

Breastfeeding Knowledge and Colostrum Provision at South Tapanuli Regional Hospital

Rya Anastasya Siregar¹, Novita Sari Batubara¹, Rizka Heriansyah¹, Tapi Endang Fauziah Lubis¹
D-III Midwifery Study Program, Universitas Aufa Royhan Padangsidimpuan, Indonesia

Article Info

Article history:

Received June 29, 2024

Revised July 28, 2024

Accepted July 31, 2024

Corresponding Author:

Rya Anastasya Siregar
D-III Midwifery Study
Program, Universitas Aufa
Royhan, Padangsidimpuan,
Indonesia
Email:
ryaanastasya3@gmail.com

ABSTRACT

Colostrum is needed by newborns as an early nutrient that affects the development and growth of babies, besides colostrum also plays a role in the initial formation of the baby's immune system. The purpose of this study was to determine the relationship between the level of knowledge of breastfeeding mothers and the provision of first breast milk (colostrum) in the midwifery room at the South Tapanuli District Hospital in 2022. The sample in this study amounted to 45 people with total sampling technique. Data analysis used univariate and bivariate. The results showed that there was a significant relationship between knowledge of breastfeeding mothers and the provision of first breast milk (colostrum) in the obstetrics room of the South Tapanuli District Hospital as indicated by the Spearman correlation test value, the value of $r = 0.000$ was obtained. The results of this study are to increase the knowledge of breastfeeding mothers about the first breastfeeding (colostrum).

Keywords: Relationship, Knowledge, Colostrum

This article is licensed under a Creative Commons Attribution 4.0 International License.



1. INTRODUCTION

Providing breast milk (ASI) according to *the World Health Organization* (WHO) is breastfeeding the baby as early as possible within the first hour after birth, giving colostrum and giving exclusive breast milk for the first 6 months and continuing until the age of 2 years or more. After the mother gives birth to the baby, the mother's breast milk will usually come out by itself. The first breast milk that comes out is usually thicker and yellowish in color, we can call this breast milk colostrum. This colostrum is really needed by newborn babies as initial nutrition which influences the development and growth of the baby, apart from that, colostrum also plays a role in the initial formation of the baby's immune system. However, mothers often lack information about the benefits of colostrum, so they do not know how important colostrum is for their babies [12].

The government supports the WHO and *United Nations* (UNICEF) policy of providing breast milk within the first hour of birth as a life-saving measure because early breastfeeding can save 22% of babies who die before the age of one month. Breastfeeding in the first hour of life which begins with skin-to-skin contact between mother and baby is stated as a global indicator. Breastfeeding in the first hour of life will support the success of giving colostrum to babies [2].

The World Health Organization (WHO) recommends that all babies need to receive colostrum to fight infections which is estimated to save one million babies' lives. More than 90% of mothers remove colostrum and provide early solid food. The removal of colostrum causes neonate mortality of 30.56%, approximately 12% of the IMR [3].

Various obstacles that cause failure in giving colostrum include maternal knowledge, culture in the community and lack of information from health workers in promoting the importance of giving colostrum [4].

Colostrum is consumed by the baby before actual breast milk. There are higher levels of white blood cells and antibodies in colostrum than mature milk. In the first two weeks after giving birth, colostrum slowly disappears and is replaced by high amounts. So exclusive breastfeeding begins with mature breast milk [5].

Breast milk is rich in antibodies (colostrum) which is useful for the body's immune system. The content of breast milk during the first six months is the main nutrition and is suitable for babies which can be useful for killing germs in colostrum and can reduce the risk of death in babies (Ministry of Health of the Republic of Indonesia, 2019). Based on data from the Directorate General Public Health, exclusive breastfeeding coverage in Indonesia is 61.33%, where the highest percentage is in NTB Province at 87.35% and the lowest is in Papua Province at 15.32%. The Ministry of Health has set a target for exclusive breastfeeding coverage by 2017 of 80%. However, in Indonesia, mothers who provide exclusive breastfeeding are still around 61.33%. Especially in rural areas, we often find that giving colostrum is often ignored because of a lack of knowledge about colostrum. The results of the study showed that mothers gave formula milk on the first or second day before breast milk was given, while 62.6% avoided colostrum [4].

