

## Effect of Nutrition Counseling Knowledge and Attitude toward Mother Breast Feeding and Baby Growth in Sub Lubuk Pakam

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### Abstract

To run the program exclusive breast milk, nursing mothers should have a good knowledge. One way to gain knowledge is to give nutritional counseling. This study Aimed to influence nutritional counseling on exclusive breast milk and Nutritional Status of the knowledge and attitude of nursing mothers in the district health centers Lubuk Pakam. This research is a quasi experiment nonequivalent control group design. Research work carried out in the region district health centers Lubukpakam (treatment group) and PHC Tanjung Morawa (the control group). The treatment group was given nutritional counseling intervention for 3 months given as many as three sessions. The study was conducted in March 2016 to August 2016. The results Showed prior to the intervention of knowledge in both groups did not Differ ( $p=0.290$ ), after intervention were significantly different ( $p=0.000$ ). While the average weight gain in infants in the first months of 1.25 kg treatment group, the control group of 1.19 kg and the second month 1.44 in the intervention group and the control group 1 kg. Based paired tests conducted indicate that there is influence nutritional counseling on knowledge and attitudes in the intervention group.

**Keywords:** Knowledge, Attitude, Nutrition counseling, Growth

### Introduction

Infant nutritional status is determined starting from early pregnancy through breastfeeding. National Movement Acceleration Nutrition Improvement in Order Thousand Day One Life is very important in our efforts to create human resources Indonesia healthy, intelligent, and productive. The nutrition problem has long been the world's attention. The term first 1,000 days of life, which is 270 days during pregnancy and 730 days from birth until the age of 2 years? One program 1000 First Day of Life is giving exclusive breastfeeding in infants 0 months to 6 months. Exclusive breastfeeding is the only food that is best for babies, because it has the most complete nutritional composition for infant growth and development [1]. According to data from the National Health Survey (Susenas) in 2010, is known to as many as 33.6% of infants in Indonesia are getting exclusive breastfeeding. This means there are still about 2/3 of a baby in Indonesia are still not getting exclusive breastfeeding exclusive, so it is necessary to increase the exclusive breastfeeding campaign and encourage local governments and the private sector for support. There are several factors that lead to low coverage exclusive breastfeeding in Indonesia such as the dissemination of information among health care workers and people who are not optimal, which is only about 60% of people know information about breastfeeding and there are only about 40% of trained health workers who can provide counselling breastfeeding [2].

Exclusive breastfeeding granting to infants aged <6 months of globally reported less than 40%. Nationwide coverage breastfeeding for infants up to age 6 months fluctuated, i.e. 24.3% in 2008, then increased in 2009 to 34.3%, and decreased in 2010 to 33.6% [1]. Globally there has been a general decline in the practice of breastfeeding both of the amount and duration of the last few decades. Possible reasons for refusing to breastfeed, including a lack of trust that children get enough, increase the mother's work, the load demand which makes them to be separated from their babies for longer hours, decreased social support, discomfort in the breast-feeding in public, and the promotion of intense of commercial infant formula.

The results of rapid assessment Ministry of Health in 2011, found many government and private hospitals that receive sponsorship and gifts from formula companies, it is certainly weaken efforts to increase the success of exclusive breastfeeding coverage in Indonesia. Exclusive breastfeeding granting exclusive success nationally only 33.6%, and 35% according to the WHO Global Data Bank in 2012, so that the active role of the whole society are absolutely necessary to improve the success of the promotion of exclusive breast milk in Indonesia [3]. Exclusive breastfeeding granting prevalence in North Sumatra, according Riskesdas 37.6%, this suggests granting exclusive breastfeeding is still up 50% of the area of North Sumatra, while the prevalence of breast feeding only last 24 hours at age 0 months 52.7%, age 1 month 48.7%, 46.0% at 2 months, 3 months of age was 42.2%, 41.9% at 4 months, 5 months old 36.6%, and 30.2% at 6 months. Thus the prevalence of granting exclusive breastfeeding increased exclusive breastfeeding age of the baby decreased [4].

