



Herbal Tea of Torbangun Leaf and Exclusive Breastfeeding: Related Factors and Impact on the Duration of Breastfeeding

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ABSTRACT

Exclusive breastfeeding is a critical intervention in reducing infant mortality and addressing issues related to nutritional status. Utilizing lactagogues is one approach to enhance the secretion and production of breast milk. Torbangun leaves (Coleus amboinicus L.) contain phytochemical components such as alkaloids, sterols, triterpenoids, tannins, and flavonoids, which are known to enhance breast milk production, increase milk protein concentration, accelerate ovulation, improve protein digestion, and aid in breast milk production. This study aims to assess the efficacy of torbangun leaf herbal tea in influencing the duration and frequency of breastfeeding in the North Tapanuli Regency. The study included a sample size of 64 participants meeting the inclusion criteria, divided into treatment and control groups through purposive sampling. Data collection involved interviews using questionnaires and was analyzed using Chi-Square and One-Way ANOVA at a significance level of $\alpha = 5\%$. The findings revealed that maternal knowledge (p -value $0.01 < 0.05$) and a history of early initiation of breastfeeding (EIBF/IMD) (p -value $0.08 < 0.05$) were significantly associated with exclusive breastfeeding. A higher level of knowledge was associated with a 3.7-fold greater likelihood of achieving successful exclusive breastfeeding, while early initiation of breastfeeding increased the chances by 4.19 times. One Way ANOVA results demonstrated that the duration and frequency of breastfeeding were notably higher and more significant among mothers who used torbangun leaf herbal tea compared to those who did not ($p < 0.05$). Recommendations include the following: 1) Increasing maternal awareness regarding the significance of exclusive breastfeeding and the use of torbangun plants to support breast milk production. 2) Promoting active engagement by healthcare professionals in disseminating information about the importance of exclusive breastfeeding and the utilization of herbal plants to enhance the success of exclusive breastfeeding.

Keywords: Exclusive Breastfeeding, Herbal Tea, Torbangun

ABSTRAK

Pemberian ASI eksklusif merupakan intervensi penting dalam mengurangi angka kematian bayi dan mengatasi masalah terkait status gizi. Memanfaatkan laktagog adalah salah satu pendekatan untuk meningkatkan sekresi dan produksi ASI. Daun torbangun (Coleus amboinicus L.) mengandung komponen fitokimia seperti alkaloid, sterol, triterpenoid, tanin, dan flavonoid yang diketahui dapat meningkatkan produksi ASI, meningkatkan konsentrasi protein susu, mempercepat ovulasi, melancarkan pencernaan protein, dan melancarkan ASI produksi. Penelitian ini bertujuan untuk mengetahui efektivitas teh herbal daun torbangun terhadap durasi dan frekuensi menyusui ASI di Kabupaten Tapanuli Utara. Penelitian ini melibatkan sampel 64 peserta yang memenuhi kriteria inklusi, dibagi menjadi kelompok perlakuan dan kontrol melalui purposive sampling. Pengumpulan data dilakukan dengan wawancara menggunakan kuesioner dan dianalisis menggunakan Chi-Square dan One-Way ANOVA pada taraf signifikansi $\alpha = 5\%$. Hasil penelitian menunjukkan bahwa pengetahuan ibu (p -value $0,01 < 0,05$) dan riwayat inisiasi menyusui dini (IMD) (p -value $0,08 < 0,05$) berhubungan signifikan dengan pemberian ASI eksklusif. Tingkat pengetahuan yang lebih tinggi dikaitkan dengan keberhasilan pemberian ASI eksklusif sebesar 3,7 kali lipat, sedangkan IMD meningkatkan peluang sebesar 4,19 kali lipat. Hasil One Way ANOVA menunjukkan bahwa durasi dan frekuensi menyusui lebih tinggi dan signifikan pada ibu yang menggunakan teh herbal daun torbangun dibandingkan dengan ibu yang tidak menggunakan teh herbal ($p < 0,05$). Rekomendasi yang dapat diberikan antara lain: 1) Meningkatkan kesadaran ibu mengenai pentingnya ASI eksklusif dan pemanfaatan tanaman herbal torbangun untuk mendukung produksi ASI. 2) Mendorong keterlibatan aktif tenaga kesehatan dalam menyebarkan informasi tentang pentingnya ASI eksklusif dan pemanfaatan tanaman herbal torbangun sebagai salah satu upaya untuk meningkatkan produksi ASI dan mendukung keberhasilan ASI eksklusif.

