

THE EFFECT OF GIVING BREASTFEEDING ON BABY'S NUTRITIONAL STATUS: A COMPARATIVE STUDY IN NORTH BUTON DISTRICT, INDONESIA

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ABSTRACT

Background: Mother who giving exclusive breast feeding in North Buton District was less than others in Nourt Buton District. This study investigated the risk factors of giving exclusive breastfeeding and non-exclusive breastfeeding for 0-6 month old babies' nutritional status in Kulisusu primary health care in North Buton District.

Methods: This study was quantitative study which used a Case Control study design. Data analysis used independen t-test. This study recruited 82 mothers who had under 6 months old babies. This study was conducted in Kulisusu Primary Health Care area, in North Buton, Southeast Sulawesi province, Indonesia.

Result: The result found that there was significant differences of nutritional status between babies who gave exclusive breastfeeding and non-exclusive breastfeeding for 0-6 months old babies (p value =0,001 < 0,05).

Conclusion: This study suggested for health workers and community health volunteers to give motivate for mothers in order to give exclusive breastfeeding for their babies aged under 6 months. The primary health care must promote about benefits of exclusive breastfeeding for babies' health and their growth.

Key words: Exclusive, Breastfeeding, Baby, Nutrition, Status



INTRODUCTION

The presentage of giving breastfeeding tends to decreasing in Southeeast Sulawesi. In 2016, the percentage of mothers who gave breastfeeding was about 53,37%, compared to 47.43% in 2017 (1). North Buton was one of districts which had less numbers of mothers who gave breastfeeding for the babies compared to other district such as Konawe (66,67%), Kolaka (61,10%), South Konawe (61,87%), Bombana (66,39%), and North Kolaka district (67,62%). Some of sub-district in North Buton District still had low percentage of babies who were breastfeed by their mothers such as in Bone sub-district, namely about 40.58%. Compared to other sub-districts in North Buton, such as Kulisusu sub-district which had high percentage of mothers who gave breastmilk (2).

As we know breast milk is one of good food for a baby. Adequate breastmilk for babies will help the baby's growth. Breast milk also can protect the baby from infectious disease because of increasing baby's immunity (3). Giving breastfeeding for the baby also can increase mother's health condotion. The mothers can prevent from breast cancer or Carcinoma mamae (4, 5). However, there are still mothers who do not give exclusive breast milk for less than six months old baby. There are many factors for that condition. One of the factor is social class and culture (5). Other factor is family support, and mothers' knowledge and attitude. Another factor is the brand of formula milk (5). Because of breastfeeding is very important for baby' nutrition and health status, so this study investigates the effect of breast milk compared to formula milk for baby's nutritional status. This study was taken in North Buton.

METHOD

The pupose of study is to understand the differences of babies' nutritional status between babies who were given breast milk compared to babies who were given formula milk. This quantitative study used cross

sectional study design. This study was taken in Kulisusu Primary Health Care area in Kulisusu sub-district of North Buton district, Southeast Sulawesi in Indonesia. This study was conducted in May to August 2018. The study recruited 82 babies aged less than 6 months old and their mothers. The samples were obtained with simple random sampling technique. Data anlysis used independent samples t-test of statistical test. The significant effect used 0.05.

RESULT

There were 82 babies who were investigated for four months. The distribution of age of the respondents is shown in this table.

Table 1. Distribution of baby's age in Kulisusu Primary Health Care Area, North Buton District in 2018

Age of Baby (Month)	Number (n)	Percentage (%)
1	9	11.0
2	10	12.2
3	8	9.8
4	25	30.5
5	18	22.0
6	12	14.6
Total	82	100

The higher proportion of baby aged 4 months (30.5%), while the lower propostion of baby aged 3 months (9.8%). They comprised of male (42.7%) and female babies (57.3%) (Table 2).

Table 2. Distribution of sex of babies in The Study in 2018

Sex	Number (n)	Percentage (%)
Male	35	42,7
Female	47	57,3
Total	82	100



Based on the mother's age, the high proportion of age was mothers aged between 26-30 years old, namely 39% (32 mothers). The lower proportion of mother's age was 36-40 years old, namely 14 mothers (17.1%)

Table 3. Distribution of mother's age in this study in 2018

Mother's age	Number (n)	Percentage (%)
20-25	16	19,5
26-30	32	39,0
31-35	20	24,4
36-40	14	17,1
Total	82	100

Some of mothers passed from Senior high school, namely 52 mothers (63.4%). The lower proportion of mothers had Junior high school of their educational level, namely 12 mothers (14.6%) (see table 4).

