

THE IMPACTS OF BREASTFEEDING COUNSELING BY KADER KESEHATAN (LAY HEALTH WORKERS) ON THE FIRST MONTH EXCLUSIVE BREAST FEEDING (E1) AMONG BREAST FEEDING WOMEN IN DARUL IMARAH SUB-DISTRICT

Nurlaili Ramli,¹Putri Santy¹

¹ Midwifery department of health polytechnic Kemenkes Aceh. Nurlaili.ramli@gmail.com

ABSTRACT

Background: The coverage of exclusive breastfeeding in Aceh Province is still low, with a median of 0.6 months (BPS & Macro International, 2007), while in Darul Imarah Sub-District, the figure is 0.5% (Aceh Besar District Health Office, 2011). The involvement of *kader kesehatan* (lay health workers) in the programs of maternal and child health is very effective in reducing morbidity and mortality through the promotion of breastfeeding practices.

Objective: To determine the impacts of counseling given by *kader kesehatan* (lay health workers) on the first month exclusive breastfeeding (E1) among breastfeeding women in Darul Imarah Sub-district.

Methods: This study was an experimental study with a controlled trial design. The subjects were the third trimester pregnant women in Darul Imarah Sub-district taken with two stage sampling technique. Sixteen women were selected for each the intervention group and the control group. The primary data collection was done by the health workers and enumerators to obtain data on exclusive breastfeeding done at birth, one week after birth and during 1 month after birth. Data analysis used Stat software program, chi-square test, and RR (95% CI).

RESULTS: The proportion of the first month exclusive breastfeeding was higher in the intervention group compared with that in the control group. The statistical analysis showed that the counseling given by the health workers influenced the provision of exclusive breastfeeding ($P = 0.01$; CI: 1.11 to 6.84).

Conclusion: The provision of breastfeeding counseling by the health workers influenced the success of exclusive breastfeeding (E1) in Darul Imarah Sub-district.

Keywords: breastfeeding counseling, health workers, exclusive breastfeeding

INTRODUCTION

Breastfeeding is a way of providing adequate nutrition for the newborn's growth and development. Colostrum administered at the first hours after birth is the perfect food for the newborn. Breastfeeding is subsequently given until the child is two years old. The Indonesian government changed the recommendation of exclusive breastfeeding from four months to six months in 2003.¹

Exclusive breastfeeding is given to newborns up to the age of 6 months and continued with supplement feeding.² The WHO and UNICEF recommended exclusive breastfeeding as an effort to decrease morbidity, mortality in infants and under-five children.¹ Exclusive breastfeeding can reduce the risk of acute and chronic diseases, including diarrhea, respiratory tract infections, urinary tract infections, otitis media and asthma. Shorter and less intensive breastfeeding period will

cause the baby to be less protected. The development of cognitive value for infants breastfed for 6 months or more will increase when compared to the infants who are never breastfed.³⁻⁴ Breastfeeding is also one of the factors that can prevent obesity in the baby's next life period.⁵ A research in 2005 found that 13 % of women stopped breastfeeding their babies in the first month due to the babies who were unable to be breastfed and the perceptions that the breast milk production was not enough to their babies.⁶ During the period before the milk was produced, the babies were given breast milk substitute, for example, water, tea, and honey until the breast milk came out.⁷⁻⁸

A survey conducted in groups of women in England and Wales with differences in social status showed that the prevalence of breastfeeding at birth was 71% and would decline to 54% at the first two weeks after

birth, 44% at six weeks and 28% at fourth month. This decreased prevalence caused disadvantage for mothers and infants as a result of the termination of breastfeeding practices faster than the time expected.⁹

The Indonesian government has set a policy of exclusive breastfeeding in the Decree of the Minister of Health of the Republic of Indonesia No. 450 / Menkes / SK / IV / 2004 and it has been amended by the Government Regulation No. 33 in 2012.¹⁰ However, the patterns and trends of breastfeeding in Indonesia are getting worse every year, the duration of breastfeeding becomes shorter and the weaned age of baby is sooner. Data of Indonesian Demographic and Health Survey (IDHS) in 1997 showed that the coverage of exclusive breastfeeding was 52% and in the 2002-2003 it decreased to 40% and decreased again to 32% in 2007. The figure was still lower than the figure worldwide that was 38% and lower than the target coverage of exclusive breastfeeding in Indonesia by 80%.¹¹ This suggests that the practice of exclusive breastfeeding be continuously decreasing caused by modernization lifestyle. This decline will negatively affect child morbidity and mortality, and other problems of maternal and child health will increasingly be faced.^{1,12}

