

Description of Mother's Knowledge About The Benefits of Moringa Leaves In Increasing Breast Milk Productionat The Umbrella Puskesmas Sekaki

Sumia Arsita Sari

Helvetia Health Institute Pekanbaru, Indonesia



DOI: -



Sections Info

Article history:

Submitted: September 10, 2025

Final Revised: September 25, 2025

Accepted: October 02, 2025

Published: October 18, 2025

Keywords:

ASI

Moringa leaves

Knowledge

ABSTRACT

Objective: This study aims to describe the level of maternal knowledge regarding the benefits of Moringa (kelor) leaves in increasing breast milk production among breastfeeding mothers in the working area of Sidomulyo Health Center, Pekanbaru City. **Method:** This quantitative study employed a descriptive research design with a population of 489 breastfeeding mothers. The sample consisted of mothers who were breastfeeding, selected through accidental sampling. Data were collected using a structured questionnaire and analyzed descriptively. **Results:** The majority of respondents were aged 20–35 years (92.7%), had a high school education (56.1%), and were unemployed (96.3%). Based on maternal knowledge, most respondents (57.3%) had a sufficient understanding of the benefits of Moringa leaves in enhancing breast milk production. **Novelty:** This study highlights the importance of promoting maternal awareness regarding the nutritional and lactogenic potential of Moringa leaves as a natural, accessible, and culturally accepted method to support exclusive breastfeeding, contributing to improved maternal and child health outcomes in community-based health programs.

INTRODUCTION

One indicator of a country's well-being is the Infant Mortality Rate (IMR). The 2030 target is to end preventable newborn and under-five deaths, with all countries striving to reduce the Neonatal Mortality Rate to at least 12 per 1,000 live births and the Under-5 Mortality Rate to 25 per 1,000 live births. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) global strategy on infant and young child feeding states that preventing infant mortality is through proper feeding, namely exclusive breastfeeding for 6 months of life and the introduction of safe and nutritious complementary foods (MPASI) at 6 months of age, along with continued breastfeeding until 2 years of age or beyond [1].

Breast milk is the ideal nutrition for infants, containing nutrients most suited to their needs and a range of protective agents to combat disease. The first two years of a child's life are crucial, as optimal nutrition during this period reduces morbidity and mortality, reduces the risk of chronic disease, and promotes overall better development. Therefore, optimal breastfeeding, namely when the child is 0-23 months old, is very important because it can save the lives of more than 820,000 children under 5 years of age every year [2].

According to Ministry of Health data, the number of babies who receive exclusive breastfeeding in Indonesia is still below 50 percent. "This means that more than half of Indonesian children still do not have the right to exclusive breastfeeding," said Vice

President Ma'ruf Amin at the commemoration of World Breastfeeding Week 2020. Data and information on Indonesia's health profile show that exclusive breastfeeding in 2019 was still at 67.74% [3].

Various foods have been studied for their content that can increase breast milk production, one of which is moringa (*moringa oleifera*). Moringa, a tropical plant, is one that is used as a galactagogue in Asia. Moringa can also be easily found in various regions in Indonesia. This plant is referred to as "The Miracle Tree" because it contains a number of nutrients and active components of high value [4], [5].

Almost all parts of this plant, from the roots to the bark The stems, fruit, seeds, leaves, and flowers can be utilized [6], [7], [8]. However, the part of the Moringa plant that is generally utilized as a galactagogue is the leaves. Research shows that Moringa leaves contain polyphenol components, phytosterols, and alkaloids, so they can be utilized as galactagogues [9]. Moringa leaves are known to contain more polyphenol components than other parts [10].

Research shows that foods with protein, consisting of certain amino acids, can increase breast milk production [11]. Moringa leaves also contain calcium, a micronutrient known to influence prolactin hormone production [12]. Meanwhile, the polyphenols in moringa leaves inhibit dopamine receptors [13].

Breastfeeding is a physiological process that provides optimal nutrition to infants [14], [15]. To achieve optimal nutritional status, exclusive breastfeeding is essential for infants until they are 6 months old. A report by the Central Statistics Agency (BPS) shows that the percentage of exclusive breastfeeding for infants under 6 months reached 71.58% in 2021, a 1.96-point increase compared to 69.62% in 2020.

The general objective of this study was to determine the relationship between maternal knowledge about the consumption of Moringa leaf tea and increased breast milk production in the Payung Sekaki Community Health Center (Puskesmas) in Pekanbaru City.

Based on the above background, the author was interested in conducting this study on "The Relationship Between Mothers' Knowledge About the Consumption of Moringa Leaf Tea and Increased Breast Milk Production in the Payung Sekaki Community Health Center (Puskesmas) in Pekanbaru City."

RESEARCH METHOD

This research is quantitative, with a descriptive design, specifically describing the research objectives. The aim of this study was to determine mothers' knowledge about the benefits of moringa leaves in increasing breast milk production at the Payung Sekaki Community Health Center in Pekanbaru City.

The data collection method used in this study was interviews. An interview is a form of communication between two people involving one person and another, aimed at obtaining information from the other person by asking questions in the form of a questionnaire based on a specific purpose [16]. The type of data used in this study is

primary data, which is data obtained directly in the field by the researcher, who distributed the questionnaires.

