

ORIGINAL ARTICLE

Effectiveness of Peer Counseling Toward Mother's Knowledge and Skills Among Gave Exclusive Breastfeeding in Cangkringan, Yogyakarta

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ABSTRACT

Introduction: Breastfeeding is a normal condition for babies to get the nutrients they need to grow and develop. Peer counseling is one way that can be used to help mothers in exclusive breastfeeding. The purpose of this research is to find of effect peer counseling on changes in the mother's knowledge and skills of exclusive breastfeeding. **Methods:** The type of study is quasi-experimental research with pre and post-test design without control. The technique of sampling uses probability sampling with random cluster sampling. Samples taken from 5 villages in Cangkringan are 33 mothers breastfeeding infants aged 0- 6 months. This study was conducted from March to May 2016. The instrument used in this study was a questionnaire sheet about mothers' knowledge about exclusive breastfeeding and an observation sheet for breastfeeding observation assistance. The data analysis used the Wilcoxon test because the data distribution did not normal. **Results:** The p-value obtained from the Wilcoxon test result is 0.000 ($p < 0.05$) for the mother's knowledge and the p-value of 0.012 ($p < 0.05$) for the mother's skills, which means that there are differences in knowledge and skills significantly between before peer counseling with after peer counseling. **Conclusion:** Mother's knowledge and skills in exclusive breastfeeding can be increased by peer counseling.

Keywords: Exclusive breastfeeding, peer counseling, knowledge, and skills

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INTRODUCTION

Breastfeeding is the normal condition of the baby getting the nutrients according to their need to grow and thrive. World Health Organization (WHO) recommends breastfeeding exclusively given to babies up to the age of six months, then be continued until the baby is two years old accompanied by the provision of appropriate complementary feeding (1). Data UNICEF in 2009-2013 data shows exclusive breastfeeding <6 months amounted to 42% (2). Indonesia Health Profile 2014 has a target of exclusive breastfeeding at 80% nationally. Based on direct surveys conducted in Sleman City Health Office, the realization of exclusive breastfeeding in 2014 Cangkringan (PHC Cangkringan) that will be used for research has not reached the target that is equal

to 72.13%.

The previous study on the use of peer counseling methods in breastfeeding not only shows positive results but also shows the challenges to the use of such methods. Research conducted in 2006-2008 in sub-Saharan Africa has shown that the approach of using peer counseling for new mothers aged 12 weeks and 24 weeks proved that the use of peer counseling methods of home visits is effective in increasing breastfeeding prevalence ratio exclusive (3).

Challenges or failures in using peer counseling methods can be seen in previous research on two groups, namely the intervention group and the control group. Third time (exclusive, almost exclusive breastfeeding, and predominant breastfeeding) sequentially in the intervention group and the control group, the result is the 5th day: 37% / 38%, 46% / 53%, 57% / 63%; 3rd month: 10% / 9%, 17% / 23%, 20% / 26%; and at month 6: 2% / 1%, 18% / 8%, 18% / 19%. This

study did not show any significant difference between the control group with the intervention group. That is, the peer counseling interventions do not increase the duration and exclusivity of breastfeeding (4).

Research on exclusive breastfeeding is indeed not new anymore and they became a phenomenon both in Indonesia and in the world. That is because until now exclusive breastfeeding remains a significant problem that must be overcome to participate in decreasing mortality in children under 5 years of age. The description of several studies that use the educational method through peer counseling shows differences, namely the success and failure of using the peer counseling method. Researchers have never found the use of peer education counseling methods in groups of exclusive breastfeeding mothers at Gadjah Mada University, therefore the researchers wanted to prove the effectiveness of using this method in exclusive breastfeeding.

MATERIALS AND METHODS

The type of research used quasi-experimental research with pre and post-test design without control. Interventions given in this study were conducted using the method of peer counseling on exclusive breastfeeding in the group of mothers of children aged 0-6 months.

This research was conducted in Puskesmas Cangkringan, Sleman, Yogyakarta. The study was conducted in March-May 2016. The sampling technique used in this study is probability sampling and the researcher selected respondents using a cluster random sampling technique (5). The cluster random sampling technique was chosen because of the large number of hamlets in the village in the Cangkringan District. There are 5 villages in the Cangkringan district, each village consists of 8-24 hamlets that are far apart from each other.

The inclusion criteria used are mothers who are breastfeeding children aged 0-6 months; mothers who stay at one of the villages in Cangkringan District; mothers who can read; and mother who is willing to become respondents in the study. The sample size used in this study of 33 breastfeeding mothers includes 5 villages in Cangkringan. From each village, 6-7 breastfeeding mothers were taken.

Before selecting respondents, the researcher in collaboration with midwives in the health center to select cadres who could be involved in the research. After getting cadres, cadres together the researcher determines counselors based on criteria that have been made. The number of cadres and counselors from each village consists of 4 people, bringing the total cadre to 10 people and a total of 10 counselors. Cadre and counselors trained on exclusive breastfeeding and counseling for 3 days (each 4-5 hours).

