentage of infant's weight was 2500-2999 and the highest gestational age was about 36 to 36.6. In control group, the highest percentage of age was from 21-25 years; the highest percentage of educational level high school level; the highest percentage of employment was housewifery; the highest percentage of income level was 300-600 thousand Tomans; the highest percentage of infant's weight at birth was 2500-2999; and the highest percentage of gestational age was about 36 to 36.6. According to Chi-square test, there was not any significant difference between case and control groups in terms of characteristics.

Table 2

Comparison of maternal stress in case and control groups before education; in case group after education; and in control group after the second test; and comparison of maternal stress in case group before and after education

Education Group	Before education				After education			
	Case		Control		Case		Control	
Stress	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage
Low stress 0-28	11	22	10	20	29	58	9	18
High stress 29-56	39	78	40	80	21	42	41	82
Mean	31.0200		44.0600		27.9600		30.4200	
Standard deviation	30.3800		4.54856		5.93145		5.19061	
Test result	T = -0.702				T = 2.207			
	P = 0.485				P = 0.003			
	Df = 98				Df = 98			

According to the table above

T-test indicates that there is not any significant difference between control and case groups in terms of maternal stress before education. T-test indicates that there is a significant difference between control and case groups in terms of maternal stress after education. Paired t-test indicates that there is a significant difference between rates of maternal stress before and after education. Df =49, P=0.016, T=2.501

CONCLUSION

According to findings of this research, the offered hypotheses are accepted or rejected according to the following conclusion: The test results indicate that there is a significant difference between rates of perceived stress before and after education in case group, while there is not any significant difference between rates of perceived stress before and after education in control group. Therefore, we can conclude that the education has a significant impact on subjects' perceived stress and reduces stress in studied units; hence, the second hypothesis is confirmed.

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