Kata kunci: ASI Eksklusif, Teh Herbal, Torbangun

INTRODUCTION

Infections are the leading cause of infant mortality. In 2020, respiratory tract infections and gastroenteritis remained the primary issues, causing 73.9% of deaths due to pneumonia and 14.5% due to diarrhea (Kemenkes RI, 2021). Exclusive breastfeeding is the most crucial intervention to reduce infant mortality, prevent problems, and manage infant nutrition status (Hajeebhoy et al., 2014). Research by Penugonda A.J. et al. found that disease incidence was significantly lower in infants who received exclusive breastfeeding [OR = 0.27 (CI 0.12-0.64)] compared to those who did not receive exclusive breastfeeding (Penugonda et al., 2017). Additionally, breastfeeding can serve as natural contraception and reduce the risk of diabetes, breast cancer, and ovarian cancer in women (Victoria et al., 2016).

In Indonesia, only 1 out of 2 infants under 6 months of age receives exclusive breastfeeding, with an average duration of exclusive breastfeeding being only 3 months (WHO Indonesia, 2021). In 2021, in North Sumatra Province, there were 234,812 infants under 6 months old, of which only 90,207 (38.42%) received exclusive breastfeeding (Dinkes Provinsi Sumatera Utara, 2021). Meanwhile, the coverage of exclusive breastfeeding in North Tapanuli Regency in 2020 was 66.90%, with 2,898 out of 4,333 infants receiving exclusive breastfeeding (Dinas Kesehatan Kabupaten Taput, 2021).

The use of lactagogues is one way to increase breast milk secretion and production. One of the food plants that functions as a lactagogue is the torbangun plant (*Coleus amboinicus* L.) (Damanik et al., 2014). Torbangun is an herbal plant widely used and believed to enhance breast milk production and accelerate the involution process. Several previous studies have shown that torbangun leaves contain phytochemical components such as alkaloids, sterols, triterpenoids, tannins, and flavonoids that influence increased breast milk production, milk protein concentration, ovulation rate, protein digestion, and aid in breast milk production. Flavonoid compounds can also stimulate the release of prolactin (PRL) and growth hormone (GH), increase the expression of prolactin hormone receptor genes (PRLR) and growth hormone receptor genes (GHR), and stimulate breast development (Trini

Suryowati^{1*}, Rimbawan², Rizal Damanik², Maria Bintang³, 2015), (Lutfiani & Nasrulloh, 2023). Research by Prahesti et al. showed that torbangun leaf tea supplementation increased prolactin levels (significance 0.014 ($p < 0.05$)) and milk production (significance 0.046 ($p < 0.05$)) (Prahesti & Sholihah, 2020). However, there have been limited studies on the effectiveness of torbangun herbal tea in increasing breast milk production, infant weight, and breastfeeding duration, making further research essential.

Based on the initial survey results in the Siborong-borong and Sipoholon Community Health Centers' areas, there were 747 infants under 6 months old, and approximately 315 of them did not receive exclusive breastfeeding. Reasons cited by mothers for not providing exclusive breastfeeding included feeling that their breast milk production was insufficient, leading to a lack of confidence in exclusively breastfeeding their infants and resulting in failure to provide exclusive breastfeeding. (Dinas Kesehatan Kabupaten Taput, 2021).

Given the background information presented, the research questions addressed in this study are: "What is the effectiveness of torbangun leaf herbal tea on the process of providing exclusive breastfeeding to infants in their first 6 months of life?" and "What are the factors that impact the success of exclusive breastfeeding?"

