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## **Correlation Frequency and Duration of Breast Milk with Additional Weight Body Age 0-3 Months in the City of South Sulawesi Province**

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### **Abstract**

Exclusive Breast Milk Coverage based on PSG data of 2016 (25%) in Pare-pare city is not maximal yet. This is in accordance with those presented by midwives at Lompoe City Health Center of Pare-pare city that coverage of breastfed babies in the city is still not maximized. There are still many mothers who do not give exclusive breastfeeding to their babies or breastfeeding but also formula milk. In addition, when giving birth to many mothers who do not provide Early Breastfeeding Initiation for their babies due to exhausted mothers, and families also prohibit the process of Early Breastfeeding Initiation. <sup>3</sup> The purpose of this study was to study the relationship between frequency and duration of breastfeeding with the weight gain of infants aged 0-3 months in Pare-Pare city, South Sulawesi Province. Types of research is quantitative research using a longitudinal time approach (time-period approach). Sample of 65 People. Sampling using total sampling. Data collection is done through interview. The results showed that mothers still rely on breast milk for baby intake, mothers more often breastfeed in a day will increase the duration of breastfeeding and will affect the baby's weight gain. Most breastfeeding mothers with a longer duration than they should so make babies get the final milk rich in milk, which will help the baby grow more optimally. <sup>4</sup> Conclusion, there is a relationship between the frequency of breastfeeding and the duration of breastfeeding with the weight gain of infants aged 0-3 months.

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Recommendation; It is desirable for breastfeeding mothers to maintain the frequency and duration of breastfeeding to infants aged 0-3 months in order to increase the baby's weight.

**Keywords:** Mother's Milk; Weight Loss; Baby; Breastfeeding Mother.

## 1. Introduction

Good nutrition is one of the factors needed by pregnant and lactating mothers to avoid nutritional and health problems [1]. Supplementary feeding to meet the needs of mothers during pregnancy and supplementation of micronutrients such as tablets plus blood is essential to maximize the thousand-day period first life and avoid the mother from various nutritional problems one of them anemia problem [2]. The first thousand days of life or time between the conception and the second birthday of the child, is a unique opportunity period for the optimal foundation of health, growth, and neurological development [3]. The nutritional status of pregnant and lactating mothers, health status and good intake are important factors for the growth and development of the child's physical and cognitive, reducing the risk of illness in infants and mothers [4]. Breastfeeding or breast milk has previously been recommended for infants up to 6 months of age, according to the World Health Organization and the American Academy of Pediatrics. Breastfeeding is an ideal feeding method for infants from mothers, and has benefits for babies and mothers and it plays an important role in public health [5,6]. Breast milk is one type of food that satisfies all the elements of the baby's needs, whether physical, psychological, social, or spiritual. Breastfeeding is also a normal way to give babies the necessary nutrient intake in their healthy growth and developmental stages. Almost all mothers can breastfeed, provided that mothers can obtain information about breastfeeding and breastfeeding accurately, there is support from the family, and the health care system is also adequate [6]. Breastfeeding Mother to infant within an hour of birth is referred to as Early Breastfeeding Initiation (EBI), in the process it must be ensured that the infant receives the first colostrum or milk rich in protective substances. The best duration in doing the EBI is 1 hour or more or until the baby gets the mother's nipple. Various research results explain that contact between mother and infant after birth can increase the likelihood of exclusive breastfeeding as long as needed and can increase the duration of breastfeeding as a whole and also can reduce the risk of neonatal death [7]. As for the prevalence of EBI vary widely in each country with average 57.6% [8]. Based on the data of PSG (2017) for the city of Pare-pare found only 19.9% who get EBI  $\geq 1$  hour and 48.3% of infants who get Exclusive Breast Milk. This figure has not reached the target, it is also seen that the number of exclusive breastfeeding practices in Kota Pare-pare is very less compared to the practice of Exclusive Breastfeeding of South Sulawesi Province [9]. Breast milk and EBI for mothers and babies have such great benefits. Breastfeeding benefits include reducing or suppressing morbidity and mortality, reducing bleeding in postpartum mothers, and avoiding infants from infectious and allergic diseases. While the benefits of EBI is for babies to provide warmth during breastfeeding and reduce the risk of death due to hypothermia, and babies get harmless bacteria from mothers and make babies more immune to the bacteria in the environment. But there are still many mothers who do not want to give EBI and exclusive breastfeeding to their babies with a variety of reasons. It is precisely this that causes the low practice of exclusive breastfeeding [10,11]. If the baby is not breast-fed, then the above problems will arise. Mothers will be more susceptible to breast cancer, and infants are also susceptible to infectious diseases and hampered cognitive development. In addition, by not giving the baby breast milk it will increase the risk of mortality and