After receiving training, counselors meet breastfeeding mothers who have signed informed consent as a respondent to provide peer counseling intervention for 4 weeks. The first week and the fourth to do with home visits, while the second and third weeks through phone calls. Before being given counseling in the first week of breastfeeding mothers fill out a knowledge questionnaire, and counselors make breastfeeding observations to learn skills in breastfeeding mothers. After getting the intervention as much as 4 times in 4 weeks, during the last meeting in the fourth week, respondents filled out questionnaires about knowledge and observation of breastfeeding by the counselor. Questionnaire to submit a post-test that is cadres intended to reduce bias.

The instrument used by the researcher to measure changes in mothers' knowledge of breastfeeding was a breast milk knowledge questionnaire taken from previous studies. The contents of the questionnaire include; benefits for baby, benefits for mother, colostrum, feeding effectiveness, Breastmilk expression, duration of feeding, complementary feeding, problems with breastfeeding, breast engorgement, and practical aspects of breastfeeding. This questionnaire had tested for reliability and validity with the results of Cronbach's alpha test of 0.77 (> 0.7) (6). The breastfeeding observation help sheet assists counselors in assessing the mother's breastfeeding skills. These observation sheet are divided into six groups, namely the mother's condition, the baby's condition, the breast condition, the baby's position, the attachment of the baby, and the sucking of the baby (7)

Univariate analysis was conducted to measure the data sociodemographic, and the value of knowledge and skills for each pre-test and post-test. Bivariate analysis was performed by the Wilcoxon test to determine differences in knowledge and skills before and after counseling. A correlation test was also conducted to determine the relationship of maternal characteristics to changes in knowledge and skills.

ETHICAL CLEARANCE

This study was approved by the Research Ethics Committee, Faculty of Medicine Gadjah Mada University-DR. Sardjito General Hospital No. KE/FK/364/EC/2016.

RESULT

Table 1 shows the differences in knowledge before and after education through peer counseling. There are 6 respondents with knowledge results after lower education than before education, while 26 respondents have a better knowledge of prior education. Wilcoxon test results showed a p-value of 0.000. A p-value <0.05 indicates significant differences between prior knowledge of education with after education.

Table I. Knowledge of Breastfeeding Mothers Before and After Getting Peer Counseling (n = 33)

Variable	Median (Minimum-Maksimum)	Std. Deviation	p-value
Knowledge before peer counseling (n=33)	33 (13-40)	6,334	0,000
Knowledge after peer counseling (n=33)	37 (18-45)	5,815	

Wilcoxon Test, 6 subjects is decreased knowledge and 26 subjects are increasing

Table II shows the differences in skills before and after education through peer counseling. There is one respondent with the results after the educational skills are lower than before the education, 23 subjects have remained skills both before and after, and nine other respondents have a better knowledge of prior education. Wilcoxon test results showed a p-value of 0.012. A p-value <0.05 indicates significant differences between the prior skills education with after education.

Table II. Breastfeeding Mother Skills Before and After Getting Peer Counseling (n = 33)

Variable	Median (Minimum-Maksimum)	Std. Deviation	p-value
Skill before peer counseling (n=33)	12 (9-12)	1,128	0,012
Skill before peer counseling (n=33)	12 (9-12)	0,870	

Wilcoxon Test, 1 subject is decreased skill, 23 subjects are constantly, dan 9 subjects is increasing skill

2. Correlation Analysis between Mother's Characteristics with Knowledge and Skill

Table III shows the external variables that have a relationship with the knowledge of breastfeeding mothers of infants aged 0-6 months. External variables that have a relationship with the mother's knowledge are the availability of household assistants (0.016). No effect from external variables to changes of skills in breastfeeding mothers.

Table III. Correlation between Mother's Characteristics with Knowledge and Skills of Breastfeeding Mothers (n = 33)

Mother's Characteristics	Frekuensi	p-value	
		Knowl- edge	Skills
Mother's education:			
• Primary school/ equal	3		
• Junior high school/ equal	8		
• Senior high school/ equal	18	0,854	0,445
• Academic (D1/D2/ D3)	1		
• College	3		
Employment:			
• Agriculture	1		
• Private employee	6	0,926	0,132
• Housewife	26		
Income:			
• < Rp 1.500.000,00	30	0,264	0,063
• > Rp 1.500.000,00	3		
Availability household assistants:		0,016	0,201
• Yes	4		
• No	29		
Experiences of breastfeeding:			
• Yes	22	0,808	0,872
• No	11		
Duration of previous breast-feeding:		0,926	0,926
• Never	12		
• < 6 month	6		
• > 6 month	15		
Decision making for breast-feeding:		0,498	0,498
• During pregnancy	30		
• After birth	3		
Previous education about breastfeeding:		0,206	0,206
• Ever	20		
• Never yet	13		

DISCUSSION

Cangkringan, near Mount Merapi, was chosen as one of the research sites. The researchers chose Cangkringan because: 1) Cangkringan is the nearest region to Mount Merapi. 2) Cangkringan is prone to disasters such as volcanic eruptions and earthquakes, making the granting of exclusive breastfeeding interventions, hoping that the public can still maintain the optimal nutrition for her infant even in the midst of a disaster 3) There was a high prevalence of exclusive breastfeeding at 72.13% is still below than the national target of 80%. 4) In Cangkringan has never conducted studies on exclusive breastfeeding. Previous research supports the selection of research sites where women, infants, and breastfeeding mothers are unique individuals included in the preparation of disaster response groups (8). This problem is emphasized because data found in disaster-prone areas that breastfeeding rates are low and childbirth is poor in pregnant women. Groups of postpartum mothers in disaster-prone areas need appropriate and appropriate support and guidance, including the problem of breastfeeding practice in an emergency (9). The introduction of education programs and the provision of general information in Japan during the 2004 earthquake was a group that emphasized the importance of breastfeeding mothers after natural disasters (9).