This phenomenon requires a change of mindset on how to improve the factors that influence the practice of breastfeeding in Indonesia. The decisions of breastfeeding babies are influenced by factors of mothers and family. Appropriate support and direct advice can positively affect the initiation of breastfeeding and the sustainability of breastfeeding.¹³

The WHO publications and systematic review of breastfeeding promotion program involving communities have proven to increase breastfeeding compared to the promotion carried out by health professionals.¹⁴⁻¹⁶ Breastfeeding promotion and community-based support are one of the key components of a comprehensive program to improve the practice of breastfeeding.¹⁷

The involvement of Lay Health Workers (LHWs) in maternal and child health programs is very effective in reducing morbidity and mortality through the promotion of breastfeeding practices. Usually, LHWs only receive informal job training without a formal professional education but are often involved

whether getting paid or doing the job voluntarily.¹⁸ A research in the US showed that the counseling provided by the outreach health workers could improve knowledge and promote changes in health behavior in women from minority ethnic groups.¹⁹ In Indonesia, the outreach health workers are better known as *kader kesehatan* (lay health worker).²⁰ *Kader kesehatan* is local people selected and reviewed by the community to work voluntarily.²¹

Counseling is a process of assistance carried out by the counselor to the individual in order to solve a problem or optimize potential owned.²² The provision of breastfeeding counselors in health care facilities and public facilities is one of the responsibilities of the local government in an effort to increase the coverage of exclusive breastfeeding in community.¹⁰

A study using the outreach health workers showed that this had effectively enhanced the promotion of the improvement of exclusive breastfeeding for breastfeeding women.^{23-24,18} However, a Randomized control trial study showed that breastfeeding counselors' supports did not significantly increase the exclusive breastfeeding in the intervention group.²⁵

The average duration of breastfeeding practice in Indonesia is 20.7 months, while in Aceh Province the median of breastfeeding is 19.7 months and the median duration of exclusive breastfeeding is 0.6 months.¹ Exclusive breastfeeding in Aceh Province in 2010 was 4.30 percent²⁶ while in Aceh Besar District the exclusive breastfeeding was 1.1 percent and in Darul Imarah Sub-district it was 0.5%.²⁷

Such data showed that exclusive breastfeeding was still not in line with expectations; therefore, the researchers were challenged to conduct this research on the impacts of breastfeeding counseling by the *kader kesehatan* in improving exclusive breastfeeding for breastfeeding women in Darul Imarah Sub-district of Aceh Besar District. This study is expected to give consideration for the Health Office of Aceh Besar District for decision-making in an effort to increase coverage of exclusive breastfeeding.

RESEARCH METHODOLOGY

This was an experimental study with a controlled trial design, which compared an intervention to another intervention or by the comparison. The research saw the effect of

two kinds of intervention to the women so that there would be two groups of research subjects, each of which would receive different interventions.²⁸ Group A (intervention) received get a leaflet and breastfeeding counseling from the *kaderkesehatan* on exclusive breastfeeding and Group B (control group) only got a leaflet.

The study was conducted in DarulImarahSub-district on July 16 to October 15, 2012. DarulImarahSub-district has 32 villages and the chosen villages by purposive sampling technique as the intervention group were Lampeneuen, LampenerutGampong, Lamsidaya, Lamkawe, Deunong, KutaKarang, Leugeu, and Payaroh while the villages as the control group were Lamcot, Bayu, LamblangManyang, Lambheu, LamblangTrieng, Punie, Lamreung and Lamsidaya. The reason for choosing the location of this study was because the coverage of exclusive breastfeeding was low at 0.5%, compared with its coverage in the District (1.1%).

The population in this study was all third trimester pregnant women in DarulImarahSub-district that met the criteria for inclusion. The sampling was done by two stage sampling method, by modifying the purposive sampling and total sampling technique.²⁹ The sampling stages conducted were as follows: 1) the purposive sampling technique was based on the consideration that, from 32 villages in the Sub-district of DarulImarah, 16 villages were taken based on the low coverage of exclusive breastfeeding, the highest total of V4 and the same characteristics and 2) using the total population to determine the research subjects included in the intervention group and the control group.

