

Effects of Peer Education on Improving Self-Efficacy of Pregnant Women in Breastfeeding the Baby

SITI MARDIYAH¹, ANGGOROWATI², ARTIKA NURRAHIMA³

¹Department of Nursing, Kusuma Husada School of Health Science, Surakarta, Indonesia

^{2,3}Department of Nursing, Faculty of Medicine, Diponegoro University, Semarang, Indonesia

Correspondence to Siti Mardiyah, Email: baktikita@gmail.com, Telp: 082324895403

ABSTRACT

Background: Self-efficacy of breastfeeding mother is the belief and ability of mother to provide adequate breast milk to the baby. Peer education is a method which can be used to improve knowledge which can also increase self-efficacy. However, limited studies were done about the effect of peer education on self efficacy of pregnant women in Indonesia.

Aim: To determine the effect of peer education on the self-efficacy of pregnant women in breastfeeding their baby.

Method: This was a pre-post test quasi-experimental study with a control group. Total samples were 80 pregnant women which were divided into intervention group (n=40) and control group (n=40). Subjects were recruited using a cluster sampling technique. Intervention group was given peer education in three meetings, while control group was not received education. The breastfeeding self-efficacy were measured using the breastfeeding self-efficacy scale (BSES) instrument, which amounted to 14 questions. Wilcoxon and Independent t-test were employed to analyze the data.

Results: The result showed differences in the self-efficacy of pregnant women before and after peer education in the intervention group ($p=0.000$) and between groups after peer education ($p = 0.000$). This indicated that there was a significant difference in the increased self-efficacy of pregnant women in breastfeeding the baby between the intervention groups receiving peer education and the control group receiving no peer education.

Conclusion: Peer education increases self-efficacy of pregnant women in breastfeeding the baby.

Keywords: Breast milk, pregnant mother, peer education, self-efficacy

INTRODUCTION

Pregnant women are one of vulnerable groups in society. They have risk on health problems which caused by various factors. These factors include biological, age, social, economic, and lifestyle factors.¹ An unbalance nutrition in pregnant women influence their milk production when their baby is born.²

According to WHO, exclusive breastfeeding coverage worldwide is only about 36% over the 2007-2014 period. By 2015, the coverage of exclusive breastfeeding in Indonesia and especially in Central Java province is 55.7% and 56.1% respectively.³ The coverage in Central Java province slightly increases to 59.9% in 2016 though it is still considered as low coverage compared with the national target which is 80%.^{4,5}

Although exclusive breastfeeding has been recommended by the government of Republic of Indonesia⁶ through an act No. 33/ 2012, its coverage is still low due to many factors. Factors affecting the low coverage of exclusive breastfeeding are socio-cultural changes, psychological factors, maternal physical factors, increased promotion of canned milk and the public, lack of information and knowledge about breast milk in baby.⁷

Achieving exclusive breastfeeding can be done by instilling confidence and mother's ability to breastfeed their babies. Confidence is related to self efficacy. Self efficacy affects the individual in determining the action to be taken to achieve a goal. Previous research has shown that the better self efficacy, the better mother's behaviour in breastfeeding.⁸ Several factors influence the self efficacy of mothers to breastfeed their babies.⁹ Mothers with low confidence will tend to have twice risk of stopping breastfeeding.¹⁰

High self efficacy in breastfeeding can be achieved by increasing mother's knowledge of breastfeeding. Knowledge or cognition is a very important part in shaping one's actions (over behavior).¹¹ Knowledge can be improved by peer education. Peer education is the delivery of information by forming peer groups. Peer groups can be performed in adults of equal status.¹² Education conducted by peer education is usually done by using a simple language and in accordance with the character of friends so that information can be received well by members of the group.¹³ Peer education is done by more discussion, practice and play so that the educational process can be created with a good atmosphere and not boring.¹³

Peer education is effective because it can be done in a relaxed atmosphere so that learners are able to absorb knowledge properly.¹⁴ The results of previous research methods of peer education in junior high school students showed the result that peer education was effective in enhancing knowledge and attitudes about HIV / AIDS.¹² However, there were limited studies about the effect of peer education on the self efficacy of pregnant women in breastfeeding. Therefore, this study aims to determine the effect of peer education on the self-efficacy of pregnant women in breastfeeding their baby

MATERIAL AND METHODS

This research was a quasi experiment pre-test and post-test control group study using comparative analytic method. The population in this study is all pregnant women in Tanon Sragen Public Health Center area. The total population of pregnant women in Tanon Public Health Center Area was 182 pregnant women. Sampling technique used cluster sampling. The subjects were recruited based on cluster or

certain area.¹⁶ The number of samples in the research was 40 respondents in the intervention group and 40 respondents in the control group. Inclusion criteria in this research were 1) being in Tanon Public Health Center area, 2) healthy pregnant mothers, 3) willing to become respondent. Exclusion criteria were pregnant women who were refused or unwilling to complete the intervention.

Study variables: The instruments in this study consisted of respondents' characteristic consisting of questions containing age, pregnancy/parity, education, employment and mother's income and Breastfeeding self efficacy scale short form / BSES-SF comprising of the 14 questions developed by Dennis.¹⁷ The reliability test results on the converted instrument showed the value of cronbach's alpha coefficients of 0.872. The intervention of this research consisted of two stages, the first stage of peer educator training. Peer educator training was conducted by selecting from research subjects according to the criteria to become educators and they were given training on exclusive breastfeeding. The training was conducted four times using pretest, posttest and observation sheets. Second stage, implementation of peer education. Peer education was carried out by peer educators who have been trained in the first stage. Peer education was held three times with pretest and posttest.