Most of Indonesia's population lives in villages and nearly 50% had low education. So that knowledge of mothers about the importance of exclusive breast milk is very minimal. Ignorance is the mother also affects the attitude of the mother in giving exclusive breast milk; therefore the knowledge of mothers on exclusive breast milk needs to be improved. Lack of knowledge of mothers about the benefits of exclusive breast milk and a false perception of the exclusive breastfeeding will affect the practice of the mother to give exclusive breast milk to the baby. Therefore, mothers should be appropriately informed about exclusive breastfeeding [5].

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Based on the background, the researchers want to investigate about “Effects of Nutrition Counselling on breastfeeding knowledge and attitudes about giving exclusive breast milk and infant nutritional status in the Region District Health Clinics Lubuk, Pakam.

### Methods

The study design is quasi-experimental with non-equivalent control group design. In the treatment group nutritional counselling, and attitudes and knowledge measured by a questionnaire. In the control group was not given nutritional counselling intervention. Research conducted at the sub-district Puskesmas, Lubuk, Pakam and sub-district Puskesmas, Tanjung, Morawa. The overall data collection was conducted in March 2016 to August 2016.

The population in this study are all mothers with babies 0 months to 3 months and breastfeeding exclusively living in sub-district Puskesmas Lubuk Pakam as the intervention group and sub-district Puskesmas, Tanjung, Morawa. The subjects of the study were taken with inclusion criteria are the mother did not work until 3 months postpartum, the baby who got exclusive breastfeeding, the baby born did not have the defect or congenital defect, agreed to be the respondent. While exclusion criteria are not willing to follow Early Breastfeeding Initiation (IMD) during labor, infant or postpartum suffer severe illness. The number of samples were 60 mothers divided into 2 groups: those who received intensive nutrition counselling were 30 mothers and control group who did not get nutrition counselling as many as 30 people sampling was done by screening in accordance with the criteria inclusion, respectively in the two groups were 30.

Counselling in the intervention group conducted after the sample has been prepared and fills out the form identity data. After that the sample pre-test questionnaires filling in the form of knowledge and attitude questions respectively amounted to 20 grains. Counselling is divided into three sessions. Intensive counselling session I made on day 1 through day 7. Session 2 reinforcement sessions and counselling is performed on days 8 to 14 of this session aims at strengthening on what the mother knew of researchers appropriate recommendations. Session 3 is an independent practice session conducted on 15 days to 28 days, mothers are given the opportunity to practice independently of the instruction is recommended. At this session the target is no longer visit except on days of 28 counsellors will be doing an assessment of the output counselling. Rate output in the form of counselling, post-test this is done to see if there are differences in knowledge and attitudes of nursing mothers after being given nutritional counselling.

Questionnaires knowledge and attitudes of each numbered 20 of the questions. Prior to this research, questionnaires were conducted validity and reliability of the 30 samples with the same inclusion criteria. Validity test results stating that the data is a question of attitude if  $r_{count} > r_{table}$  then declared valid questions, from 25 questions then obtained 20 valid questions, with a Cronbach alpha reliability test results  $0.698 > 0.600$  then the data is said to be reliable. Validity test results to the results obtained knowledge questions from 25 questions that 20 valid questions, with a Cronbach alpha reliability test results of  $0.625 > 0.600$  then the data is said to be reliable.

### Results

#### Characteristics of the study subjects

This study is followed by a sample of 30 samples in the treatment group, and 30 samples in the control group. Prior to the study sample were asked to fill a form of identity. Results of research for the treatment

group and the control characteristics of nursing mothers were alike. Tests of significance by the chi square test obtained value of  $p > 0.05$ . Based on this it is said that the characteristic of nursing mothers in the treatment group and the control group were not significantly different or the same (Table 1).

#### Difference score knowledge and attitudes before and after treatment in both groups

Average score of knowledge on both groups before and after intervention were statistically different. Knowledge in the treatment group before and after the intervention increased by 9.00 point, the increase was statistically significantly different ( $p = 0.000$ ). Knowledge in the control group before and after intervention decreased by 2.70 point, the decrease was statistically significantly different ( $p = 0.039$ ). Average score of attitude in both groups before and after intervention were statistically different. The attitude of the treatment group before and after the intervention increased by 9.06 points, the increase was statistically significantly different ( $p = 0.000$ ). The attitude in the control group before and after intervention decreased by 2.77 point, the decrease was statistically significantly different ( $p = 0.033$ ) (Table 2).