Table 4. Distribution of mother's educational level in this study in 2018

Mother's education	Number (n)	Percentage (%)
Bachelor	18	22,0
Senior high school	52	63,4
Junior high school	12	14,6
Total	82	100

Some of the mother also did not have job (61%). They were wives and do domestic chores. However, there were around 18 mothers who worked as civil servants (22%) and traders (17.1) (table 5).

Based on the investigation, there was a significant difference of babies' nutritional status between babies who were given breast milk and formula milk (p value = 0.001 < 0.05).

Table 5. Distribution of Mother's Job in This Study in Kulisusu Subdistrict of North Buton District in 2018

Mother's Job	Number (n)	Percentage (%)
No job	50	61,0
Civil Servant	18	22,0
Trader	14	17,1
Total	82	100

Table 6. Comparison of Babies' Nutritional Status between Babies who were Given Breast Milk and Formula Milk in Kulisusu Sub-District in 2018

Nutritional Status	Formula Milk		Breast Milk		Total	
	n	%	n	%	n	%
Good	25	60,98	41	100	66	80,49
Worse	16	39,02	0	0	16	19,51
Total	41	100	41	100	82	100



Table 7. Independent t test of differences of babies' nutritional Status between babies who were given Breast milk and Formula Milk in Kulisusu Sub-District in 2018

Paired Differences	Mean	t	df	Sig. (2-tailed)*
Nutritional Status – Breast feeding	-0.305	-3.536	81	0.001

Note: *Independent sample t-test

DISCUSSION

The finding explains that breast milk gave significant effect for under 6 months old babies' nutritional status rather than formula milk. The babies who were given breast milk had good growth compared to those who were given formula milk. This finding shows that breast milk is one of good food for under 6 months old babies. The composition of nutrition in breast milk is still adequate for under 6 months old babies although they are not fed additional food. As we know that breast milk contains about 7% of carbohydrate, 0.9% of protein and 3.8% of fat (4). Compared to the formula milk compresses only 4.8% of carbohydrate, 3,4 % of protein and 3.7% of fat. Therefore, under 6 months old babies do not need additional food. The breast milk is still enough for under-6 months old babies' nutrition needs (3). Some of others studies stated that under 6 months old babies who were breastfed exclusively about 1.62 times bigger than those who were not given exclusive breastfeeding (6).

Adequate nutrition in under six months old babies is very important because the growth in this period will affect to whole individual health. Therefore, this period is called with the golden age (7). Moreover, breastfeeding has some benefits, including mother's psychology and family income. Intems of mother's psychology, breastfeeding can prevent or obstruct post

parturition. Also, breastfeeding can prevent breast cancer and delay pregnancy (8).

By increasing mother's health status, babies will get good rearing from their health mother. Thus, the babies will growth and become new health and strong generation. The next generation will have high productivity which affect to their income and wellbeing. By increasing the family income, the national income also will increase which affect to high quality of public services. This means, community health and wellbeing will be secure. As we know that income is one of determinants of nutritional status in children, especially in under five years old (9, 10). Therefore, breastfeeding is very important aspect, especially for under six months old babies.

Moreover, as we understand from this finding that about 61% mothers in this study did not have job. This means the mothers had enough time to nurture their babies. The mothers could be able to prepare breast milk anytime. Compared to working mothers, the mothers did not have enough time to give breast milk, except there are a breastfeeding or nursery room in their office.

CONCLUSION

As above explanation, some of strategies should be done to motivate mothers in order to give breast milk rather than formula milk. First of all, health promotor in Kulisusu Primary Health Care



give education or promotion about composition and benefit of breast milk for babies and the mothers. Innovation to take health promotion should be create and built by health workers. For example, health promotion can be conducted with community volunteers. Some of study about community volunteers states that they could help effectively health workers to engage their neighbors towards healthy life or healthy behaviour (11, 12). The effective strategies in the health education or promotion to mothers especially can increase their nutritional knowledge. Improving mothers' knowledge about nutrition, especially about breastfeeding can reduce prevalence in malnourished under five years old children (13). Furthermore, The government policy about nursery room must be implemented seriously. Implementation of this policy can increase the number of working mothers to give breast milk to their babies.

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