The data collected were the primary data, i.e., data obtained directly from the field by spreading questionnaire containing questions on the respondents' characteristics. Breastfeeding counseling was conducted by a *kaderkesehatan* in the gestational age of ≥ 36 weeks, shortly after birth, when the baby was 1 week old and when baby was 1 month old. The exclusive breastfeeding data were obtained by direct interviews to the women shortly after birth, when the baby aged 1 week and 1 month. In the intervention group, observation 1, 2 and 3 was done by the *kaderkesehatan*, whereas for the control group, the data collection was done by enumerators

who had been trained on how to fill out the questionnaire.

The research instrument used in this study was a questionnaire. The variable of exclusive breastfeeding was measured by interviewing the women immediately after birth, 1 week and 1 month after birth using research instruments from the Community Nutrition and Research Laboratory of UGM.

The intervention in the intervention group was breastfeeding counseling and leaflets by cadres, while the control group was given only a leaflet by the *kaderkesehatan*. The counseling was given for 1 hour to the women before birth, with a due date estimation in July.

Before the *kaderkesehatan* provided counseling, they were given training on exclusive breastfeeding. The training was organized by the researchers in collaboration with Breastfeeding Counseling Facilitator Coach Team, Department of Midwifery, Aceh Health Polytechnic. Training activities were held for 3 days or 21 course hours based on implementation guidelines of breastfeeding counseling training and breastfeeding counseling facilitators.³⁰ The materials of the training were adjusted to the counseling training module for the participants.³¹

The training for the *kaderkesehatan* was carried out on July 16-18, 2012 attended by 8 people. The trained *kaderkesehatan* were from Lampeneuen, LampenerutGampong, Lamsidaya, Lamkawe, Deunong, KutaKarang, Leugeu, and Payaroh Village.

RESULTS AND DISCUSSION

The characteristics of *kaderkesehatan*

The number of *kaderkesehatan* used in this study was 8 people, coming from Lampeneuen, LampenerutGampong, Lamsidaya, Lamkawe, Deunong, KutaKarang, Leugeu, and Payaroh Village. Of 8 *kaderkesehatan*, 1 (8%) was 20 years old and 7 *kaderkesehatan* were 30-40 years old (92%). Half of the *kaderkesehatan* had higher education background and the other four graduated from high school.

The characteristics of the respondents

Research subjects in this study were 32 respondents consisting of 16 respondents in the intervention group and 16 respondents in the control group. The results of homogeneity test showed no difference in age, education,

and parity in both the intervention group and the control group with p value of > 0.05 .

The impacts of breastfeeding counseling by the *kaderkesehatan* on one month exclusive breastfeeding

The research was conducted from July 16 to October 15, 2012 to 16 villages in the working area of DarulImarah Health Center of Aceh Besar District. At the time of this research after the selection process, there were 32 pregnant women (16 in intervention group and 16 people in control group). The results showed a decrease in the frequency of exclusive breastfeeding between the intervention groups and the control group. There were changes in the frequency of exclusive breastfeeding from at birth to the baby was one month old. In the intervention and control groups, the frequency of breastfeeding shortly after birth was respectively 81.25% and 75% while the frequency of breastfeeding when the baby was one month old was respectively 68.75% and 25%.

The results of the data analysis on the impacts of breastfeeding counseling given by the *kaderkesehatan* on the first month exclusive breastfeeding showed that the intervention group gave exclusive breastfeeding almost 3 times higher than the control group (RR = 2.75 95% CI: 1.11 to 6.84). The statistical analysis showed the presence of differences in the proportion of the first month exclusive breastfeeding between the intervention group and the control group ($p < 0.05$). This proved that the intervention in the form of breastfeeding counseling given by the *kaderkesehatan* increased exclusive breastfeeding almost 3 times in the intervention group.

Discussion

The results of the statistical analysis showed that the independent variables were proved to be significantly to the first month exclusive breastfeeding (E1) among the breastfeeding women ($p < 0.01$). This study showed that breastfeeding counseling for the intervention group carried out by the *kaderkesehatan* could affect the first month exclusive breastfeeding by 2.75 times compared with the control group who were only given leaflets. Around 68.7% in the group that got leaflets and breastfeeding counseling gave exclusive breastfeeding to

their babies than those who were given only the leaflet, ie, 25%. This result was consistent with the literature review, indicating that the interventions made by the health workers/*kaderkesehatan* were 2.78 times more effectively to increase exclusive breastfeeding practices.¹⁸