#### Comparison of Knowledge and Attitudes in the Second Group

##### Knowledge

Before giving the intervention to the subject, first the knowledge of exclusive breastfeeding is assessed. Table 3 describes the mean score of knowledge in both groups before the intervention is different.

Variable	Intervention group	Control group	p-value
Age (years)			0.623
• 20-24	4 (13.3%)	5 (16.7%)	
• 25-29	14 (46.7%)	17 (58.7%)	
• 30-34	7 (23.3%)	6 (20.0%)	
• 35-39	5 (16.7%)	2 (6.7%)	
Capital Education			0.753
• Junior	4 (13.3%)	6 (20.0%)	
• High School	22 (73.3%)	21 (70.0%)	
• College	4 (13.3%)	3 (10.0%)	0.18
Work			
• Employees	2 (6.7%)	7 (23.3%)	
• Housewife	18 (60.0%)	16 (53.35)	
• Self	10 (33.3%)	7 (23.3%)	

Table 1: Characteristics of the studied form of age, occupation, education and nursing mothers.

Group	Variable	Mean	N	Std. Deviation	P-value	
Treatment	Knowledge	Before	80.83	30	12.04	0
		After	89.83	30	5.79	
		Changes in	9	30	8.03	
	Attitude	Before	77.86	30	13.28	0
		After	86.83	30	5, 79	
		Changes in	9.06	30	9.87	
Control	Knowledge	Before	77.2	30	14.22	0.039
		After	74.5	30	11.98	
		Changes in	2.7	30	6.82	
	attitude	Before	76.33	30	13.43	0.033
		After	73.56	30	10.14	
		Changes	2.77	30	6.77	

P<0.05 (Paired Samples Test)

Table 2: Distribution of average score breastfeeding knowledge and attitude granted before and after intervention in two groups.

The treatment group had a mean score of 80.83 and the knowledge of the control group had a mean score of knowledge amounted to 77.20. Differences between the mean score of knowledge before the intervention in both groups did not differ significantly ( $p>0.05$ ).

After being given the intervention, the mean score of knowledge in the treatment group and the control group amounted to 89.93 74.50. Differences between the mean knowledge score after intervention in both groups differed significantly ( $p<0.05$ ) (Table 3).

#### Attitude

Before giving the intervention to the subject, first the knowledge of exclusive breastfeeding is assessed. The mean score of knowledge explains the attitude of the two groups before the intervention is different. The treatment group had a mean score of 77.86 and the attitude of the control group had a mean score of knowledge amounted to 76.33. Attitude differences between the mean scores did not differ significantly ( $p>0.05$ ). After being given the intervention, the mean score of attitude in the treatment group and the control group amounted to 86.93 and 73.57. Differences between the mean knowledge score after intervention in both groups differed significantly ( $p<0.05$ ) (Table 4).

#### Granting exclusive breastfeeding

Results showed subjects who received nutritional counseling more (83.3%) giving an exclusive breastfeeding. Table 5 shows the results of the analysis of relative risk means 1,563 subjects who received nutritional counseling will likely give exclusive breastfeeding 1.563 times than subjects who did not receive nutritional counseling. This study is comparable to studies conducted Ochola, et al. in Kenya, respondents who receive more intensive counseling that provides exclusive breastfeeding (23.9%) for 6 months than the group of respondents who received counseling semi-intensive (2%) [6]. The provision of exclusive breastfeeding a dedication of a mother to her child, there are many factors that cause the mother did not give Exclusive breastfeeding exclusive to their children include fatigue while breastfeeding, breast milk is not enough, the decision of the mother, the mother returned to work and others (Table 5) [7].