morbidity in infants [12]. Infant growth can also be disrupted if not exclusively breastfed. The baby's weight gain also does not increase maximally if breastfeeding fails. Management of breastfeeding is not good or not the maximum, will interfere with the baby's weight gain, and child nutrition is not good. The coverage of exclusive breastfeeding based on PSG data 2017 (48.3%) in Pare-pare city has not been maximized. This is in accordance with those presented by the midwife at the Lompoe city health center Pare-pare that coverage of breastfed babies in the city is still not maximized. There are still many mothers who do not give exclusive breastfeeding to their babies or breastfeeding but also formula milk. In addition, when giving birth to many mothers who do not provide EBI for their babies due to exhausted mothers, and families also prohibit the process of the EBI. The aim of this research is to study the relation of frequency and duration of breastfeeding with the weight of infants aged 0-3 months in pare-pare city of south Sulawesi province.

**2. Materials and Methods**

This research is a quantitative research using longitudinal time approach (time-period approach). Sample of 65 People. Method of sampling in this research using total sampling. The total sampling method is, the sampling technique where the number of samples equals the population. Data collection is done through interview. Analysis of data in the form of Univariate Analysis and Bivariate Analysis.

**3. Results**

**3.1. Frequency of breastfeeding relationships with baby weight gain**

Description of the frequency distribution of Breastfeeding with Baby Weight Growth as presented in table 1.

**Table 1:** Distribution of Breastfeeding Frequency with Infant Weight Growth in Pare-pare City 2018

	Baby's Weight Gain				N	%	p fisher
	On Match MWC		Rise But Not Match MWC				
	N	%	N	%			
Breastfeeding Frequency							
As recommended	29	55,8	23	44,2	52	100	
Not Match Recommended	0	0,0	13	100,0	13	100	0,000
Total	29	44,6	36	55,4	65	100,0	

Source: Primary Data, 2018

Based on table 1, 52 respondents who breastfed with the recommended frequency, 29 respondents (55.8%) of whom had infants with weight gain according to Minimum Weight Criteria (MWC) and 23 people (44.2%) who had babies with weight gain but not in accordance with MWC. Whereas from 13 respondents who breastfed with the frequency that is not as recommended, all respondents is 13 respondents (100.0%) have an increased

baby weight but not in accordance with the MWC. The result of analysis obtained through statistical test by using chi-square test obtained  $p$  value = 0.000 ( $p < 0,05$ ). Thus it can be concluded that there is a relation frequency of breastfeeding infant with infant weight gain.

**3.2. Relationship duration of breastfeeding with baby weight gain**

**Table 2:** Distribution of Breastfeeding Duration with Growth of Infant Weight as presented in Table 2.  
Distribution of Breast-Feeding Duration with Baby Weight Growth in Pare-Pare City 2018

Breastfeeding Duration	Baby's Weight Gain				N	%	p
	On Match MWC		Rise But Not Match MWC				
	N	%	N	%			
As recommended	26	65,0	14	35,0	40	100	
Not Match Recommended	3	12,0	22	88,0	25	100	0,000
Total	29	44,6	36	55,4	65	100,0	

