

## COLOSTRUM ADMINISTRATION TO NEWBORNS IS REVIEWED FROM CHARACTERISTICS, KNOWLEDGE ABOUT BREASTFEEDING AND FAMILY SUPPORT

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### Abstract

**Background:** Colostrum is the first breast milk liquid that comes out after childbirth, golden yellow in color and has a thick texture. Hospitals have made regulations for exclusive breastfeeding, education has also been carried out, but mothers often feel that milk production does not meet the needs of babies, so they want to give formula milk as a substitute for colostrum. The purpose of this study is to find out the administration of colostrum to newborns from the characteristics, knowledge of breast milk and family support. **Method:** the method used is quantitative descriptive with a cross sectional approach. The sample was taken by *purposive sampling* with a sample of 14 postpartum mothers. Data analysis was carried out univariately. **Results of the study:** the majority of postpartum mothers are 20-35 years old (13 people), in terms of education, most mothers have a higher level of education (64.3%). Maternal parity is divided equally between primipara (50%) and multipara (50%). In terms of knowledge, more than half of mothers (64.3%) have good knowledge about breast milk and colostrum, while the other 35.7% have less knowledge. Family support for colostrum administration is still relatively low, with 57.1% of mothers receiving less support and only 42.9% receiving good support. Despite the fact that there are still mothers with low knowledge and lack of family support, the majority of mothers (92.9%) still give colostrum to their babies. Only 1 mother (7.1%) did not give colostrum to her baby. **Conclusion:** Mother's knowledge about breast milk and colostrum is quite good, but family support for colostrum administration is still relatively lacking. The main factor contributing to the administration of colostrum is a good level of maternal knowledge. Education on the benefits of colostrum and family support in breastfeeding needs to be further improved.

**Keywords:** Maternal Knowledge, Family Support, Colostrum.

### 1. INTRODUCTION

Breastfeeding is very important because stunting has burdened the health system in Indonesia. Breastfeeding mothers think that the first liquid that comes out during childbirth, called colostrum, is not good to give to the baby because the yellowish thick liquid is considered dirty breast milk (breast milk) and harmful to the baby's health. In fact, they give pre-lactation food to their babies in the first 2 to 3 days after birth. There are many reasons to avoid giving colostrum, including the administration of colostrum causing stomach discomfort and diarrhea, the statement of colostrum of yellow milk whose quality is not good such as stale milk, colostrum is not good for babies, there is a tradition that does not allow the administration of colostrum in the early days of birth [1].

According to World Health Organization (WHO) data in 2021, the coverage of exclusive breastfeeding was recorded at only 69.7%, in 2022 67.96% there was a decrease from 2021 to 2022. The achievement of exclusive breastfeeding in lower-middle-income and upper-middle-income countries is less than 50%, while the achievement of exclusive breastfeeding in low-income countries is around 50% [2]. According to United Nations International Children's (UNICEF) data, breastfeeding coverage in Indonesia in 2018 was 64.5%, in 2019 it was 52.5%, there was a decrease in exclusive breastfeeding coverage from 2018 to 2021 [3].

In Indonesia, exclusive breastfeeding during the first six months of a child's life increased from 52% in 2017 to 68% in 2023. However, the newborn stage is still fraught with major problems. As a result of Survey Kesehatan Indonesia (SKI, 2023), only 27% of newborns receive breast milk in the first hour of birth, one in five babies are given food or fluids other than breast milk in the first three days of birth, and only 14% of babies have skin-to-skin contact for at least an hour after birth. To establish long-term breastfeeding and survival of newborns, it is essential to start breastfeeding in the first hour of their life. Breast milk preparation after birth can be fatal. UNICEF and WHO recommend that babies get full breast milk during the first six months of life, starting one hour after birth. Breastfeeding exclusively for the first six months, without additional food, improves the baby's cognitive and sensory development and protects him from chronic and infectious diseases [4].