METHOD

The research type was an analytical observational study with an experimental design using a post-test only control group design. This design was used to determine the effects of treatment on the intervention group by comparing it to the control group. The population in this study consists of all breastfeeding mothers with infants aged 0-6 months in the North Tapanuli Regency in 2023. The sample for this study includes breastfeeding mothers with infants aged 0-6 months in the working areas of the Siborong-borong Community Health Center and the Sipoholon Community Health Center in the North Tapanuli Regency. Based on inclusion criteria: postpartum and breastfeeding mothers, infants aged 0-6 months, both mother and infant in good health, and willing to participate in the study. The total sample size for both experimental groups (control and treatment) was 64 individuals.

Data collection was carried out as follows:

1. Reviewing the respondents' identities, including name, address, education, occupation, parity, delivery history, and history of exclusive breastfeeding. This data was obtained by the researcher during interviews.
2. Asking mothers to fill out an informed consent form and answer a questionnaire to assess their knowledge regarding exclusive breastfeeding and torbangun leaf herbal tea.
3. Dividing the respondents into two different treatment groups based on the time of delivery. The first 31 participants were placed in Group 1 (consuming torbangun leaf herbal tea), and the next 33 participants were placed in Group 2 (control) (no treatment). Each respondent then fills out a data sheet, and observations were made, including the torbangun leaf herbal tea consumption schedule, breastfeeding frequency, and duration each day.

The researcher used a questionnaire to assess the respondents' knowledge level. Observation sheets were provided to determine the provision of exclusive breastfeeding, breastfeeding frequency and duration, breastfeeding schedule, and torbangun herbal tea consumption. Subsequently, the

respondents were given the treatment, which was the consumption of torbangun leaf herbal tea. Data collection was conducted during six visits at each integrated health post (posyandu) session to assess breastfeeding duration and the success of exclusive breastfeeding.

Data analysis involves correlating independent variables, including knowledge and the history of exclusive breastfeeding, with the dependent variable, which was the provision of exclusive breastfeeding, using Chi-Square and V-Cramer analyses. Furthermore, to examine the differences in breastfeeding duration and frequency, One-way ANOVA tests were conducted with a significance level of <0.05 .

Ethical approval was obtained from the Research Ethics Committee of Poltekkes Kemenkes Medan in the form of Ethical Clearance (EC). Research subjects who agreed to participate in the study signed an informed consent form after being provided with the purpose and process of the research. Subjects have the right to refuse participation or exclude from the study.

RESULTS AND DISCUSSION

Relationship Between Knowledge Level and Early Initiative Breastfeeding (EIBF/IMD) History on Exclusive Breastfeeding in North Tapanuli Regency in 2023

The relationship between the Knowledge Level and EIB History on exclusive breastfeeding variable can be seen in the following table:

No	Category	Exclusive Breastfeeding				X^2	p	OR (95/CI)
		No		Yes				
		f	%	f	%			
1	High	20	74,0	16	43,2	6,029	<0,05	3,75 (95%)
2	Low	7	36,0	21	56,7			
Total		27	100,0	37	100,0			

Table 1. Relationship Between Knowledge Level and Exclusive Breastfeeding

Source: Analysis Result Chi-Square with SPSS

Table 1 illustrates that the majority of respondents who did not provide Exclusive Breastfeeding had a low level of knowledge (74.0%). On the other hand, respondents who practiced Exclusive Breastfeeding mostly possessed a high level of knowledge (56.7%). Based on the analysis results, it is evident that there is a significant statistical difference between the group not practicing Exclusive Breastfeeding and the group practicing Exclusive Breastfeeding concerning the level of knowledge ($p = 0.014$; $p < 0.05$).

These research findings indicate variations in mothers' practice of Exclusive Breastfeeding based on their knowledge level. The analysis results also reveal a significant relationship between the level of knowledge and Exclusive Breastfeeding ($p = 0.014$), with a strong association in the low knowledge category. This aligns with the V-Cramer coefficient values falling within the range of 0.20-0.399. The OR value of 3.7 indicates that a higher level of knowledge provides a 3.7 times greater likelihood of successfully practicing Exclusive Breastfeeding.