Source: Primary Data, 2018

Based on table 2, there were 40 respondents who breastfed with the appropriate duration of recommendation, as many as 26 respondents (65.0%) baby weight rose according to WMC and 14 respondents (35.0%) baby weight rose but not according to MWC. Whereas from 25 respondents who breastfed with duration that was not in accordance with the suggestion, as many as 3 respondents (12.0%) whose baby weight rose according to WMC, and 22 respondents (88.0%) whose baby weight rose not according to MWC. Result of statistical test by using chi-square test obtained  $p$  value = 0,000 ( $p < 0,05$ ). Thus it can be concluded that there is a relation of the duration of breastfeeding the baby with the baby's weight gain.

**4. Discussion**

Each baby has their own needs and varies in terms of breastfeeding frequency and duration required. However, breastfeeding should not be scheduled but on demand because the baby will decide for themselves. A healthy baby will empty one mother's breast 5-7 minutes [13]. By giving breast milk without a schedule and in accordance with the wishes of the baby, it will help prevent problems that may arise. Breastfeeding activities in infants exclusively can also support the successful postponement of pregnancy [13]. Pursuant to result of research obtained by using chi-square test, obtained  $p$  value = 0,000 ( $p < 0,05$ ). And from these results it can be concluded that the frequency of breastfeeding has something to do with the baby's weight gain. This research is in line with research conducted by Sari and his colleagues (2017). In the research conducted in Karanganyar the results obtained that the frequency of breastfeeding in infants has a relationship with infant weight ( $p = 0.018$ ) [14]. But this is different from research conducted by Purwani and Darti (2015). This research conducted in Medan, using correlation test and got the result that there is no correlation between breastfeeding frequency and

infant weight ( $p = 0,815$ ) [15]. Results in the field showed that most mothers did continue to breastfeed their children despite being given prelacteal. Mother continues to stimulate her baby to continue breastfeeding so that her baby also get an important feed from breast milk. In a day the mother used to breastfeed her child more than 8 times or more than the recommended advice. As for the duration of breastfeeding, after tested by chi-square test obtained  $p$  value = 0.000 ( $p > 0.05$ ). It can be concluded that there is a relationship between the duration of breastfeeding and the baby's weight gain. Interviews obtained that the mothers often breastfeed their babies until the baby fell asleep. And the mothers say that her baby breastfed for more than 15 minutes even up to 60 minutes. Because the mother breast-feeding while lying until her baby fell asleep. Breastfeeding with long duration can directly help the baby's growth. Baby's weight increases maximally if breastfeeding duration is recommended for more than 15 minutes. Because the baby will get a fat-rich final milk to help the baby's growth and development. While the mother who duration breastfeeding for a while, because the mothers are busy with work in the office or work at home. Home work such as cooking, washing and taking care of other children also makes breastfeeding mothers do not match the recommended duration. This is in line with Sari's research and his colleagues (2017), that the duration of breastfeeding is related to infant weight ( $p = 0.001$ ) 14. Almtsier (2011) describes that the duration of breastfeeding is good for infants > 15 minutes and it is also supported by World Health Organization WHO (2011) said that the duration of breastfeeding in infants is very important for growth and development of babies, especially the growth so that babies can get the perfect nutrition. Perfect and recommended duration will get complete nutrition from breast milk because the baby will get early breast milk and a final breast milk useful for growth [16]. Limitations of this study are some of the respondents and informants have a limited time to provide detailed information at the time of the interview.

## **5. Conclusions and Recommendation**

Conclusion, there is a relationship between the frequency of breastfeeding and the duration of breastfeeding with the weight gain of infants aged 0-3 months. Recommendation; It is desirable for breastfeeding mothers to maintain the frequency and duration of breastfeeding to infants aged 0-3 months in order to increase the baby's weight.

## **Conflict of Interest**

Author declare no conflict interest.

