



Comparasion of babies weight between exclusive breastfeeding and formula milk in babies under 6 month

Desti Nataria¹, Lativa Sara²

¹⁻²STIKes Prima Nusantara Bukittinggi, Jl. Kusuma Bhakti No. 99, Bukittinggi, 26122, Indonesia

SUBMISSION TRACK

Recieved:
Final Revision:
Available Online:

KEYWORDS

Exclusive breastfeeding, formula milk, babies

CORRESPONDENCE

Phone Number: +62 822 8433 6441
E-mail: desti_nataria@yahoo.com

A B S T R A C T

Exclusive breastfeeding for 6 months in Indonesia is stipulated by the Decree of the Minister of Health Number 450 / SK / Menkes / VIII / 2004 Exclusive breastfeeding at this time as the best food for babies in the first six months of life has not been implemented properly. This is due to the lack of knowledge of mothers, lack of family support and low public awareness of the benefits of exclusive breastfeeding. In addition, it is also caused by a lack of support from health workers, health service facilities, and the influence of the promotion of baby food and beverage producers. The research objective was to determine the differences in body weight for babies aged 6 months in infants who were given exclusive breastfeeding and formula milk in the working area of the Tanjung Pati Community Health Center. The design of this study was a quantitative study with a documentation approach, where the data was taken from the data that had occurred in For respondents who have passed, this study traces the data on babies who are given exclusive breastfeeding and those who are given formula milk that are seen backward (retrospectively) about whether there is a difference in body weight of babies at 6 months of age who are given exclusive breastfeeding with formula milk. It is known that the mean weight of infants aged 6 months in infants given exclusive breastfeeding is 8294.12 grams with a standard deviation of 494,306 grams. Meanwhile, the average body weight of infants aged 6 months who consumed formula milk was 7829.41 grams with a standard deviation of 404,279. The results of the statistical test Independent t-test obtained p value = 0.004 (0.004 < 0.05). It was found that there was a difference in body weight for babies aged 6 months for babies who were given exclusive breastfeeding and formula milk in Nagari Solok Bio-Bio, the working area of the Tanjung Pati Public Health Center. It is recommended for people who have babies in Nagari Solok Bio-Bio in particular, and in the working area of the tanjung pati puskesmas to be more motivated to give their babies exclusive breastfeeding to babies aged less than 6 months and avoid formula milk and as long as breast milk is still sufficient for the baby's needs.

I. INTRODUCTION

According to the World Health Organization (WHO, 2015). Exclusive breastfeeding is an infant only receives breast milk from the mother or caregiver who is asked to provide breast milk from the mother, without the addition of fluids or other solid foods, except for syrups containing vitamins, mineral supplements or drugs. Breast milk is indeed the ideal food for babies, but not all mothers can provide breast milk to their babies, there are several conditions that cause mothers to only provide substitutes for breastmilk (formula milk).

Exclusive breastfeeding for 6 months in Indonesia is stipulated through the Decree of the Minister of Health Number 450 / SK / Menkes / VIII / 2004 and Government Regulation of the Republic of Indonesia Number 33 of 2012. Exclusive breastfeeding is currently the best food for babies in the first six months of their life yet well executed. This is due to the lack of knowledge of mothers, lack of family support and low public awareness of the benefits of exclusive breastfeeding. In addition, it is also caused by a lack of support from health workers, health service facilities, and the influence of the promotion of baby food and beverage producers (PPRI NO 33, 2012).

Based on Indonesia's health profile in 2014, the target of the exclusive breastfeeding program in 2014 was 80%, so that nationally, the coverage of exclusive breastfeeding of 52.3% has not reached the target. Of the 34 provinces in Indonesia, only one province managed to achieve the target, namely West Nusa Tenggara Province at 84.7%. West Sumatra Province occupies the fifth position with exclusive breastfeeding coverage of 73.6% (Indonesian Ministry of Health, 2015).

