

Research Article

The Relationship Between Mother's Knowledge and Breastfeeding Behavior at Mother and Child Hospital Ananda Makassar in 2022

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Abstract: Breast milk is the most complete form of nutrition for infants, capable of fulfilling all their needs across physical, psychological, social, and even spiritual dimensions. It contains essential nutrients, antibodies, and bioactive components that support optimal growth and development while fostering emotional bonding between mother and child. A mother's level of knowledge plays a pivotal role in shaping her motivation and commitment to breastfeeding, as informed mothers are more likely to initiate and maintain exclusive breastfeeding practices. This study aims to examine the relationship between maternal knowledge and breastfeeding behavior at Mother and Child Hospital (RSIA) Ananda Makassar in 2022. Employing a quantitative research approach with an analytical observational design, the study utilized a cross-sectional method to capture data at a single point in time. Research was conducted from December 2022 to January 2023, targeting a population of 329 mothers who delivered at RSIA Ananda Makassar between May and December 2022. Using purposive sampling based on specific inclusion criteria, a total of 112 respondents were selected for participation. Data were analyzed using the Chi-Square test to assess the association between the independent variable (maternal knowledge) and the dependent variable (breastfeeding behavior). A significance level of 5% ($\alpha = 0.05$) was applied to determine statistical relevance. The results revealed a significant relationship between mothers' knowledge levels and breastfeeding behavior ($p = 0.003$), indicating that higher knowledge levels were associated with better breastfeeding practices. These findings highlight the importance of health education interventions aimed at increasing maternal knowledge on breastfeeding. Strengthening awareness programs, providing counseling during antenatal and postnatal care, and involving family support systems could enhance breastfeeding behaviors. Ultimately, improving maternal knowledge serves as a key strategy to promote exclusive breastfeeding, which in turn contributes to improved infant health outcomes and the overall well-being of both mother and child.

Keywords: Breastfeeding behavior; Breastfeeding; Knowledge; maternal motivation; mother and child hospital

1. Introduction

Exclusive breastfeeding is the most ideal nutritional intake for babies, as it fully meets all their growth and development needs physical, mental, social, and spiritual. Breast milk contains more than 200 essential substances, including nutrients, hormones, and immune substances, all of which play a role in supporting infant growth, brain function, and protection against infection.

The Indonesian government has mandated exclusive breastfeeding for the first six months of a baby's life, as stipulated in Government Regulation Number 33 of 2012, unless there are certain medical conditions or the mother and baby are unable to be together. 3,4,5

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However, a 2022 UNICEF report showed that only around 52.5% of babies in Indonesia are exclusively breastfed, a 12% decrease compared to 2019. Early Initiation of Breastfeeding (IMD) rates have also declined significantly. In fact, exclusive breastfeeding has been proven to reduce the risk of infant mortality due to diarrhea by up to 13% and is estimated to save around 30,000 children each year.

A mother's level of knowledge plays a key role in the success of exclusive breastfeeding. Adequate knowledge about the benefits of breast milk, proper breastfeeding techniques, and support from family and the workplace can encourage mothers to be more motivated to breastfeed. Conversely, limited information can lead to the choice of formula feeding, which can potentially increase the risk of urinary tract infections, respiratory disorders, allergic reactions, and even the development of chronic diseases.

The 2017 WHO Global Guidelines on Infant and Early Childhood Feeding emphasize the importance of initiating breastfeeding immediately after birth, continuing with exclusive breastfeeding for six months, and continuing breastfeeding up to two years of age with additional complementary foods.

Makassar, particularly Rappocini District, has one of the highest birth rates in South Sulawesi Province. Mother and Child Hospital (RSIA) Ananda Makassar, a maternal and child health service facility in the area, reported 263 births between June and July 2022, and recorded 2,271 visits by pregnant women for antenatal care (ANC) checkups, based on 2022 data.

These figures indicate that Ananda Hospital is a strategic location for evaluating breastfeeding practices. However, to date, no research has specifically examined the relationship between maternal knowledge and breastfeeding behavior at the facility. Based on this background, this study aims to analyze the relationship between maternal knowledge and breastfeeding behavior at Mother and Child Hospital (RSIA) Ananda Makassar, as an effort to support improving infant nutritional status through optimal breastfeeding practices.

2. Proposed Method

This study employed an observational analytical design with a cross-sectional approach to explore the relationship between maternal knowledge and exclusive breastfeeding practices. The study was conducted at Mother and Child Hospital (RSIA) Ananda Makassar and data collection took place from December 2022 to January 2023. All mothers who gave birth at the hospital between May and December 2022 comprised the study population, and the sample was drawn using purposive sampling based on the following inclusion criteria: having a baby aged 0–6 months, willing to sign an informed consent, able to communicate, and having complete medical records. Mothers or babies with medical conditions that could interfere with exclusive breastfeeding were excluded from the sample. Based on the Slovin formula, the minimum number of respondents required was 112.