No	Category	Exclusive Breasfeeding				X ²	p	OR (95/CI)
		Not		Yes				
		f	%	f	%			
1	Not EIB	20	74,0	15	40,5	7,083	<0,05	4,190 (95%)
2	EIB	7	36,0	22	59,5			
Total		27	100,0	37	100,0			

Table 2. Relationship Between EIB History and Exclusive Breastfeeding

Source: Analysis Result Chi-Square with SPSS 24

Based on Table 2, it can be observed that among mothers who did not practice Exclusive Breastfeeding, the majority did not engage in Early Initiation of Breastfeeding (EIBF) (74.0%), while among mothers who practiced Exclusive Breastfeeding, the majority had a history of EIBF for their infants (59.5%).

According to the analysis results, there is a significant statistical difference between the group not practicing Exclusive Breastfeeding and the group practicing Exclusive Breastfeeding based on the history of EIBF ($p = 0.08$; <0.05). These research findings indicate variations in mothers providing Exclusive Breastfeeding for their infants based on the history of EIBF.

The analysis results also reveal a significant relationship between EIB and Exclusive Breastfeeding ($p=0.008$), with a strong association in the low EIB history category. This aligns with the V-Cramer coefficient values falling within the range of 0.20-0.399. The OR value of 4.19 indicates that a history of EIB provides a 4.19 times greater likelihood of successfully practicing Exclusive Breastfeeding.

Analysis of the Effectiveness of Torbangun Leaf Herbal Tea on the Duration and Quantity of Breastfeeding in North Tapanuli Regency in 2023

ANOVA analysis was used to determine the differences in the duration and quantity of breastfeeding among the experimental groups. Before conducting the ANOVA test, a data homogeneity test was performed using Levene Statistics, and the result obtained was $p = 0.618 > 0.05$, indicating that the data used in this study were homogenous. Subsequently, the ANOVA test was conducted, as presented in the following table:

The Effectiveness of Torbangun Leaf Herbal Tea on the Duration of Breastfeeding

The effectiveness of torbangun leaf herbal tea on the duration of breastfeeding in exclusive breastfeeding can be seen in the following table:

Group	N	Mean	Sum of square	F	df	p-value
Control	33	9,45	26,938	13,293	2	0.001
Interention	31	15,32				
Total	64					

Table 3. Difference in Breastfeeding Duration in the Experimental Group

Source: Anova Analysis Result with SPSS 24

In Table 3, the analysis reveals a calculated F-value of 13.293, compared to a critical F-value at $df\ 2 = 3.10$. Consequently, the calculated F-value exceeds the critical F-value, and the significance value (sig) of 0.001 is less than 0.05. As a result, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted, signifying a significant difference between the two experimental groups. Subsequently, a Post Hoc Test was conducted using the Least Square Difference (LSD) to assess the distinctions among each experimental group. The findings indicate that the average duration of

breastfeeding is statistically higher and significant in the group utilizing torbangun leaf herbal tea compared to the group that does not employ torbangun leaf herbal tea.

The Effectiveness of Torbangun Leaf Herbal Tea on the Quantity of Breastfeeding

The effectiveness of torbangun leaf herbal tea on the quantity of breastfeeding in exclusive breastfeeding can be seen in the following table:

Group	N	Mean	Sum of square	F	df	p-value
Control	33	1,39	12,843	39,292	2	0.000
Intervention		2,29				
Total	64					

Tabel 4. Difference in Breastfeeding Quantity in the Experimental Group

Source: Anova Analysis Result with SPSS 24

In Table 5.4, the analysis reveals a calculated F-value of 39.292, compared to a critical F-value at $df\ 2 = 3.10$. Consequently, the calculated F-value surpasses the critical F-value, and the significance value (sig) of 0.000 is less than 0.05. Therefore, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted, indicating a significant difference between the two experimental groups. Subsequently, a Post Hoc Test was conducted using the Least Square Difference (LSD) to assess the distinctions among each experimental group. The results demonstrate that the average quantity of breastfeeding is statistically higher and significant in the group utilizing torbangun leaf herbal tea compared to the group that does not employ torbangun leaf herbal tea.