Colostrum must be given to the baby first and the administration of this colostrum is continued with exclusive breastfeeding. If this is done, it will provide good physical, emotional, intellectual and spiritual development in life where the brain growth jump period is 0-6 months. Colostrum administration can be started from the first hour of the baby's birth by practicing Early Breastfeeding Initiation [5]. Babies who do not get colostrum will be more susceptible to infection because colostrum contains many antibodies that can maintain better immunity. Babies are also more susceptible to allergies and diarrhea or lactose intolerance. If the baby does not get colostrum and continues not to get exclusively breast milk, it will be more susceptible to stunting and malnutrition occurs at the age of toddlers [6]. The impact of babies who are not given colostrum is that they are susceptible to allergies or infections due to a lack of intake of immune substances that are actually contained in colostrum. In addition, babies are also susceptible to various diseases due to vitamin and protein deficiency. Long-term risks for babies are more susceptible to diarrhea, leukemia or diabetes [7].

RSPAD Gatot Soebroto is a national referral center hospital located in Jakarta. The hospital's policy supports exclusive breastfeeding, this is evidenced by the implementation of Early Breastfeeding Initiation and the baby is carried out in joint care. Formula milk is used in special conditions, such as babies with hypoglycemia. And formula feeding must include proof of informed consent signed by the doctor and the baby's parents. Based on data from September to October, there were 82 postpartum mothers who gave colostrum. Maternal concerns about the adequacy of breast milk on the first day of breastfeeding are one of the main problems that often occur. Many mothers believe that their babies don't get enough breast milk because their milk is still low. The condition of a cranky and constantly crying baby, which is associated with hunger, often exacerbates this. As a result, many mothers decide to use formula milk as an alternative without realizing that this can interfere with breast milk production and the exclusive breastfeeding process.

Non-output breast milk is a condition in which breast milk is not produced or there is little milk production. It is due to the influence of the hormone oxytocin which is less active due to the lack of stimulation of the baby's suction that activates the work of the hormone oxytocin [8]. Other factors that affect the administration of colostrum are maternal knowledge, age, education, and family support. Mothers who lack education or don't know about the benefits of colostrum tend to be more susceptible to myths and social pressures. In addition, a lack of support from family or partner can increase maternal anxiety in breastfeeding, which increases the likelihood of early formula feeding [7].

This study aims to determine the administration of colostrum to newborns from the characteristics, knowledge of breast milk and family support. The results are expected to be used as a basis for creating better education plans and interventions to improve colostrum administration practices in the community.

## 2. METHODOLOGY

This study uses a quantitative descriptive method that aims to describe the administration of colostrum to newborns based on their characteristics, level of maternal knowledge about breastfeeding and family support. The design of this study is non-experimental because there is no intervention or treatment of the research subject. The population in this study is all postpartum mothers who are treated in the postpartum room RSPAD Gatot Soebroto from November to December 2023, which is 82 people. The sampling technique uses the purposive sampling method, which is the selection of samples based on certain criteria that have been set. The

inclusion criteria in this study include: Postpartum mothers who are willing to be respondents, mothers who give birth normally or cesarean sections, babies who are treated together with their mothers. Meanwhile, exclusion criteria include mothers who experience postpartum complications that hinder the breastfeeding process, such as mothers with heart disease, hepatitis, and HIV. A sample of 14 people was obtained. The variables studied included dependent variables: colostrum administration to newborns, independent variables: maternal characteristics (age, education, parity), level of maternal knowledge about breastfeeding and family support in colostrum administration. Data collection uses questionnaires that have been tested for validity and reliability. The questionnaire consisted of 17 questions about breastfeeding knowledge and 12 questions about family support for colostrum administration. After the data is collected, the verification stage and data completeness check are carried out. The data were then classified and presented in the form of frequency distributions as well as percentages for each variable studied. The results of the data analysis are presented in the form of tables and descriptive narratives to provide an overview of the administration of colostrum based on maternal characteristics, maternal knowledge, and family support.