Variable	Group	Mean	SD	p-value
Before Intervention	Treatment	80.83	12.04	0.29
	Control	77.2	14.22	
After Intervention	Treatment	89.83	5.79	0.000
	Controls	74.5	11.98	

**Table 3:** Distribution comparison of knowledge on second group scores before and after intervention.

Variable	Group	Mean	SD	p-Value
Intervention	Treatment	77.86	13.28	0.658
	Control	76.33	13.43	
After Intervention	Treatment	86.93	7.57	0,000
	Controls	73.57	10.15	

**Table 4:** Distribution comparison of scores on the second group attitude before and after intervention.

Group	Exclusive breastfeeding granting		p-value-	RR(95% CI)
	Exclusive breastfeeding	Not Exclusive breastfeeding		
Treatment	25 (83.3%)	5 (16.7%)	0.026	1.563 (1.078; 2.264)
Control	16 (53.3%)	14 (46.7%)		

**Table 5:** Distribution granting exclusive breastfeeding.

#### Growth

Figure 1 describes the average growth rate of weight gain samples intervention group and the control group. If seen from the graph, the average weight gain is higher intervention group than the control group. In the first month the average increases in the intervention group of 1.25 kg, and in the second month at 1.44 kg. The average weight gain in the control group is the first month in the second month 1.19 kg to 1 kg.

#### Discussion

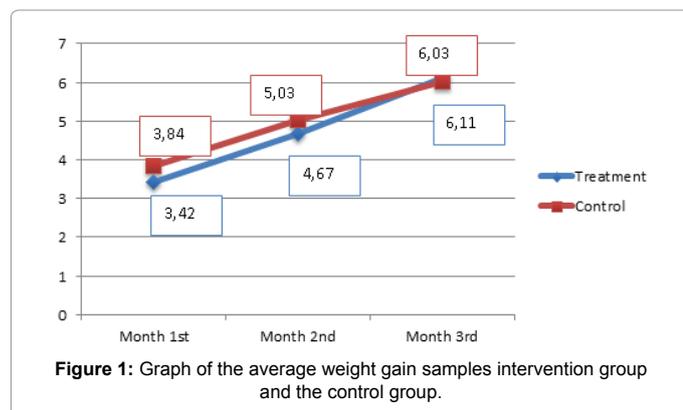
##### The level of knowledge

Question and pre-test knowledge by researchers who immediately gave questions to the baby's mother, after the researchers gave an explanation of the agreement to conduct nutritional counselling by visiting a sample home, this activity provided more intensive counselling. Samples that meet the inclusion criteria and approve activities to be carried out first to sign a consent form as proof of the willingness of information and media samples.

Counselling activity began with intensive sessions (7 days), and then the reinforcement (2 visits) performed on day 8 and day 14. In the practice sessions are no longer visited independent samples, the samples are given the opportunity to practice independently instructions given on exclusive breastfeeding counselling exclusively. Counselling is done directly by the researcher who was accompanied by skilled cadres Posyandu. Implementation of counselling is done by using a flip chart display, exclusive breastfeeding materials, discussions, as well as material on the attachment of the correct feeding position. At the beginning of counselling sample averages are still not sure about the correct position of the attachment of breastfeeding and still do not understand the significance of giving exclusive breast milk.

In the treatment group the average knowledge before and after an increase (9.00 point), this increase was statistically significant ( $p=0.000$ ). This study is in line with research Ambarwati, et al. in Semarang showed that the women who received intensive counselling had a higher level of knowledge than mothers who got regular counselling from midwife. Improved knowledge due to the treatment of nutritional education. Education with counselling methods that put mothers as subjects rather than as objects would put a great interest for counselling, it motivates the mother to find out more about the definition and benefits of early initiation of breastfeeding, breast care, feeding position and latch the baby, insufficient breastfeeding, benefits expressing milk, how to express the milk, storage and presentation of breast milk way, the dangers of formula [8]. Notoatmodjo say that health education can be done in various ways, namely education, training, counselling, consultation and through the media, all five of these methods has advantages and disadvantages [9].

