

# Correlation between Early Initiation of Breastfeeding and Exclusive Breastfeeding Success at Pagesangan Health Center, Mataram City

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**Abstract:** Early Initiation of Breastfeeding (IMD) is the process of placing the baby on the mother's chest immediately after birth and allowing the baby to self-feed for at least one hour. IMD is beneficial for providing colostrum, increasing immunity, and supporting the success of exclusive breastfeeding. In Mataram City, exclusive breastfeeding coverage is still below the national target, with Pagesangan Health Center recording the lowest achievement in 2023 at 42.01%. This study aims to analyze the relationship between IMD and the success of exclusive breastfeeding at Pagesangan Health Center, Mataram City. This study used an observational analytic design with a cross-sectional approach. The population was 398 mothers with infants aged 7-12 months. A sample of 80 respondents was selected using purposive sampling. Data was collected through questionnaires and analyzed using the Chi-Square test with a 95% confidence level ( $\alpha=0.05$ ). Of the 80 respondents, 55 (68.8%) performed IMD and 50 (62.5%) successfully gave exclusive breastfeeding for up to six months. Statistical analysis showed a significant relationship between IMD and the success of exclusive breastfeeding ( $p=0.005$ ;  $OR=7.855$ ). IMD is significantly associated with the success of exclusive breastfeeding. Health workers need to strengthen education and support for postpartum mothers to improve IMD practices and exclusive breastfeeding coverage.

**Keywords:** Early Initiation of Breastfeeding, exclusive breastfeeding, maternal and child

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## Introduction

Based on data from the Basic Health Research (Riskesdas), the implementation of Early Initiation of Breastfeeding (IMD) in Indonesia in 2021 was recorded at 82.7%, increasing to 86.5% in 2022, and 86.6% in 2023. Meanwhile, exclusive breastfeeding coverage in 2021 was 69.7%, decreasing to 67.96% in 2022, but increasing again to 73.97% in 2023 (Profil Kesehatan Indonesia, 2021–2023). In Mataram City, IMD coverage in 2021 was 64.40% with exclusive breastfeeding coverage of 35.14%.

In 2022, IMD coverage decreased to 52.92%, while exclusive breastfeeding coverage increased to 58.45%. In 2023, IMD coverage was 59.92% and exclusive breastfeeding coverage was 61.14% (Dinas Kesehatan Kota Mataram, 2021–2023). At Pagesangan Health Center, IMD coverage in 2021 was 80.86% with exclusive breastfeeding coverage of 33.73%. In 2022, IMD coverage decreased to 48.06% with exclusive breastfeeding coverage of 56.28%. In 2023, IMD coverage was 50.10%

and exclusive breastfeeding coverage was 42.01% (Profil Kesehatan Kota Mataram, 2021–2023).

Early Initiation of Breastfeeding (IMD) is the process of giving the baby the opportunity to start suckling on its own immediately after birth by placing it on the mother's chest or abdomen in a prone position so that direct skin-to-skin contact occurs between mother and baby. This process is carried out for at least one hour postpartum. If it is less than that time or is obstructed by cloth, IMD is considered incomplete (Profil Kesehatan Indonesia, 2023). Babies who receive IMD will obtain colostrum more quickly, which is the first breast milk rich in antibodies, protein, carbohydrates, vitamin A, and carotene that play an important role in building the baby's immune system (Harahap, 2021). Not performing IMD can result in breastfeeding failure and an increased risk of infant death, especially in the first hour after birth (Nurbaiti, 2020).

According to UNICEF and WHO, IMD is one of the ten steps to successful breastfeeding. Babies who get the opportunity to suckle early are eight times more likely to succeed in obtaining exclusive breastfeeding and tend to breastfeed longer up to two years of age (SDGs, 2015). Exclusive breastfeeding itself is the provision of breast milk alone without the addition of other foods or drinks for infants aged 0–6 months, which has been proven to support growth, development, and reduce the risk of morbidity and mortality (Nurchayani & Rohmah, 2017).

Factors that influence the success of exclusive breastfeeding include breastfeeding techniques, maternal knowledge about breast milk, employment status, neonatal complications, cultural factors, and IMD practices (Majra & Silan, 2016; Fikawati & Syafiq, 2009 in Nurchayani, 2017). Knowledge is the result of knowing after a person senses an object, either through sight, hearing, or experience (Furqoni et al., 2018). Attitude is a person's closed reaction to a stimulus or object, which can influence a mother's decision in implementing IMD and exclusive breastfeeding (Notoatmodjo, 2017). Other factors such as education, information from the media, social culture, environment, experience, and age also play a role in the level of knowledge and attitudes of mothers (Notoatmodjo, 2017).