## **References**

- [1] Zulaidah SH, Kandarina I, Hakimi M. Pengaruh pemberian makanan tambahan (PMT) pada ibu hamil terhadap berat lahir bayi. *J Gizi Klin Indones*. 2014;11(02):61-71.
- [2] UNICEF. The first 1,000 days of life: The Brain's Window of Opportunity. UNICEF Office of Research - Innocenti. <https://www.unicef-irc.org/article/958-the-first-1000-days-of-life-the-brains-window-of-opportunity.html>. Published 2016.
- [3] UNICEF. Infant and Young Child Feeding. Data UNICEF.

- [4] Rahmawati W, Wirawan NN, Wilujeng CS, et al. Gambaran Masalah Gizi pada 1000 HPK di Kota dan Kabupaten Malang, Indonesia. *Indones J Hum Nutr.* 2016;3(1):20-31. doi:10.21776/ub.ijhn.2016.003.Suplemen.3.
- [5] AAP. Breastfeeding. American Academy of Pediatrics. <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Breastfeeding/Pages/default.aspx>. Published 2017.
- [6] WHO. Breastfeeding. World Health Organization. <http://www.who.int/topics/breastfeeding/en/>. Published 2016.
- [7] WHO. Early Initiation of Breastfeeding to Promote Exclusive Breastfeeding. Action, E-Library of Evidence for Nutrition.
- [8] Takahashi K, Ganchimeg T, Ota E, et al. Prevalence of early initiation of breastfeeding and determinants of delayed initiation of breastfeeding: Secondary analysis of the WHO Global Survey. *Sci Rep.* 2017;7(February):1-10. doi:10.1038/srep44868.
- [9] Kemenkes. Penelitian Status Gizi (Nutritional Status of Indonesia 2017 Indonesian).; 2017. [http://www.kesmas.kemkes.go.id/assets/upload/dir\\_519d41d8cd98f00/files/Buku-Saku-Hasil-PSG-2016\\_842.pdf](http://www.kesmas.kemkes.go.id/assets/upload/dir_519d41d8cd98f00/files/Buku-Saku-Hasil-PSG-2016_842.pdf).
- [10] Sari SM, Idayanti T, Virgia V. Analisis Faktor Yang Berpengaruh Terhadap Pelaksanaan Inisiasi Menyusui Dini. *J Keperawatan dan Kebidanan.* 2016;(Imd):19-25.
- [11] Steve M, Aduke DC, Olugbenga OJ. Awareness of the Benefits and Practice of Exclusive Breastfeeding ( EBF ) among nursing mothers in Anyigba , North Central Nigeria. *World J Nutr Heal.* 2017;5(1):1-5. doi:10.12691/jnh-5-1-1.
- [12] Tadesse T, Mesfin F, Chane T. Prevalence and associated factors of non-exclusive breastfeeding of infants during the first six months in rural area of Sorro District, Southern Ethiopia: A cross-sectional study. *Int Breastfeed J.* 2016;11(1):1-8. doi:10.1186/s13006-016-0085-6.
- [13] Bahiyatun. Buku Ajar Asuhan Kebidanan Nifas Normal. Jakarta: EGC; 2009.
- [14] Dewi Kartika Sari, Didik Gunawan Tamtomo SA. Hubungan Teknik , Frekuensi , Durasi Menyusui dan Asupan Energi dengan Berat Badan Bayi Usia 1-6 Bulan di Puskesmas Tasikmadu Kabupaten Karanganyar Relations Techniques , Frequency , Duration of Breastfeeding and Energy Intake With Weight Babies in Age 1-. *Amerta Nutr.* 2017;1(1):1-13. doi:10.20473/amnt.v1.i1.2017.1-13.
- [15] Purwani T, Darti NA. Hubungan Antara Frekuensi, Durasi Menyusui Dengan Berat Badan Bayi Di Poliklinik Bersalin Mariani Medan. *Kampus USU Medan.* 2015;(3).
- [16] Almtsier S. Gizi Seimbang Dalam Daur Kehidupan. Jakarta: Gramedia Pustaka Utama; 2011.

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