DISCUSSION

Relationship between Knowledge Level and Exclusive Breastfeeding in North Tapanuli Regency in 2023

Based on the research results presented in Table 1, there was a statistically significant difference between the non-exclusive breastfeeding group and the exclusive breastfeeding group based on the level of knowledge in North Tapanuli Regency ($p = 0.014$; $p < 0.05$). The research findings indicated that most respondents who did not practice exclusive breastfeeding had a low level of knowledge (74.0%). On the other hand, the majority of respondents who practiced exclusive breastfeeding had a high/good level of knowledge (56.7%). From these research results, it can be observed that the majority of respondents were aware of exclusive breastfeeding. In general, the information provided by healthcare professionals was well-received by the community. However, individual attitudes and actions still played a role. Many mothers were merely aware of the concept without paying close attention to and fully understanding the information provided by midwives. Consequently, many mothers did not practice exclusive breastfeeding for their infants.

These research findings are in line with the theory that knowledge or cognition is a crucial domain in shaping an individual's actions. From experience and research, it has been proven that behavior based on knowledge is superior to behavior not grounded in knowledge (Notoadmojo, 2018). Accurate knowledge about exclusive breastfeeding can influence a mother's attitude and lead to further action, such as exclusively breastfeeding her baby. Breast milk is hygienic, cost-effective, easy to provide, and readily available for infants. It serves as the sole source of nutrition for infants during the first six months of life to ensure their health. Its dynamic composition meets the baby's nutritional needs optimally. Breast milk and plasma share the same ion concentration, eliminating the need for

additional fluids or supplementary food. Breast milk surpasses other infant foods like formula milk because it has lower protein content compared to cow's milk, thus reducing the strain on the baby's kidneys, and its proteins are easily digestible. Additionally, breast milk contains essential amino acids, saturated fatty acids, medium-chain triglycerides, and adequate cholesterol, meeting the baby's requirements.

These research findings also align with Theafillia et al.'s study on the Knowledge and Attitudes of Breastfeeding Mothers towards Exclusive Breastfeeding Behavior, where the chi-square statistical test showed a p-value of $0.002 > 0.05$, concluding that there was a relationship between maternal knowledge and the practice of exclusive breastfeeding (Theafillia GB et al., 2019). Breast milk is essential for infant growth; therefore, it is crucial for mothers to have an understanding of providing exclusive breastfeeding. Exclusive breastfeeding, according to the World Health Organization (WHO, 2018), means providing only breast milk without any other food or drink to the infant from birth until 6 months of age. After the baby turns 6 months old, nutritious solid and semi-solid foods appropriate for their growth and development can be introduced as complementary foods while continuing to breastfeed until the child is 2 years old. Providing breast milk to the baby has a significant impact on the baby's brain and physical growth in the future. Meanwhile, the benefits of breastfeeding for mothers include reducing postpartum trauma. In addition to stabilizing the mother's health and mental condition, exclusive breastfeeding can also minimize the risk of breast cancer. One of the triggers for breast cancer in breastfeeding mothers is the lack of exclusive breastfeeding for their babies. (Kemenkes RI, 2018)

Relationship between Early Initiation of Breastfeeding (EIB) History and Exclusive Breastfeeding in North Tapanuli Regency in 2023

The relationship between the history of Early Initiation of Breastfeeding (EIBF) and exclusive breastfeeding, as shown in Table 5.1, indicated that the majority of mothers who did not practice exclusive breastfeeding had not initiated EIBF when their babies were born (74.0%), while most mothers who practiced exclusive breastfeeding had initiated EIBF for their babies (59.5%). Based on the analysis results, it was found that there was a statistically significant difference between the non-exclusive breastfeeding group and the exclusive breastfeeding group according to the history of EIBF ($p = 0.08$; < 0.05). This was because mothers who initiated breastfeeding early were more likely to implement exclusive breastfeeding and breastfeed for a longer duration. Babies who did not receive EIBF after birth were typically introduced to complementary foods too early, such as formula milk, honey, sugar water, bananas, and other items commonly used in the community. The persistence of mothers not providing EIBF was attributed to their limited knowledge and awareness of the importance of EIBF and incorrect breast care practices, resulting in inverted nipples that prevented them from breastfeeding their babies exclusively for the recommended 6 months.