### 3. RESULT

To further understand how maternal characteristic factors, maternal knowledge about breastfeeding, and family support for colostrum administration in newborns, the data that have been collected are presented in the form of frequency distribution tables. This table provides an overview of the distribution of respondents based on the variables studied, so that patterns or trends that exist in the population being studied can be seen.

**Table 1.** Colostrum administration to newborns is reviewed from maternal characteristics, maternal knowledge about breastfeeding and family support

	f	%
<b>Age</b>		
20-35 years old	13	92,9
>35 years old	1	7,1
<b>Education</b>		
Low	5	35,7
High	9	64,3
<b>Paritas</b>		
Primipara	7	50
Multipara	7	50
<b>Pengetahuan</b>		
Less	5	35,7
Good	9	64,3
<b>Dukungan Keluarga</b>		
Less	8	57,1
Good	6	42,9
<b>Administration of Colostrum</b>		
No	1	7,1
Yes	13	92,9

Source: Primary data, 2023

Based on the data collected, the majority of postpartum mothers are in the age range of 20-35 years (13 people), while only 1 mother is over 35 years old. In terms of education, most mothers have a high level of education (64.3%), while the other 35.7% have a low level of education. Maternal parity is divided equally between primipara (50%) and multipara (50%). In terms of knowledge, more than half of mothers (64.3%) have good knowledge about breast milk and colostrum, while the other 35.7% have less knowledge. However, family support for colostrum administration is still relatively low, with 57.1% of mothers receiving less support and only 42.9% receiving good support. Despite the fact that there are still mothers with low knowledge and lack of family support, the majority of mothers (92.9%) still give colostrum to their babies. Only 1 mother (7.1%) did not give colostrum to her baby.

The results showed that although there were mothers who had low levels of education and lacked family support, most still gave colostrum. This suggests that a good knowledge factor plays an important role in the mother's decision to give colostrum. Mothers who have enough

information about the benefits of colostrum tend to be more confident in breastfeeding their babies. In addition, although family support in this study was more and less classified, there were still many mothers who gave colostrum. This may be due to the hospital's policy that requires exclusive provision, as well as education provided by health workers during childbirth or after childbirth. These findings indicate that health education about the importance of colostrum still needs to be improved, both for mothers and their families.

Breast milk is considered an optimal food regime for newborns due to its ability to provide complete nutrition and many bioactive health factors. Breastfeeding is associated with improved infant health and immune development, fewer incidences of gastrointestinal disease and lower mortality rates than formula-fed infants [6]. Newborns are safest if they are given colostrum continuously from the beginning. Colostrum contains a lot of protein and antibodies, but it is very thick and not much [9]. Exclusive breastfeeding is recommended for the first six months of age by the World Health Organization. Good knowledge and positive attitudes of mothers play a key role in the process of exclusive breastfeeding practices [10]. These results also corroborate previous research that states that maternal knowledge is a major factor in colostrum administration. However, it is also important to increase the role of the family in supporting the practice of breastfeeding, given that some mothers do not give colostrum perhaps due to pressure or lack of support from the family [11]. Thus, interventions that target increasing maternal knowledge and education to families can be an effective strategy in increasing the rate of colostrum administration in newborns.

#### 4. CONCLUSIONS

Based on the results of this study, it can be concluded that the majority of postpartum mothers are in the age range of 20-35 years with a relatively high level of education. Maternal knowledge about breast milk and colostrum is also quite good, but family support for colostrum administration is still relatively lacking. Despite this, most mothers still give colostrum to their babies. The main factor contributing to the administration of colostrum is a good level of maternal knowledge. Therefore, education about the benefits of colostrum and the importance of family support in breastfeeding needs to be further improved to ensure that all babies get colostrum as their first intake. The limitations of this study are that the number of samples is too small and the time is too short, so further analysis cannot be carried out.

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