Based on the Health Profile of North Sumatra Province, the target of giving first breast milk (colostrum) in the work area of community health centers in 2017 was 80% with an achievement of 43.23%. In the Base Siata village of 11 hamlets, in 2017 the target was 200 babies with an achievement of 16 babies (8%), in 2018 the target was 248 babies with an achievement of 14 babies (6%). Proving that there are still many mothers who do not give their babies first breast milk (Colostrum) (North Sumatra Health Office, 2018). Research objectives: The aim of this research is to determine the relationship between the level of knowledge of breastfeeding mothers and the provision of first breast milk (colostrum) in the room.

2. RESEARCH METHODS

This research uses a descriptive correlation research design with a *cross-sectional approach*. This research was carried out in the midwifery room of the South Tapanuli District Hospital from November 2021 until completion. The sampling technique in this study was *a total sampling* of a population of less than 100. So the number of samples in this study was 45 breastfeeding mothers. The data analysis method used in this research is the che square test with a significance level of 90% with a significance value of 5%. If the p value < a ($p < 0.05$) means there is a significant relationship between the two variables studied, H_a is accepted. If the p value > a ($p > 0.05$) means there is no significant relationship between the two variables studied, H_a is rejected.

3. RESEARCH RESULT AND DISCUSSIONS

Results

Table 1. Distribution of Respondents Based on Age

Variable	f	%
Age		
< 20 yrs	1	2.2
20-35 yrs	39	86.7
>35 yrs	5	11.1
Total	45	100

Based on Table 1, the majority of respondents in this study were 20-35 years old, 39 people (86.7%).

Table 2. Distribution of Respondents Based on Education

Variable	f	%
Type Education		
JUNIOR HIGH SCHOOL	6	13.3
SENIOR HIGH SCHOOL	26	57.8
D3	4	17.7
BACHELOR	8	
Total	45	100

Based on table 2, the majority of respondents in this study were high school (26 people (57.8%) and 4 people had a D3 education (8.8%).

Table 3. Distribution Respondent Based on Work

Variable	f	%
Work		
Farmer	10	22.2
civil servants	10	22.2
Self-employed	18	15.6
IRT		40.0
Total	45	100

Based on table 3, the largest number of respondents in this study were housewives (40.0%) and 7 people (15.6%) worked as entrepreneurs.

Table 4. Distribution of Respondents Based on Information Source

Variable	f	%
Source Information		
Magazine	4	8.8
TV	10	22.2
Health worker	25	17.7
Midwife		55.5
Total	45	100

Based on the sources of information of respondents in this study, the majority of information sources were from midwives, 25 people (55.5%) and from magazines, 4 people (8.8%).

Table 5. Distribution Knowledge Respondent

Knowledge	f	%
Not enough	8	17.7
Enough	20	44.4
Good	17	37.7
Total	45	100

Based on Table 5, it is known that the majority of respondents' knowledge is sufficient, as many as 20 respondents (44.4%).

Table 6. Distribution of Respondents' Colostrum

Knowledge	f	%
Given	17	37.7
Not Given	28	62.3
Total	45	100

The research results showed that the majority of respondents did not provide colostrum as many as 28 respondents (62.3%).

Research result show that the analysis of the relationship between knowledge of breastfeeding mothers and giving first breast milk (colostrum) in the obstetrics room of South Tapanuli District Hospital using the chi-square correlation test $\rho = 0.003$, this figure is smaller than the value $\alpha = 0.05$ so it can be concluded that there is a significant relationship between Knowledge of breastfeeding mothers with giving colostrum in the obstetrics room of South Tapanuli District Hospital. The r value (correlation coefficient) is 0.843, which shows that the level of correlation between knowledge of breastfeeding mothers and giving first breast milk (colostrum) in the obstetrics room of the South Tapanuli District Hospital is a strong correlation. Meanwhile, the positive relationship found in the correlation coefficient shows that the relationship is unidirectional, meaning that the more a mother's knowledge about breastfeeding increases, the more colostrum she gives.