A research in Congo showed that, the intervention group who received health promotion, 57.7% respondents gave exclusive breastfeeding compared to 2.7% in the control group who gave their babies exclusive breastfeeding. In addition, a research in Glasgow showed that the prevalence of breastfeeding was higher in the group given both counseling and leaflet compared to those who were given leaflet alone although statistically the results of the study were not significant.³² Support provided by counselors is most effective matter in increasing the duration of exclusive breastfeeding.¹⁶

Support given by a counselor functions as a process of giving aid done against individuals in order to solve a problem or to optimize her/his potential, which is called counseling.²² Breastfeeding counselling given by *kaderkesehatan* can make a woman continue exclusive breastfeeding up to the age of 6 months.²³ This study showed that 68.75% of women continued to provide exclusive breastfeeding to their babies up to the age of one month after being given counseling by the *kaderkesehatan*. The researchers of this study stated that the visits done by the *kaderkesehatan* to provide counseling on breastfeeding would make the women continue breastfeeding their babies, because they knew the difficulties or obstacles in the process of breastfeeding so that they were able to overcome problems that came up in accordance with the information provided by the *kaderkesehatan*.

Breastfeeding counseling should be given during pregnancy; thus, it is expected shortly after the birth, a woman can breastfeed immediately. Childbirth is the right time for the baby to get breast milk. Breast milk is a nutrient that is able to meet all the nutritional elements for the development of the baby to be healthy and intelligent children in the future. Exclusively breastfed infants will decrease gastrointestinal infections and atopic eczema at the age of 1 year.³⁴

The results of this study showed that in the intervention group there were 31.25% of

breastfeeding women who did not breastfeed their babies exclusively. This happened due to several factors, including the assumption that the baby was crying because of hunger so that the baby was given formula milk and the culture of the people of Aceh who fed their babies with banana to avoid the baby not to be fussy because of starvation. The percentage of prelacteal feeding was higher in the control group than in the intervention group, ie, 75% vs. 31.25%. Prelacteal food provided in both the intervention group and the control group was formula milk, honey and bananas. Exclusive breastfeeding was breastfeeding only without additives drinks and food such as formula milk, orange juice, honey, tea, water, bananas, papaya, milk porridge, biscuits, and rice porridge except medicines and vitamins if needed.³⁴

A research in China also mentioned that failure in exclusive breastfeeding was due to traditional beliefs that existed in China and early provision of formula feeding to the babies.³⁵ Substitutive food such as formula milk for a baby was given if there were barriers to breastfeeding, either because the baby refused to drink the milk or because the women's breast was ill.³⁶

The results of this study also showed a decrease in exclusive breastfeeding from birth to the baby was 1 month old in both the intervention group and the control group. The decrease in the first month exclusive breastfeeding was more common in the control group than in the intervention group. A research carried out in Germany also showed a decrease in exclusive breastfeeding; 90% of women gave exclusive breastfeeding shortly after birth and this declined to 44.7% at two months later.³⁷ We concluded that the decline in the practices of exclusive breastfeeding was due to the information that was not given repeatedly to the control group; leaflets were only given when the gestational age was ≥ 36 weeks. For the intervention group given leaflets and visited 3 times after birth, 68.75% were still exclusively breastfeeding their babies at the age of 1 month. This happened because the women always got information about the solution of problems that might occur during the process of breastfeeding as well as family that supported them to be able to breastfeed exclusively. The women who receive information about breastfeeding are

more interested and have a high confidence in breastfeeding their babies.³⁸

In this study there was still some shortages, among others, predisposing factors consisting of women's knowledge, beliefs, values, attitudes, beliefs and psychology that were not analyzed. Likewise, we also did not analyze the enabling and reinforcing factors that came from family. A qualitative approach was also not performed in this study, so that factors related to the success of breastfeeding were not studied in depth.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Practically and statistically there was an influence of breastfeeding counseling given by the *kader kesehatan* in the first month exclusive breastfeeding (E1) in Darul Imarah Sub-district and the proportion of the first month exclusive breastfeeding was higher in the intervention group that was given leaflets and counseling on breastfeeding than those who were given only leaflets.

Suggestion

Health Office of Aceh Besar District is suggested to empower the *kader kesehatan* in providing breastfeeding counseling in order to increase the coverage of exclusive breastfeeding in Darul Imarah Sub-district. Further research should examine other factors such as women's knowledge and education and should conduct a qualitative approach in order to gain more information about the main factors that influence the practices of exclusive breastfeeding.

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