Previous research has shown a relationship between IMD and exclusive breastfeeding. A study in Semarang found that exclusive breastfeeding was higher in mothers with good knowledge and positive attitudes (Nida & Hadi, 2022). Research in China reported that delivery history and number of children also influence the success of exclusive breastfeeding, which is closely related to IMD practices (Ruan et al., 2019).

Based on a preliminary study at Pagesangan Health Center, of seven mothers with infants aged 7–12

months, four mothers successfully performed IMD and gave exclusive breastfeeding, two mothers failed to give exclusive breastfeeding because breast milk did not come out immediately so the baby was given formula milk, and one mother did not perform IMD due to postpartum hemorrhage although she still managed to give exclusive breastfeeding. This shows that there are still obstacles in the implementation of IMD which impact the success of exclusive breastfeeding.

Based on the description above, it can be concluded that the coverage of IMD and exclusive breastfeeding in Mataram City, especially at Pagesangan Health Center, is still low. Therefore, the author is interested in researching "The Relationship between Early Initiation of Breastfeeding and the Success of Exclusive Breastfeeding at Pagesangan Health Center, Mataram City in 2025".

## Method

This study used a cross-sectional design with subjects being mothers who had infants aged 7–12 months at Pagesangan Health Center, Mataram City. From a population of 398 people, a sample of 80 respondents was obtained using the Slovin formula through purposive sampling according to inclusion and exclusion criteria. Primary data were collected using a closed questionnaire about IMD and exclusive breastfeeding, while secondary data came from infant registers and MCH books. Data processing included editing, coding, entry into SPSS 26, and cleaning. The independent variable was the implementation of IMD, while the dependent variable was the success of exclusive breastfeeding. Analysis was performed univariate and bivariate using the Chi-square test with a 95% confidence level ( $\alpha = 0.05$ ).

## Result and Discussion

Table 1. Respondent Characteristics Based on Age, Education, and Occupation (n=80)

Characteristics	Number (n)	Percentage (%)
Age		
< 20	5	6.3
20 – 35	62	77.5
> 35	13	16.2
Education		
Elementary School	8	10.0
Junior High School	18	22.5
Senior High School	40	50.0
Occupation		
Housewife	32	40.0
Civil Servant	10	12.5
Sales Assistant	12	15.0
Trader	14	17.5
Laborer	6	7.5
Tailor	6	7.5

Table 2. Analysis of Early Initiation of Breastfeeding with Success of Exclusive Breastfeeding

IMD	Successful		Unsuccessful		Total		P-value
	n	%	n	%	N	%	
IMD	40	50.0%	15	18.75%	55	68.8%	0.005
Non-IMD	10	12.5%	15	18.75%	25	31.2%	
Total	50	62.5%	30	37.5%	80	100%	

Table 1 shows that most respondents were aged 20-35 years as many as 62 people (77.5%) and the fewest were aged <20 years as many as 5 people (6.3%). Most of the respondents' education was Senior High School as many as 40 people (50.0%) and the fewest was 8 people (10.0%). Most respondents were housewives as many as 32 people (40.0%) and the fewest worked as laborers and tailors with 6 people each (7.5%).

Table 2 shows that of 55 mothers who performed IMD, 40 (50.0%) successfully gave exclusive breastfeeding, and 15 (18.75%) were unsuccessful. Meanwhile, of 25 mothers who did not perform IMD, only 10 (12.5%) successfully gave exclusive breastfeeding, and 15 (18.75%) were unsuccessful.

Based on the Chi-Square test results, a p-value of 0.005 was obtained ( $p < 0.05$ ), which means  $H_a$  is accepted. This indicates that there is a significant relationship between the implementation of IMD and the success of exclusive breastfeeding among breastfeeding mothers at Pagesangan Health Center, Mataram City.

The results showed that most mothers at Pagesangan Health Center had implemented Early Initiation of Breastfeeding (IMD), which was 68.8%, while 31.2% had not done so due to postpartum hemorrhage and difficulty for the baby to find the nipple. IMD is an important first step for the success of exclusive breastfeeding because it stimulates the sucking reflex, production of oxytocin and prolactin hormones, maintains the baby's body temperature, reduces maternal stress, and strengthens emotional bonds.

WHO and UNICEF recommend IMD within the first hour after birth, followed by exclusive breastfeeding for six months and continuing up to two years of age. Current evidence shows that babies who do not perform IMD have a higher risk of stunting and are more susceptible to hypothermia. In addition, modern IMD theory emphasizes the importance of skin-to-skin

contact (Kangaroo Care) in strengthening the sucking reflex and physiological stability of the baby.