Based on data from the West Sumatra Health Office, the coverage of exclusive breastfeeding in West Sumatra Province in the last three years has tended to increase, where in 2013 the coverage of exclusive breastfeeding was 67.4% with a target of 75.0%, in 2014 the coverage was 72.5% with a target 80.0%, and coverage of exclusive breastfeeding in 2015 was 75.1% with a target of 83.0%. The coverage of exclusive breastfeeding in West Sumatra in 2017 for infants 0-5 months is around 52.8%, and for infants up to 6 months is around 37.6%. This figure is lower when compared to 2015 which was 75.1% (West Sumatra Health Office, 2015)

Infant mortality in West Sumatra Province as many as 702 people spread across 19 districts / cities with the highest contributor to death from the city of Padang as many as 96 people. Factors that influence the increase in the number of infant deaths in West Sumatra Province include low levels of knowledge, understanding, awareness and community compliance with standard pregnancy care, low levels of education and community economic status towards recommended pregnancy care, lack of family, community participation. and cross-program in maternal and

child health programs, not optimal health services for mothers, babies and toddlers as well as a lack of quality health services for mothers, babies and toddlers. The following shows the Infant Mortality of West Sumatra Province in 2015, West Pasaman 95 people, Kab. Solok 86 people, Dhamasraya 70 people, Sinjunjung 70 people, Pesisir Selatan 42 people, and Kab. 50 Cities 40 people, Pasaman 30 people, Bukittinggi 26 people, Agam 24 people, Pariaman 22 people, Tanah Datar 17 people, Solok Selatan 16 people, Mentawai 15 people, Padang Pariaman 12 people, Sawah Lunto 12 people, Payakumbuh 11 people, Padang length of 7 people, City of Solok 2 people. (West Sumatra Health Office, 2015)

One of the factors that play a role in this high IMR is the low coverage of exclusive breastfeeding, because without exclusive breastfeeding, babies are more susceptible to various diseases that increase their morbidity and mortality, while IMR in Indonesia in 2014 is due to the lack of breastfeeding for babies aged less than 6 months reached 54% in babies aged 2-3 months, 19% in babies aged 7-9 months, 13% babies under 2 months have been given formula milk and 1 in 3 babies aged 2-3 months have been given additional food (Center for Laktasi Indonesia , 2012). Exclusive breastfeeding is very helpful in reducing IMR, which is 13% (Roesli, 2010).

Based on this background, the researcher wanted to know how the comparison of the body weight of babies aged 6 months who combined exclusive breastfeeding with Forlamula milk in the work area of the Tanjung Pato health center in 2018.

II. METHODS

This research was cross sectional design in which data from independent variables and dependent variables are taken at the same time to find out the comparison of babies weight between exclusive breastfeeding and formula milk in the area of Solok Bio-Bio.. This research was conducted in Solok bio-bio Village on mei 8th to 30th june 2018.

The population in this study were all mothers who had babies aged six months until two years in the Solok Bio-bio village. Samples were taken using the Total Sampling method, which is the object studied by all populations as samples, 34 babies between 6 months to two years. Data collection tools used in this study were questionnaires. The analysis was done by univariate and bivariate using SPSS for Windows applications.

III. RESULT

3.1 Babies Weight in exclusive breastfeeding group

Table 1
Babies Weight mean on exclusive breastfeeding group

Variabel	n	%	Mean	Min-Max
Beastfeeding	17	100	8294,12	7500-9000
	17	100		

Based on Table 1 we know that from 17 babies with exclusive breastfeeding, the mean of babies weight is 8294.12 with minimum value 7500 and maximum value 9000gr

3.2 Babies Weight in formula milk group

Table 2
Babies Weight mean on formula milk group

Variabel	n	%	Mean	Min-Max
Formula milk	17	100	7829.41	7100-8300
	17	100		

Based on Table 2 we know that from 17 babies with formula milk, the mean of babies weight is 7829.41 with minimum value 7100 and maximum value 8300 gr

3.3 comparison of exclusive breastfeeding and formula milk on babies weight gain

Table 3
Comparison of exclusive breastfeeding and fomula milk on babies weight gain

Variabel	mean	SD	SE	P value
Exclusive breastfeeding	8294.12	494.306	119.887	0,004
Formula milk	7829.41	404.297	98.056	

Based on Table 3 show that the results of the independent t-test statistical test showed that the value of $p = 0.004$ ($0.004 < 0.05$) showed that there was a difference in body weight for babies aged 6 months in infants who were given exclusive breastfeeding and formula milk in Nagari Solok Bio-Bio, the working area of the Tanjung Pati Public Health Center.