Discussion

a. Respondent Characteristics

Based on Table 1, the majority of respondents in this study were 20-35 years old, 39 people (86.7%). Based on table 2, the majority of respondents' education in this study was high school, 26 people (57.8%). According to researchers, the level of education will greatly influence the success and provision of absorbing health-related information to patients, because the higher a person's education, the higher the level of knowledge that can help in understanding the information received. This is in line with research conducted by [7] which states that sufferers who have higher education will have broader knowledge, allowing patients to be able to control themselves in overcoming problems and easily understand what is recommended by health workers. Based on the occupation of the respondents in this study, the majority were housewives, 18 people (40.0%) and 7 people who worked as entrepreneurs (15.6%).

b. Knowledge

Knowledge of breastfeeding mothers is all the knowledge possessed by breastfeeding mothers. The results of the study showed that the majority of respondents in the midwifery room at the South Tapanuli District Hospital had sufficient knowledge, namely 22 respondents (44.4%). According to researchers, from the existing data, there is sufficient knowledge of breastfeeding mothers because the majority of respondents have a high school education.

The respondent's knowledge about giving first breast milk (colostrum) is an understanding that a person has about giving first breast milk

(colostrum). The results of the research showed that respondents' knowledge about giving first breast milk (colostrum) was still lacking, namely 8 respondents (17.7%). A person's knowledge is indirectly related to their level of education, occupation and the source of information obtained. If we look at the characteristics of mothers based on education, 6 respondents (13.3%) can be categorized as having a low level of education, 18 respondents (40%) as housewives are still not optimal so mothers do not understand first breast milk (colostrum) because they do not yet have previous experience and lack of information about first breastfeeding (colostrum).

This is in accordance with the opinion of [2] who states that one of the factors that influences a person's knowledge is education. Education itself determines a person's ability to absorb and understand various information received from outside.

The higher the mother's knowledge, the better the mother's understanding and knowledge in giving first breast milk (colostrum).

Breastfeeding mothers with less knowledge do not give colostrum due to the mother's lack of knowledge about colostrum, so the mother does not give colostrum to her baby. There were several respondents who said that the first yellow breast milk that came out was stale breast milk.

c. First Breastfeeding (colostrum)

Giving breast milk the first step (colostrum) is one of the ways in which breastfeeding mothers provide the first fluid that comes out to the newborn to fulfill the nutrition of the newborn. The results showed that of the 45 breastfeeding mothers (100%), 17 (37.7%) breastfeeding mothers gave first breast milk (colostrum) to newborns and 28 (62.3%) breastfeeding mothers did not give colostrum to newborns.

newborn baby. Researchers are of the opinion that most of the breastfeeding mothers who provide colostrum have a high school diploma, 26 people (57.8%).

This is supported by sufficient knowledge of breastfeeding mothers about colostrum.

The results of this research are in line with research conducted by [5] stating that the majority of respondents at the Baturaden Community Health Center, Banyumas Regency did not provide colostrum, 16 respondents (53.3%). However, this is in contrast to research conducted by Mustafa Mardiana, in 2015 at RSKD Ibu and Anak Pertiwi Makasar and the research results showed that the majority of respondents gave colostrum to newborn babies, namely 84 respondents (94.4%).

Newborn babies really need food in the form of fluids after birth because at that time the newborn baby's need for perfect nutrition is very necessary by being given colostrum which contains more nutrients than breast milk (breast milk).

d. The Relationship between Mothers' Knowledge of Breastfeeding and First Breastfeeding (Colostrum)

The results of research on the relationship between knowledge of breastfeeding mothers and giving colostrum to newborns using the chi-square test $p = 0.003$ which shows that there is a significant relationship between

the two. Knowledge is an important basis in forming one's actions. Actions that are based on knowledge will be much better and last longer than actions that are not based on knowledge [6].