Data collection and analysis: Data were presented in the form of frequencies and percentages. Numerical data were presented in the form of mean, median, and standard deviation (SD). Homogeneity test of respondent characteristics used Compare Means - One Way Anova

while Saphiro wilk and Kolmogorov-Smirnov were used to test the normality. Wilcoxon and Independent t-test were used to test the hypotheses.

Ethical clearance: This study was approved by the Health Research Ethics Committee Diponegoro University School of Public Health No. 013 / EC / FKM / 2018, and had been conducted in April – May 2018. Informed consent was also given to respondents to be signed as an agreement to be the subject of research.

RESULTS

The characteristics of the respondents were shown in table 1. The majority of respondents aged 20-35 years old, had more than one time pregnancy experience, were senior high school graduates, were housewives, and had less than 1,400,000 rupiahs as an income. Anova test showed that the intervention and control group were homogen ($p>0.05$).

Table 2 showed that the self efficacy in the intervention group increased from 31.22 ± 7.14 to 57.4 ± 10.0 after the peer education. There was a significant difference on the self efficacy before and after peer education in the intervention group ($p=0.000$) while the self efficacy in the control group did not differ significantly ($p=0.066$). Independent t-test showed that there was a significant difference on the mean difference of self efficacy between intervention and control group ($p=0.000$) as can be seen from table 3.

Table 1. Respondent Characteristics

Variables	Intervention group n=40		Control group n=40		p
	F	%	F	%	
Age					0.467*
< 20	2	5	1	2,5	
20-35	32	80	35	87.5	
>35	6	15	4	10	
Total	40	100	40	100	
Pregnancy					0.677*
1	13	32.5	11	27.5	
>1	27	67.5	29	72.5	
Total	40	100	40	100	
Education					0.559*
Primary	4	10	3	7.5	
Junior High	7	17.5	8	20	
Senior high	24	60	26	65	
University	5	12.5	3	7.5	
Total	40	100	40	100	
Work					0.090*
Housewife	33	82.5	37	92.5	
Others	7	17.5	3	7.5	
Total	40	100	40	100	
Mother Income					0.244*
<1.400.000	39	97.5	38	95	
>1.400.000	1	2.5	2	5	
Total	40	10	40	100	

* anova

Table 2. Effects of Peer Education on Self Efficacy of Pregnant Women in Breastfeeding

Groups		n	Min-Max	Mean	Mean Difference	SD	Asymp. Sig. 2-Tailed
Intervention	Before	40	24-56	31.22	-26.18	7.14	0.000
	After		30-68	57.40		10.00	
Control	Before	40	14-53	32.95	-0.65	6.75	0.066
	After		14-53	33.60		7.09	

*: wilcoxon

Table 3: Significance of Differences on Mother Self-Efficacy between Intervention and Control Group

Groups	n	Mean Difference	95% CI (Lower/Upper)	Asymp. Sig. (2-tailed)
Intervention	40	23.800	19.939/27.661	0.000
Control	40			

DISCUSSION

In the intervention group, there was a significant improvement of maternal self efficacy in breastfeeding after peer education. Self-efficacy in pregnant women about breastfeeding is very important as a provision to give appropriate milk to babies when they are born. Self efficacy of pregnant women in breastfeeding can be improved by providing sufficient knowledge and skills to the mother. Mothers with good self efficacy means that mothers already have the knowledge, skills and strong beliefs in providing breast milk to meet the needs of the baby. This is supported by previous research which explains that high scores on mothers' self efficacy to breastfeed their infants improve their confidence so it may increase the percentage of exclusive breastfeeding on baby.¹⁹

Previous research suggests that the self-efficacy of breastfeeding mothers is influenced by factors of verbal persuasion, the experience of others, physical and emotional conditions. Verbal persuasion is the influence or invitation of others to perform an action. Another person's experience is the experience that peers or other people get from raising a mother's desire to breastfeed babies. Physical condition is a state of maternal health that affects the mother's ability to breastfeed. Emotional state is the mother's psychological condition during the breastfeeding process which may have an effect on mother's behaviour to breastfeed.²⁰ Other studies also mention factors affecting mother's self efficacy in breastfeeding are knowledge, age, income, parity and income factors.^{21,22}

The result showed that peer education had an influence on increasing self-efficacy of pregnant women in breastfeeding the baby. The results are supported by a study conducted by Yulizawati, *et al.*,²³ which shows the result that peer education interventions have a significant ($p < 0.05$) effect on women's knowledge and attitudes about screening and conception. This means that peer education conducted in women of childbearing age about preconception screening affects the improvement of knowledge and attitude of women of childbearing age. This is also supported by Ervyna, Utami, Surasta in Yulizawati *et al.*²³ showing the effect of peer education on the significant differences between knowledge, attitudes and actions before and after peer education interventions on personal hygiene behavior of genitalia in the prevention of cervical cancer in young women.

Education conducted with approaches to fellow pregnant women in this study was conducted with a relaxed and informal methods. Support and motivation were also done by educators. Support and motivation were

also done to provide confidence and stability of mother in giving exclusive breastfeeding. Previous research explaining social support by friends is included in a range of peer education interventions, social support is in the form of information support and support support by educators who have been trained.²⁴ The delivery of information is done in a language appropriate to their understanding, done a lot by way of discussion and stories so that pregnant women or participants do not quickly feel bored and the material is easy to accept.

CONCLUSION

The findings concluded that there was a significant difference on the self efficacy of pregnant women to breastfeed after peer education in the intervention group compared with the control group. This means that peer education can increase pregnant women's self efficacy in breastfeeding.

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