The average knowledge in both groups (Table 4) before being given the intervention were not statistically different ( $p=0.290$ ), after the intervention given an average knowledge statistically different ( $p=0.000$ ). This study is in line with research Taufiqurahman, et al. after being given counselling assistance to mothers of babies 0-6 months in the group given the intervention and the control group there were significant differences ( $p=0.000$ ) [10]. After being given treatment interventions to increase knowledge, padakelompok by 9.0 points, while the control group decreased to 2.7 point. Research Fikawati states that increased exclusive breastfeeding knowledge is one of the key success factors in the granting of exclusive breastfeeding [11].



## Attitude

Counselling given leads to the attitude of mothers to practice exclusive breastfeeding administration. Statement as much as 20 grains contain about attitudes in the provision of exclusive breastfeeding, correct feeding position, as well as the use of breast milk when mothers cannot breastfeed directly. Samples answered questions attitudes in accordance with what was done. The resulting scores in the intervention group experienced an increase in both categories from 16 to 25 people, in contrast to the control group who experienced a decline in both categories until the number of 16 to 13 people. The score difference due to the absence of counselling gained by the control group. Research conducted by Abdullah and Ayubi expressed breastfeeding infants exclusively dealing with the attitude of the mother. Confidence to give exclusive breastfeeding is the main asset in the success of breastfeeding. The results were obtained respondents Exclusive breastfeeding has a supportive attitude as much as 66.7%, and that does not support as much as 33.3% [12].

The resulting scores in both groups before the intervention there were 16 samples with a good attitude category, it is judged on the application of behavioural mothers do. However, after the intervention group were counselled on score changes can be seen by 30% of samples. The increase in the total score is also based counselling has been given and then the sample was asked to independently practice exclusive breastfeeding. Application of the results of the counselling attitude can also be seen from the sample gives an exclusive breastfeeding baby or formula feeding. At the time of the study, researchers found that there are samples that give milk, accompanied by milk formula. This is because the sample is a working mom and admitted it is difficult to divide time between work and breastfeeding.

Attitudes cannot be seen, but can be interpreted in advance of behaviours that are closed. Attitudes are emotional reactions to social stimuli. According to Newcomb attitude is a readiness or willingness to act, which predisposes the action of behaviour, not the implementation of a particular motif. Attitude is a readiness to react to certain objects in the environment as an appreciation of the object [9]. Attitudes may change if given konselingan assistance to mothers, so that behaviour can provide exclusive breastfeeding [13].

## Provision exclusive breastfeeding and growth

Exclusive breastfeeding granting exclusive in both groups more in the treatment group amounted to 83.3% and in the control group by 53.3%, Research Ochola et al. states to strengthen mother gave exclusive breastfeeding need for intensive counselling at home, the research group receiving intensive counselling exclusively breastfed as much as 89%, while the group receiving semi intensive as much as 87% [6].

In the intervention group and the control group there are differences in weight gain every month. Differences in weight gain both groups are not too far away, the first month of the average increase in the intervention group of 1.25 kg and in the second at 1.44 kg, while the control group the average weight gain in the first month of 1.19 kg and the second month of 1 kg. The increase in infant weight in the treatment groups are still in the stage of normal, as well as research Hunsberger et al. that exclusive breastfeeding is a protective factor for overweight in infants [14]. When seen in infant growth period is what determines the success to provide nutrition to infants. While Khamzah reported normal growth patterns among infants fed breast milk with formula milk at 4 months to 6 months of age, babies fed formula gained weight which tends to be faster than breast-fed babies. After the first 6 months, breast-fed infants tend to be slimmer than the formula-fed infants [15]. Research conducted Saadia Ijaz et al. said the baby was a normal growth of about 17.6% do not get exclusive breast milk while the baby is growing abnormally not get exclusive breastfeeding much as 37.5% [16]. The growth of Exclusive breast-fed infants is normal, because the content of the nutrients found in breast milk has been meeting the needs of babies up to the age of 6 months [17].

## Conclusion

There are significant differences between the knowledge and attitude of the mother before the intervention and after intervention. Differences in scores of knowledge and attitude occurred because of interventions for the intervention group and the control group was not given.

## Recommendation

To further increase the knowledge of breastfeeding and improve the delivery of exclusive breastfeeding, the role of health professionals is necessary to support the success of exclusive breastfeeding exclusively in a region, the provision of information and health promotion will be able to improve the health of the region.

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