RESULTS AND DISCUSSION

Result

The results of a study conducted at the Payung Sekaki Community Health Center in Pekanbaru City, which examined mothers' knowledge about the benefits of Moringa leaves in increasing breast milk production, are presented in the following table:

Table 1. Frequency Distribution of Respondent Characteristics at the Payung Sekaki Community Health Center in Pekanbaru City

No	Respondent Characteristics	Frekuensi	Persentase
1	Age		
	<20	2	2,4%
	20-35	76	92,7%
	>35	4	4,9%
	Total	82	100%
2.	Education		
	Primary Education (Elementary and Middle School)	19	23,2%
	Secondary Education (Vocational High School/High School)	46	56,1%
	Higher Education (Diploma 3, Bachelor's, Master's)	17	20,7%
	Total	82	100%
3.	Job		
	Working	79	96,3%
	Not Working	3	3,7%
	Total	82	100%

Source: Primary data (2025)

Based on Table 1 above, it is known that the majority of respondents (76 respondents) were aged 20-35 years (92.7%), some respondents (46 respondents) had a high school education (56.1%), and the majority (79 respondents) were unemployed (96.3%).

Research Variables

Table 2. Distribution of Mothers' Knowledge about the Benefits of Moringa Leaves in Increasing Breast Milk Production at the Payaung Sekaki Community Health Center in Pekanbaru City

Knowledge	Frequency	Percentage
Poor	33	40,2
Fair	47	57,3
Good	2	2,4
Total	82	100,00

Source: Primary data (2025)

Based on Table 2 above, the majority of respondents (47 respondents, 57.3%) had sufficient knowledge about the benefits of Moringa leaves in increasing breast milk production.

Discussion

Based on research conducted at the Payung Sekaki Community Health Center in Pekanbaru City in 2022, the majority of respondents (76 people) were aged 20-35 years (92.7%), some (46 respondents) had a high school education (56.1%), the majority (79 mothers) were unemployed (96.3%), and the majority (47 respondents) had sufficient knowledge about the benefits of Moringa leaves in increasing breast milk production (57.3%).

Knowledge is the result of human knowledge resulting from the combination or collaboration between the knowing subject and the object being known. It is everything known about a particular object [17]. Essentially, knowledge will continue to grow and vary according to the process of human experience. Essentially, one factor influencing breast milk production is a mother's knowledge of the benefits of Moringa leaves, which will influence her mindset and sufficient knowledge to consume Moringa leaves. Supported by the results of a 2021 study by Salsabila, N.L., on "Description of Breast Milk Flow After Giving Soy Milk and Moringa Leaf Vegetables to Breastfeeding Mothers in the Way Urang Kalianda Community Health Center Work Area, South Lampung," results were obtained from 17 respondents in each group. After giving soy milk, 10 respondents (58.8%) experienced smooth breast milk flow, and after consuming moringa leaf tea, 13 respondents (76.5%) experienced smooth breast milk flow.

The conclusion of this study is that consuming moringa leaf tea is more effective in increasing breast milk flow than consuming soy milk. According to the researchers' assumption, education significantly influences knowledge because the higher a person's education, the more knowledge they possess, and vice versa. In this study, the majority

of respondents had a high school education, resulting in a lack of knowledge due to their limited educational level, which limited their knowledge, especially regarding the benefits of moringa leaves in increasing breast milk production. In addition to education, employment is also one of the factors that can influence a person's knowledge. Working broadens your network and provides you with experience in the workplace.

In this study, the majority of respondents were unemployed, which reduces the knowledge gained about the benefits of moringa leaves in increasing breast milk production.

CONCLUSION

Fundamental Finding : The study concludes that most respondents, aged 20–35 years, with high school education and predominantly unemployed, possessed a sufficient level of knowledge regarding the benefits of Moringa (kelor) leaves in enhancing breast milk production. This indicates that awareness of natural lactation-promoting alternatives is present but remains at a moderate level. **Implication :** The findings emphasize the need for continuous health education and counseling programs in primary health centers to improve maternal knowledge about the nutritional and medicinal properties of Moringa leaves, thereby supporting the success of exclusive breastfeeding initiatives. **Limitation :** The study was limited to one health center with a descriptive design, thus restricting the ability to infer causality and generalize the results to broader populations. **Future Research :** Further studies should employ analytical or experimental designs with larger and more diverse samples to examine the direct impact of Moringa leaf consumption on breast milk production and to explore other influencing factors such as diet, maternal health, and lactation practices.