Primary data was collected through questionnaires, both face-to-face and via Google Forms, while secondary data was sourced from hospital medical records. Data processing included editing, coding, entry, and tabulation. Univariate analysis was used to examine the frequency distribution of each variable, while bivariate analysis tested the relationship between variables using the chi-square method.

All stages of the research received ethical clearance from the relevant committee. The confidentiality of each respondent's information was strictly maintained, and the principles of respect for persons, beneficence, nonmaleficence, and justice were applied throughout the study.

3. Results and Discussion

Respondent characteristics in this study included maternal age, child gender, education, occupation, obstetric status, and delivery method. Respondent characteristics are listed in Table 1 below.

Table 1. Frequency of Respondent Characteristics

Variables	Frequency	
	n	%
Mother's Age		
a. <20 years	11	9,8
b. Ages 20-35 years	82	73,2
c. Ages >35 years	19	17
Child's gender		
a. Male	67	59,8
b. Female	45	40,2
Mother's education		
a. Elementary school	3	2,7
b. Junior High School	7	6,3
c. Senior High School	61	54,5
d. Diploma/Bachelor's/Master's/Doctoral degree	41	36,0
Mother's Occupation		
a. Employee	18	16,1
b. Teacher/Lecturer	10	8,9
c. Health Worker	6	5,4
d. Self-Employed	20	17,9
e. Civil Servant	20	17,9
f. Housewife	38	33,9
Obstetric Status		
a. Primigravida	53	47,3
b. Multigravida	59	52,7
Delivery Method		
a. Vaginal Delivery	75	67,0
b. Cesarean Section	37	33,0
Total	112	100,0

The majority of study participants were mothers aged 20 to 35 (73.2%), with only 9.8% of mothers under 20 and 17.0% over 35. More boys were breastfed (59.8%) than girls (40.2%). The majority of mothers had a high school education (54.5%), followed by college graduates (36.6%), and only a small proportion were elementary and junior high school graduates. The most common occupations were housewives (33.9%), followed by self-employed and civil servants (17.9% each), and the remainder were spread across other professions such as employees, educators, and healthcare workers.

From an obstetrical perspective, 52.7% of mothers were multigravida and 47.3% were primigravida. The most common method of delivery was vaginal delivery (67.0%), while 33.0% delivered by cesarean section. These results illustrate that most respondents were mothers with previous experience of giving birth, were in the ideal reproductive age range, had secondary education, and tended to choose normal vaginal delivery.

Table 2. Mothers' knowledge about exclusive breastfeeding

Mother's Knowledge		n	%
a.	Good (>75% correct answers)	31	27,7
b.	Fair (55–75% correct answers)	55	49,1
c.	Poor (<55% correct answers)	26	23,2
Total		112	100,0

Based on the data in Table 2, 31 respondents (27.7%) were classified as having good knowledge about exclusive breastfeeding, 55 respondents (49.1%) were in the moderate knowledge category, and 26 respondents (23.2%) were in the low knowledge group. These findings indicate that the majority of breastfeeding mothers at Mother and Child Hospital (RSIA) Ananda Makassar have an adequate understanding of exclusive breastfeeding practices.

Table 3. Types of Exclusive Breastfeeding

Breastfeeding		n	%
a.	Exclusive Breastfeeding	78	69,6
b.	Non-Exclusive Breastfeeding	34	30,4
Total		112	100,0

Based on the information in Table 3, 78 mothers (69.6%) exclusively breastfed, while 34 mothers (30.4%) did not. This finding indicates that the majority of breastfeeding mothers at Mother and Child Hospital (RSIA) Ananda Makassar choose to exclusively breastfeed their babies.

Table 4. Exclusive Breastfeeding Behavior

Breastfeeding Behavior		n	%
a.	Very good (score 9–10)	22	19,6
b.	Good (score 6–8)	45	40,2
c.	Fair (score 3–5)	23	20,5
d.	Poor (score 0–2)	22	19,6
Total		112	100,0

Based on the data in Table 4, 22 mothers (19.6%) demonstrated excellent behavior in exclusive breastfeeding. Meanwhile, 45 mothers (40.2%) demonstrated good behavior, 23 mothers (20.5%) were classified as fairly good, and 22 mothers (19.6%) demonstrated poor behavior in exclusive breastfeeding practices.