IV. DISCUSSION

Breast milk is a liquid food specifically created to meet the needs of babies for various nutrients needed for growth and development in addition to meeting the baby's need for energy. Only by being breastfed without other food, babies are able to grow and develop properly until the age of 6 months. Characteristics of respondents based on age, age of infants in this study

were aged over 6 months and under 2 years. The baby's weight is seen when the baby is 6 months old because it can be immediately categorized as passing exclusive breastfeeding or not. Measurement of body weight for age can describe the current nutritional status of people and can detect obesity. Of the 17 exclusive breastfeeding respondents and 17 formula milk respondents in this study, body weight ranged from 7100 grams to 9000 grams, while based on the theory of the subsection of social development - pediatrics, the Child Health Sciences section, FKUI - RSCM (2001) in infants aged 6 months at male babies have an average body weight of 8.2 kg (8200 grams) so that the results of this study indicate variations in body weight that indicate the nutritional status of these babies.

From the results of research conducted, babies who are exclusively breastfed have better nutritional status than babies who are given formula milk. This is according to the theory of Acandra (2009) in Atika's (2016) study that breast milk is the most suitable food for babies because it has the highest nutritional value compared to baby food made by humans or milk derived from animals, such as cow's milk, buffalo milk. or goat's milk. Meanwhile, according to Prasetyono (2009) in Atika's (2016) research, breast milk contains high-quality nutrients that are useful for infant growth and development and contains the composition according to the needs of the baby. So babies who are exclusively breastfed tend to have a good nutritional status because it is due to adequate nutrition that the baby gets in breast milk. The effect of exclusive breastfeeding with the body weight of babies aged 6 months With the independent t-test used to determine the differences in body weight of infants aged 6 months who consumed exclusive breastfeeding and formula milk in the work area of the Tanjung pati health center in 2018, the results of the analysis were 17 respondents with the frequency distribution of body weight for babies aged 6 months who consumed exclusive breastfeeding obtained results, namely the minimum value is 7500 grams and the maximum is 9000 grams So the average body weight of infants who consume exclusive breastfeeding is 8294.12 grams.

According to theory, nutritional development of children is very influential on growth even in the womb. A child's weight gain is strongly influenced by the fact that the child gets adequate food intake, energy food needed by the child for basal metabolism, growth and activity. (IDAI, 2002 in Atiqa, 2016). The results of this study indicate that babies who are exclusively breastfed have better nutritional status than babies who are not exclusively breastfed. Although some have less or more nutritional status due to various factors. So that breast milk is the main, best and first natural food for babies who are given without food until the age of 6 months. Because breast milk contains immune, anti-infective and nutritional substances that babies need for optimal growth and development.

This shows that exclusive breastfeeding for babies can be different for their growth or the weight of the baby is better than babies who are formula milk. Because at the age of 0-6 months exclusive breastfeeding is needed, because the digestive system is not yet perfect, which breast milk is the best food for him. This means that this is in accordance with the theory in Atika's (2014) study, that giving food other than breast milk to babies aged <6 months, can cause allergies or the baby has a disease such as diarrhea, it occurs because the baby's digestion is not ready to accept food other than breast milk.

This research is also in accordance with the research conducted by Rani Ayu Hapsari (2012) with the title of research on differences in nutritional status of infants aged 0-6 months who are given exclusive breastfeeding and formula milk at BPS Suratini Bantul, Yogyakarta. The results of the study show that breast milk is the best food for babies.

V. CONCLUSION

Breast milk is a liquid food specifically created to meet the needs of babies for various nutrients needed for growth and development in addition to meeting the baby's need for energy. It is recommended for health workers to educate the mothers to give breastmilk to their babies, to increase their growth.

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