Based on research results from 17 people (10.8%) who had good knowledge about colostrum, 14 people gave colostrum to their babies. The results of previous research, namely research conducted by [8] regarding the relationship between breastfeeding mothers' knowledge about the benefits of colostrum and giving colostrum to newborn babies, showed that of the 20 respondents (100%) who had good knowledge about 29 colostrum, the majority gave colostrum to new babies. were born, namely 19 people (95%). Nursing mothers who have a good level of knowledge about colostrum means they have an understanding of the meaning of colostrum, the composition of colostrum, the benefits of colostrum and the timing of giving colostrum so that this will also influence breastfeeding mothers in giving colostrum to newborn babies. The provision of colostrum by breastfeeding mothers to newborns is related to the knowledge they have.

The research results obtained are also not different from research conducted by [5] regarding the factors that influence the provision of colostrum to newborns at the Baturaden Community Health Center, Banyumas Regency, which shows that breastfeeding mothers who have sufficient knowledge provide colostrum to newborns. as many as 5 people.

4. CONCLUSION

Based on the conclusion, there is a significant relationship between knowledge of breastfeeding mothers and giving first breast milk (colostrum) in the obstetrics room at the South Tapanuli Regency Hospital, as shown by the chi-square correlation test value, which obtained a value of $\rho = 0.003$. Most of the respondents' knowledge was sufficient, as many as 20 respondents (44.4%). For nursing mother patients to continue to increase knowledge regarding first breast milk (colostrum).

ACKNOWLEDGEMENTS

The author would like to thank those who have helped in this research so that this research can be completed well.

REFERENCE

- [1] Aminah, M. S. (2012). *Tingkat Kolostrum*. Jakarta: EGC.
- [2] Arikunto, S. (2009). *Prosedur Pendekatan Praktik Studi Suatu*. Jakarta: Rineka Cipta.
- [3] Astutik. (2015). Hubungan antara tingkat pengetahuan ibu tentang ASI dan perilaku menyusui ibu di Puskesmas Mergangsan Yogyakarta.
- [4] District Health Department South Tapanuli. (2021). *Profil Kesehatan Kabupaten Tapanuli Selatan*. Dinas Kesehatan Tapsel.
- [5] Hapsari. (2006). Studi berbagai faktor yang berhubungan dengan kolostrum pertama menyusui.
- [6] Hidayat, A. (2009). *Metode Penelitian Kebidanan dan Teknik Analisis Data*. Jakarta: Salemba Medika.
- [7] Indonesian Midwives Association. (2015). *Bidan Menyongsong Masa Depan*. Jakarta: PP IBI.
- [8] Mustafa, M., & Suhartatik. (2015). Hubungan antara pengetahuan dan sikap ibu postpartum dengan pemberian kolostrum pada bayi baru lahir di RSKD Ibu dan Anak Pertiwi.
- [9] Roesli, U. (2008). *Inisiasi Menyusui Dini Plus ASI Eksklusif*. Jakarta: Pustaka Ibu.
- [10] Soetjiningsih. (2016). *ASI: Petunjuk bagi Tenaga Kesehatan*. Jakarta: EGC.
- [11] Wijayanti. (2013). Hubungan antara pendidikan pekerjaan pengetahuan dan sikap ibu terhadap ASI eksklusif. Diakses dari <http://eprints.dinus.ac.id/pdf> pada 29 Maret 2016 pukul 20.00 WIB.
- [12] World Health Organization (WHO). (2012). *Physical Status: The Use and Interpretation of Anthropometrics*. Geneva: World Health Organization.
- [13] North Sumatra Health Service. (2015). *Profil Kesehatan Sumatera Utara*. Dinas Kesehatan Sumatera Utara.
- [14] Rya Anastasya Siregar, Novita Sari Batubara, Rizka Heriansyah, Tapi Endang Fauziah Lubis. (2024). Breastfeeding Knowledge and Colostrum Provision at South Tapanuli Regional Hospital. *International Journal of Public Health Excellence (IJPHE)*, 4(1), 102-107. <https://ejournal.ipinternasional.com/index.php/ijphe>. DOI: 10.55299/ijphe.v4i1.949
- [15] Ministry of Health of the Republic of Indonesia. (2019). *Health Profile of North Sumatra Province*. North Sumatra Health Office.