The criteria for potential mothers as peer counselors are women who have successfully breastfed one baby for more than a year; mothers selected from the intervention area or close to the intervention area so that they can come at any time; peer counseling was trained for one week by the research team; have a desire to help other mothers in breastfeeding; peer counseling can provide at least 10 hours each week; have access to transportation to the intervention area; have not been trained by a breastfeeding counselor before; have a positive attitude to the success of breastfeeding (3,10–13). Peer counseling is provided by home visits and telephone calls. Researchers consider the busyness of the counselor. Peer counselors provide group support within the community or provide one-on-one support via telephone, or home, clinic, or hospital visits, and may also be via text message (3,4,12–15). Peer counselors provide education with home visits because it is considered that this method is effective and supported by the International Board Certified Lactation Consultants (IBCLC) (16). Another study stated that providing education through telephone calls is a cost-effective strategy to increase the quantity and duration of breastfeeding in low-income groups of mothers in America (17).

The results of statistical calculation using the Wilcoxon test for changes in knowledge indicate the median after being given education (37) is greater than the median value before education (33). The p-value indicates the results of 0.000 ($p < 0.05$) that showed significant

differences between prior knowledge of education with after education. Research that supports peer counseling on breastfeeding knowledge changes mentioned that after several home visits conducted by counselors, breastfeeding mothers feel the need for knowledge of breastfeeding has been conveyed all by peer counselors (18). Wilcoxon's test results demonstrate the skills change p-value of 0.012. A p-value < 0.05 indicates significant differences between the prior skills education with after education. While breastfeeding is a common practice in a community, the knowledge and practice of exclusive breastfeeding itself are still low. So that the necessary intervention to improve the knowledge and practice of exclusive breastfeeding to achieve the ultimate goal of the MDGs (19).

Counselors who come to visits or by telephone are friendly, and polite, can get to know each other more closely and intimately, and can exchange opinions. This is supported by previous research which states that women who provide counseling come to provide counseling in a friendly and relaxed manner so that the support is easily understood and felt by breastfeeding mothers. Breastfeeding mothers also claimed to be satisfied with the counselor's visit because they could discuss it with them (18).

Availability of assistant household influence changes in knowledge of breastfeeding mothers in Cangkringan. Previous research showed that the mother's education, mother's occupation as a housewife, availability of household assistant, and the decision to breastfeed during pregnancy affect the knowledge, attitudes, and barriers to breastfeeding in Arab women in Riyadh (20). High social support for breastfeeding can reduce the incidence of postpartum depression during the breastfeeding period so it can extend the duration of exclusive breastfeeding (21). The high exclusively breastfeeding mothers aged 30 years or older because the mother had a positive emotional and mental (22).

Other studies mention that the group of new mothers who had their first child in Melbourne, Australia showed as much as 37.4% of the mothers stop breastfeeding before six months. It is influenced by several factors, including maternal age, body mass index (BMI), maternal employment status, maternal education level, higher socioeconomic status, and the number of family members in one house (23). The number of mothers in this study as much as 63.6% have had previous breastfeeding experience because it already has more than one child. It supports mothers to have a positive attitude towards breastfeeding.

Mothers with low education will soon introduce complementary feeding for their baby, but instead in women with higher education (24). They will defer to introducing complementary foods. Research has been conducted in Cangkringan to show young maternal

education level is high enough among villagers, namely High School (SMA) as much as 54.5%, so the mothers there are still exclusively breastfed and has yet to introduce complementary foods. Mature maternal age (35-49 years) and mothers who have good knowledge about exclusive breastfeeding have a high prevalence of exclusive breastfeeding practices (25).

The results of the study also mention that the high economic status affects poor breastfeeding practices (24). That is because giving her formula milk is a symbol of their high economic status. Meanwhile, the research that has been conducted in Cangkringan obtained low family income (<Rp 1.500.000,00) as much as 90.9%. It also reinforces exclusive breastfeeding because it is more economical and it does not cost at all to buy formula.

CONCLUSION

Mothers' knowledge and skills in exclusive breastfeeding can be increased by peer counseling. Availability assistant households have a relationship with the mother's knowledge changes during peer counseling. The author suggests enabling breastfeeding counseling programs by involving communities in Cangkringan. Subsequent research can be focused on the relationship counselor's ability to provide counseling to how much information can be accepted by breastfeeding mothers.

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