Table 5. Relationship between maternal knowledge and breastfeeding

Breastfeeding	Knowledge						Total		<i>p-value</i>
	Good		Fair		Poor				
	n	%	n	%	n	%	n	%	
Exclusive breastfeeding	24	30,8	43	55,1	11	14,1	78	69,6	0,003
Non-exclusive breastfeeding	7	20,6	12	35,3	15	44,1	34	30,4	
Total	31	27,7	55	49,1	26	23,2	112	100,0	

Referring to Table 5, of the 112 respondents, 78 (69.6%) were known to be exclusively breastfeeding, while 34 (30.4%) were not. Most mothers who exclusively breastfed had sufficient knowledge, namely 43 (55.1%). On the other hand, the majority of mothers who did not exclusively breastfeed had low knowledge, namely 15 (44.1%). Based on the results

of the Chi-Square analysis, a significance value of $p = 0.003$ was obtained, which is less than 0.05. Thus, it can be concluded that there is a significant relationship between maternal knowledge and the practice of exclusive breastfeeding at Mother and Child Hospital Ananda Makassar in 2022.

Table 6. Relationship between maternal knowledge and breastfeeding behavior

Mother's Knowledge	Breastfeeding Behavior								Total		<i>p-value</i>
	Very Good		Good		Fair		Poor				
	N	%	n	%	n	%	n	%	n	%	
Good	8	25,8	19	61,3	2	6,5	2	6,5	31	27,7	0,000
Fair	10	18,2	21	38,2	18	32,7	6	10,9	55	49,1	
Poor	4	15,4	5	19,2	3	11,5	14	53,8	26	23,2	
Total	22	19,6	45	40,2	23	20,5	22	19,6	112	100,0	

Referring to Table 6, of the 112 respondents, the majority of mothers with a good level of knowledge regarding exclusive breastfeeding demonstrated good breastfeeding behavior (score 6–8), namely 19 people (61.3%). Meanwhile, respondents with sufficient knowledge about exclusive breastfeeding mostly also demonstrated good breastfeeding behavior (score 6–8), namely 21 people (38.2%). Conversely, mothers with a low level of knowledge tended to show poor breastfeeding behavior (score 0–2), namely 14 people (53.8%). Based on the analysis using the Chi-Square test, a significance value of $p = 0.000$ was obtained, which is smaller than 0.05, so it can be concluded that there is a significant relationship between the level of maternal knowledge and exclusive breastfeeding behavior at Mother and Child Hospital Ananda Makassar in 2022.

Discussion

A correlation analysis between maternal knowledge and exclusive breastfeeding practices showed that, of the 112 respondents, 78 (69.6%) practiced exclusive breastfeeding. Of this group, 43 mothers (55.1%) had adequate knowledge of exclusive breastfeeding practices. Conversely, 34 mothers (30.4%) did not practice exclusive breastfeeding, and the majority of these 15 respondents (44.1%) had poor knowledge of the practice. The chi-square test results showed a p -value of 0.003 ($p < 0.05$), indicating a significant association between maternal knowledge and exclusive breastfeeding at Mother and Child Hospital Ananda Makassar in 2022. According to Notoatmodjo (2012), knowledge is formed through the process of sensing an object, involving the five senses sight, hearing, smell, taste, and touch where the majority of information is obtained through sight and hearing.

Fitriani (2019) reported similar results through bivariate analysis using the chi-square test, where of 60 mothers, 22 (36.7%) were recorded as having insufficient knowledge about exclusive breastfeeding. Furthermore, 31 mothers (51.7%) indicated an attitude that was less supportive of the practice. These findings also confirmed a significant association between maternal knowledge and attitudes and exclusive breastfeeding behavior.

In her explanation, Fitriani emphasized that how well a mother understands the benefits of exclusive breastfeeding greatly determines whether she will implement it. In other words, the greater a mother's knowledge about the benefits of exclusive breastfeeding, the more likely she is to practice it; conversely, a lack of understanding tends to lead to non-implementation of exclusive breastfeeding. According to Anggraini et al. (2020), mothers with limited knowledge tend to be reluctant to practice exclusive breastfeeding compared to those with good knowledge. This condition is influenced by several factors, such as low educational attainment, minimal support from family especially from husbands and a lack of information provided by health workers regarding the importance of exclusive breastfeeding. Notoatmodjo (2012) explains that knowledge formation is influenced by internal factors including educational background, interests, experience, and age as well as external factors such as economic situation, access to information, cultural values, and the surrounding environment. In this study, in addition to the majority of respondents having a junior high

school education (59.5%), their ability to understand exclusive breastfeeding was also influenced by a combination of other internal and external variables, such as age and personal experience.