The OR value of 4.19 indicated that EIBF could increase the chances of successfully practicing exclusive breastfeeding by 4.19 times. This research findings were consistent with those of Ekaristi et al.'s study, which found a significant relationship between Early Initiation of Breastfeeding (EIBF) and exclusive breastfeeding in Manado City ($p = 0.014$) (Ekaristi et al., 2017). Early Initiation of Breastfeeding (EIBF) is typically performed within 30 minutes to 1 hour after the baby's birth, involving placing the baby skin-to-skin with the mother. Skin-to-skin contact between the baby and the mother provides comfort and enhances the bond of love between them. The purpose of this practice is also to boost the baby's immune system because during EIBF, the baby ingests beneficial

bacteria from the mother's skin. In addition to strengthening the mother-baby bond, EIBF can increase the likelihood of successful breastfeeding and generally extend the duration of breastfeeding (Risa, 2015).

Effectiveness of Torbangun Leaf Herbal Tea on the Duration of Breastfeeding in North Tapanuli Regency in 2023

Based on the research results in Table 3, it is shown that there was a significant difference between the two experimental groups (F value 13.293 and sig 0.001 < 0.05). The statistically higher and significant average duration of breastfeeding was observed in the group using torbangun leaf herbal tea compared to the group not using torbangun leaf herbal tea. In this study, the torbangun leaf treatment given to respondents was in the form of brewed tea and was administered three times a day.

The duration of breastfeeding was related to the presence of the prolactin reflex, which is an important lactogenic hormone for initiating and maintaining breast milk secretion. The baby's sucking stimulus sent a signal to the hypothalamus, which stimulated the anterior pituitary gland to release prolactin, a hormone that enhanced breast milk production by mammary gland alveolar cells. The amount of prolactin secreted and the amount of breast milk produced were related to the intensity, frequency, and duration of the baby's sucking. (WHO, 2018)

Various studies have shown that several food substances in Indonesia have lactogenic properties. Utilizing and developing food plants with lactogenic properties can be one strategy to address the failure of exclusive breastfeeding due to low breast milk secretion and production (Lutfiani & Nasrulloh, 2023). In breastfeeding mothers with high prolactin levels, there is an increase in milk production and volume. Prolactin levels remain high in breastfeeding mothers because this hormone is essential for stimulating mammary glands to produce breast milk. These glands are stimulated by prolactin to produce breast milk so that it's ready when the baby breastfeeds. By breastfeeding their baby, the prolactin hormone in the mother's body works optimally. (Kemenkes RI, 2018).

The torbangun plant (*Coleus amboinicus* Lour) is one of the herbal food plants with lactogenic properties, capable of increasing maternal milk secretion and production. This plant contains various types of flavonoids such as quercetin, apigenin, luteolin, salvigenin, and genkwanin. Therefore, torbangun leaves have great potential to be used as one of the ingredients in the development of functional supplementary food products for breastfeeding mothers. The use of lactagogues is one way to increase the rate of milk secretion and production, thus extending the duration of breastfeeding (Ekaristi et al., 2017).