The implementation of IMD is influenced by maternal beliefs, health worker support, social norms, education level, and family economic conditions. Several studies, both in Rokan Hilir, Central Lombok, and Bandar Lampung, consistently show a significant relationship between IMD and the success of exclusive breastfeeding ( $p < 0.05$ ). Thus, IMD is not just a post-birth procedure but a multifactorial intervention that requires maternal education, family support, and an active role of health workers to be optimal.

#### Identification of Exclusive Breastfeeding Success

Of the 80 respondents, 50 mothers (62.5%) successfully gave exclusive breastfeeding for up to six months, while 30 mothers (37.5%) were unsuccessful. Factors causing failure include maternal employment status, low education level, and age <20 years which is associated with lack of breastfeeding experience and knowledge (Nurcahyani & Rohmah, 2017). The success of exclusive breastfeeding is influenced by internal factors such as knowledge, attitudes, motivation, mental-physical readiness, and implementation of IMD, as well as external factors such as family support, culture, work policies, and the role of health workers. Based on Social Cognitive Theory, breastfeeding behavior is formed through self-efficacy, breastfeeding experience, social support, and a supportive environment (Rismawati et al., 2024). WHO (2023) emphasizes that six months of exclusive breastfeeding increases infant immunity, reduces the risk of infection, and provides long-term protection against obesity.

The results of this study are in line with Harahap (2021) who found a significant relationship between IMD and the success of exclusive breastfeeding. However, research by Sari et al. (2022) showed that some mothers failed to give exclusive breastfeeding even though they had performed IMD, due to low initial milk production, fussy babies, or lack of family and workplace support. This confirms that the success of exclusive breastfeeding is not only determined by IMD but is the result of the interaction of various internal and external factors. Therefore, interventions need to focus on strengthening IMD practices, lactation education, family support, and workplace policies that support breastfeeding mothers.

The results showed a significant relationship between the implementation of Early Initiation of Breastfeeding (IMD) and the success of exclusive breastfeeding. Most respondents who performed IMD successfully breastfed their babies exclusively up to six months, with statistical test results showing a p-value of 0.005 ( $p < 0.05$ ).

This confirms that IMD plays an important role in supporting the success of exclusive breastfeeding. Theoretically, IMD is considered the gateway to breastfeeding because in the first hour after birth the baby has the strongest sucking reflex. Skin-to-skin contact and breastfeeding immediately after birth can stimulate oxytocin and prolactin hormones, accelerate the release of colostrum, and strengthen the emotional bond between mother and baby. WHO and UNICEF (2021) also emphasize that proper IMD practices can increase the chances of successful exclusive breastfeeding. According to lactation theory (Widodo, 2022), a positive first breastfeeding experience through IMD can increase maternal confidence and motivation to breastfeed consistently.

The findings of this study are in line with the results of previous research, such as Wulandari et al. (2021) who found that mothers who performed IMD had a 3.5 times greater chance of successfully exclusive breastfeeding, and research by Mubarokah et al. (2023) which reported a significant relationship between IMD and exclusive breastfeeding ( $p = 0.004$ ). Other studies by Aini & Rahayu (2020) and Khasanah et al. (2019) also strengthen the evidence that IMD supports the success of exclusive breastfeeding through increasing the baby's sucking reflex and mother-child bonding.

However, research by Sari & Lestari (2020) and Yuliana (2018) shows that even though IMD is performed, breastfeeding success is still influenced by other factors such as family support, culture, maternal knowledge, and employment conditions. Thus, the results of this study confirm that IMD is an important factor in the success of exclusive breastfeeding, although not the only one. Therefore, IMD needs to be positioned as part of promotive and preventive interventions integrated with continuous education, family support, workplace policies, and health services. This comprehensive approach is expected to sustain exclusive breastfeeding coverage sustainably and have a positive impact on infant nutrition and development.

## Conclusion

This study shows that most respondents implemented Early Initiation of Breastfeeding (68.8%) and more than half successfully gave exclusive breastfeeding for up to 6 months (62.5%). Statistical analysis proves that there is a significant relationship between the implementation of IMD and the success of exclusive breastfeeding ( $p = 0.005$ ), where mothers who perform IMD have a greater chance of successfully exclusive breastfeeding.

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## Author Contributions

Conceptualization, N. and S.; methodology, N. and Y.W.; software, N.; validation, N., Y.W., and S.; formal analysis, N.; investigation, N.; resources, N.; data curation, N.; writing – original draft preparation, N.; writing – review and editing, N. and S.; visualization, N.; supervision, S.; project administration, N. All authors have read and agreed to the published version of the manuscript.

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## Conflicts of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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