The majority of pregnant women in this study were in these 20-30 age group 82 women, or 73.2%. Rica (2018) stated that the age range of 20-35 years is the most optimal period for pregnancy and lactation, because during this phase, the mother's physical and psychological condition is generally stable. These results align with the findings of Dian Lestari (2018), who also found a significant relationship between maternal age and successful breastfeeding practices. Education plays a crucial role in shaping mothers' knowledge about exclusive breastfeeding. The majority of respondents 61 respondents, or 54.5% were high school graduates. Diah et al. (2018) revealed that higher levels of education facilitate the acceptance and understanding of information. However, women's high participation in education and the workforce can reduce breastfeeding duration. Subur et al. (2020) added that mothers' knowledge does not solely come from school but also from counseling, print and online media, and explanations from health workers at integrated health posts (Posyandu) or community health centers (Puskesmas). Work conditions have also been shown to influence breastfeeding practices. Among the mothers in this study, 38 (33.9%) were unemployed or housewives a situation Rica (2018) believes allows them more time to breastfeed, unlike working mothers who often face time constraints.

Juliani et al. (2018) found that more mothers with sufficient knowledge did not practice exclusive breastfeeding compared to those with good knowledge and who exclusively breastfed. This finding confirms the influence of the environment on breastfeeding decisions. Mamonto (2018) also reported that 26.2% of mothers with low knowledge did not practice exclusive breastfeeding, and even 73% of mothers with good knowledge did not practice it either, demonstrating the significant role of cultural factors and family support in exclusive breastfeeding practices. Exclusive breastfeeding is defined as providing breast milk without any additional supplements other than medication or vitamins to infants under six months of age. In practice, this parenting style is often hampered by cultural norms and mothers' lack of understanding of its essence. A comprehensive understanding of the concept, benefits, and consequences of exclusive breastfeeding is key to developing appropriate breastfeeding behaviors. Nurhidayu (2019) emphasized that the broader a mother's knowledge about exclusive breastfeeding, the better her implementation of exclusive breastfeeding practices.

Therefore, mothers who truly understand the importance of exclusive breastfeeding both for their own and their babies' health tend to be more persistent in implementing it. To prepare a healthy generation, it is important not only to exclusively breastfeed for the first six months but also to continue breastfeeding until the baby is two years old, as recommended by WHO. According to UNICEF data (2020), 52% of infants in Indonesia under six months have received exclusive breastfeeding, but only about half of mothers continue breastfeeding until the age of two. In fact, inappropriate provision of complementary foods or formula milk can increase the risk of disease in children.

In this study, the chi-square test yielded a p-value of 0.000 (<0.05), proving a significant correlation between maternal knowledge and exclusive breastfeeding practices at Mother and Child Hospital (RSIA) Ananda Makassar in 2022. Mega Ayu (2020) also found that mothers with good knowledge practiced exclusive breastfeeding more frequently, while those with poor knowledge did so less frequently; Fisher's exact test yielded a p-value of 0.000, confirming this significant relationship. Furthermore, Nia Widia (2020) and Rinata et al. (2016) stated that breastfeeding success is highly dependent on correct technique. Khoriyah & Prihatini (2014) added that parity influences breastfeeding ability: multiparous mothers are generally more experienced than primiparous mothers. A mother's breastfeeding practices are influenced by various factors, such as her knowledge, educational background, employment status, as well as the influence of advertising, social norms, and daily routines. When information from health professionals is inaccurate, the risk of breastfeeding failure increases. Furthermore, psychological well-being is also crucial. A positive attitude and intention to breastfeed should be established during pregnancy. Family support, especially from the husband, along with a breastfeeding culture in the community, also contribute to successful breastfeeding. Some common challenges include sore or cracked nipples, breast engorgement, mastitis, and abscesses, which are often caused by improper breastfeeding positioning.

Therefore, it is important for mothers to practice proper breastfeeding techniques and positions to ensure smooth and comfortable lactation.

4. Conclusion

The results of the study at Mother and Child Hospital (RSIA) Ananda Makassar showed that most participants were mothers aged 20-35, had male babies, had a high school education, were unemployed or housewives, and were multigravida. The majority of them practiced exclusive breastfeeding, which was generally supported by an adequate understanding of exclusive breastfeeding practices. Conversely, mothers who did not practice exclusive breastfeeding tended to have low levels of knowledge. Overall, the data showed a significant correlation between maternal knowledge and the practice of exclusive breastfeeding at Mother and Child Hospital (RSIA) Ananda Makassar.

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