According to the WHO, the duration of breastfeeding has an impact on a baby's growth. This is because the baby receives complete nutrition when they receive both foremilk (early breast milk) and hindmilk (later breast milk) through breastfeeding. Babies who breastfeed for too short a time mainly receive foremilk and do not reach the hindmilk, resulting in suboptimal nutrition. If this condition occurs frequently, it can put the baby at risk of malnutrition and poor nutrition (WHO, 2018)

This research is consistent with studies by various experts. For example, Damanik et al. found that providing torbangun leaf soup to breastfeeding mothers for 14 days resulted in a 47.4% increase in breast milk volume (Damanik et al., 2014). Another study by Prahesti et al. showed that

supplementation with torbangun leaf (*Coleus Amboinicus* L) increased prolactin levels ($p = 0.014$ ($p < 0.05$)) and breast milk production (significance 0.046 ($p < 0.05$)) (Prahesti & Sholihah, 2020). A study by Nasution in 2022 demonstrated that torbangun leaf soup supplementation increased the consumption of micro-nutrients among research subjects, surpassing the recommended dietary intake (RDI). This study showed that torbangun leaf soup could improve the micro-nutrient status of breastfeeding mothers (Nasution et al., 2022). A similar study conducted by Lutfiani in 2023 proved that torbangun leaves could increase breast milk production by up to 34.8% (Lutfiani & Nasrulloh, 2023). Based on these research findings, torbangun leaves showed great promise as a supplement for breastfeeding mothers.

Effectiveness of Torbangun Leaf Herbal Tea on the Quantity of Breast Milk in North Tapanuli Regency in 2023

The results of the research analysis in Table 4 indicate that a significant difference existed between the two experimental groups (F value 39.292; $p < 0.05$). As a result, the average quantity of breastfeeding statistically appeared higher and significant in the group that used torbangun leaf herbal tea compared to the group that did not use torbangun leaf herbal tea.

According to the Indonesian Pediatric Society (IDAI), the more frequently a baby is breastfed, the more the mother's breasts are stimulated to produce breast milk. When a baby is breastfed frequently, the production of breast milk becomes smoother, and the baby's needs are met through breast milk. A well-fed baby exhibits signs of satisfaction after nursing, enjoys restful sleep, cries less, appears healthy, and typically experiences an average weight gain of 500 grams per month. The recommended frequency for breastfeeding a baby is 8-12 times a day, with the next breastfeeding session occurring approximately every one and a half to two hours (Indonesia), 2014).

This research finds support in Lubis et al.'s study, which establishes a statistically significant relationship between breastfeeding frequency and infant nutrition status ($p < 0.05$) (Lubis & Asih Setiarini, 2022). More frequent breastfeeding provides more optimal nutrition and prevents the baby's stomach from remaining empty, ensuring continuous digestion of the necessary nutrients for growth. Breastfeeding frequency also plays a crucial role in maintaining smooth breast milk production. Previous research demonstrated that a good breastfeeding frequency increased the likelihood of having a smooth breast milk production by 2.438 times compared to poor breastfeeding frequency. Inadequate breast milk production can be one of the reasons why mothers may struggle to exclusively breastfeed their infants (Angriani, 2018).

LIMITATION OF THE STUDY

It is important to note that there are limitations to this research. One limitation is that the data collected through questionnaires may not always accurately reflect the actual situation. This is due to varying levels of understanding among respondents and potential honesty issues when filling out the questionnaire.

CONCLUSIONS AND SUGGESTIONS

The provision of Exclusive Breastfeeding is statistically influenced by maternal knowledge and the history of Early Initiation of Breastfeeding (EIBF). There are differences in the duration and quantity among breastfeeding mothers who consume torbangun leaf herbal tea. Therefore, it can be stated that torbangun leaf herbal tea can be utilized as one of the efforts to increase breast milk production in support of the success of Exclusive Breastfeeding.

Acknowledgment

The author expresses gratitude towards all entities involved in assisting with this research project, with special recognition given to the Ministry of Health for funding it through the 2023 Research Grant Program.

ETHICAL CONSIDERATIONS

Funding Statement.

This research was funded by the Medan Ministry of Health Polytechnic by Decree Number: LB.01.02/01/0696/2023 concerning the Determination of Research and Development Modeling Schemes for Beginners Who Have Passed the Selection and Received Financial Assistance for the 2023 Fiscal Year

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