REFERENCES

- [1] M. E. Sunaryanto, M. D. Widodo, and A. H. Hanafi, "Hubungan Gaya Kepemimpinan Kepala Puskesmas Terhadap Kepuasan Pegawai Di Puskesmas Payung Sekaki Kota Pekanbaru Tahun 2020: RELATIONSHIP OF PUSKESMAS LEADERSHIP STYLE WITH EMPLOYEE SATISFACTION AT PUSKESMAS PAYUNG SEKAKI PUSKESMAS PEKANBARU CITY, 2020," *Media Kesmas (Public Health Media)*, vol. 1, no. 3, pp. 888–898, Dec. 2021, doi: 10.25311/kesmas.vol1.iss3.181.
- [2] S. Selvina, E. Fadlyana, and N. Arisanti, "Relationship between Exclusive Breastfeeding and Nutritional Status of Infants Aged 12 months," *Althea Medical Journal*, vol. 2, no. 4, Dec. 2015, doi: 10.15850/amj.v2n4.638.
- [3] R. Bainbridge and R. Tsang, "Optimal Nutrition in Low Birth Weight Infants," in *Childhood Nutrition*, CRC Press, 2020, pp. 33–42. doi: 10.1201/9781003067856-5.
- [4] D. Cavallini *et al.*, "The use of rumen-protected amino acids and fibrous by-products can increase the sustainability of milk production," *Front Vet Sci*, vol. 12, Sep. 2025, doi: 10.3389/fvets.2025.1588425.
- [5] N. Heller, S. Mader, and F. Bry, "More than the sum of its parts: designing learning formats from core components," in *Proceedings of the 34th ACM/SIGAPP Symposium on Applied Computing*, in SAC '19. ACM, Apr. 2019, pp. 2473–2476. doi: 10.1145/3297280.3297638.

- [6] C. T. Parker and G. M. Garrity, "Exemplar Abstract for Shouchella miscanthi (Shin et al. 2020) Joshi et al. 2022, Bacillus miscanthi Shin et al. 2020 and Alkalihalobacillus miscanthi (Shin et al. 2020) Gupta et al. 2020.," Apr. 2020, *NamesforLife, LLC*. doi: 10.1601/ex.36802.
- [7] M. Kashaninejad, "Valorization of plant biomass by emerging technologies: olive and moringa leaves," Universidad de Burgos. doi: 10.36443/10259/5996.
- [8] G. R. Velderrain-Rodriguez *et al.*, "Plant tissues as a source of nutraceutical compounds: fruit seeds, leaves, flowers, and stems," in *Plant Food By-Products*, Apple Academic Press, 2018, pp. 75–125. doi: 10.1201/b22352-4.
- [9] J. Kadhim Obaid Al-Hujayri, A. H. Alwan, and N. Imtair Al-garaawi, "ANATOMICAL STUDY OF MORINGA LEAF (MORINGA OLEIFERA LAM.) UNDER IRON FERTILIZATION," *Plant Arch*, vol. 21, no. supplement 1, Dec. 2020, doi: 10.51470/plantarchives.2021.v21.s1.418.
- [10] S. N. Sa'idah and G. G. Rahayu, "The Effect of Moringa Leaf Tea (*Moringa oleifera*) on Breast Milk Production in 0-6 Months Breastfeeding Mothers," *Oshada*, vol. 2, no. 1, pp. 234–244, Feb. 2025, doi: 10.62872/4f5r6r48.
- [11] B. Rachmat, D. Helper, S. Parulian Manalu, and E. Elsi, "Blood Lead Levels and their Relationship with Lead in Ambien Air in Children in the Area of used Lead-Acid Battery in Depok City, Indonesia," *Journal of Ecophysiology and Occupational Health*, vol. 20, no. 3 & 4, pp. 145–154, Dec. 2020, doi: 10.18311/jeoh/2020/26134.
- [12] C. H. Tampubolon, . Ronny, and F. Rahabeat, "Differences in the Incidence of Diarrhoea in Children Aged 6-24 Months Who Receive Exclusive and Non-Exclusive Breastfeeding," *Int J Health Sci Res*, vol. 11, no. 10, pp. 378–386, Nov. 2021, doi: 10.52403/ijhsr.20211048.
- [13] M. A. Tefera Belachew, "Predictors of Optimal Breastfeeding Practices Among Mothers Who Have Less Than 24 Months of Age Children in Misha District, Hadiya Zone, South Ethiopia," *J Pregnancy Child Health*, vol. 02, no. 04, 2015, doi: 10.4172/2376-127x.1000182.
- [14] M. Rao and B. J. G. Pereira, "Optimal anemia management reduces cardiovascular morbidity, mortality, and costs in chronic kidney disease," *Kidney Int*, vol. 68, no. 4, pp. 1432–1438, Oct. 2005, doi: 10.1111/j.1523-1755.2005.00554.x.
- [15] "Infant mortality 2010: Deaths per 1 000 live births," Nov. 2010, *Organisation for Economic Co-Operation and Development (OECD)*. doi: 10.1787/20758480-2010-table9.
- [16] M. Jackson, "How Much Home Does a Person Need?," in *Between One and One Another*, University of California Press, 2012, pp. 69–78. doi: 10.1525/california/9780520272330.003.0005.
- [17] D. Perltz, "Knowing and being known," in *Psychoanalytic Perspectives on Knowing and Being Known*, Routledge, 2019, pp. 89–100. doi: 10.4324/9780429454295-10.

* **Sumia Arsita Sari (Corresponding Author)**
Helvetia Health Institute Pekanbaru, Indonesia
Email: sumiaarsitasari@helvetia.ac.id
