MEDIA INFORMATION
Center for Research and Community Service
Health Polytechnic of the Ministry of Health Tasikmalaya
https://ejurnal2.poltekkestasikmalaya.ac.id/index.php/bmi

The Influence of Health Education About Complementary Foods for Breast Milk (MPASI) on the Knowledge and Attitudes of Mothers of Babies Aged 0-6 Months

Sariestya Rismawati[1], Herni Kurnia[2]

[1]Department of Midwifery, Politeknik Kesehatan Tasikmalaya

***Co-responding author:**

sariestya77@gmail.com

Article Info
Submitted 21 01 2025
Revised 15 03 205
Published 27 06 2025

Keywords:
Baby 0-6 months, complementary foods for breast milk, health education, nutrition

P-ISSN : 2086-3292
E-ISSN : 2655-9900

National Accreditation:
Sinta 4

Abstract

Background: Infant development and growth are natural processes that can be supported by good nutrition coverage. Providing complementary foods for breast milk is an effective way to improve development and infant growth from the age of 6 months. However, in reality, there are still many mothers who do not know about infant nutrition, causing infant nutritional needs to be unmet. Therefore, health education is very important to improve mothers' knowledge and attitudes so that infant nutritional needs are met. **Objective:** To determine the effect of health education about complementary foods for breast milk on knowledge and attitudes. **Method:** This study used a pre-experimental one-group pre-test post-test design method. This study's population was mothers with infants aged 0-6 months, for a total of 29 people. The sampling technique used a purposive sampling technique with a total of 25 people. The data analysis technique used univariate tests and the Paired Sample T-test. **Results:** The results of the study before health education was given showed that mothers' knowledge regarding the provision of complementary foods was in the sufficient category, namely 14 people (56%), while the mothers' attitudes were in the positive category, namely 15 people (60%). After being given health education, the mothers' knowledge regarding the provision of complementary foods increased to the good category, namely 20 people (80%), and positive category attitude, namely 23 people (92%). **Conclusion:** From the results of the study, it can be concluded that health education greatly influences the increase in mothers' knowledge and attitudes regarding complementary foods.

INTRODUCTION

Nutrition plays a crucial role in an infant's growth and development, as it is strongly linked to both intelligence and overall health. Babies will be more susceptible to infection if they are malnourished. The infancy and toddler stages are critical periods of growth and development,

encompassing physical. Growth is influenced by many factors such as heredity, food, health, and a good environment (Mirania et al, 2021).

Based on 2023 data from the World Health Organization (WHO), child malnutrition remains a significant issue, with 22.3% (148.1 million) of children experiencing stunting, 6.8% (45 million) suffering from wasting, and 5.6% (37 million) being overweight (WHO, 2023). Based on a report issued by UNICEF, the problem of malnutrition in children in Indonesia is estimated at 7.8 million, so UNICEF positions Indonesia as one of the The five countries with the highest number of malnourished children remain a major concern. According to the 2023 Basic Health Research (Riskesdas), the prevalence of malnutrition and undernutrition in Indonesia ranged between 6.2% and 6.5%. The prevalence of malnutrition and undernutrition in West Java in 2023 was 4.6%-5.4% (Kemenkes, 2023). The prevalence of malnutrition and undernutrition in Tasikmalaya Regency in 2022 was 99,070 children or 4.06% (Dinkes, 2023).

Meanwhile, based on Total Diet Survey (SDT) data, there are still 48.9% of toddlers who Have an energy intake that falls below the recommended Energy Adequacy Rate (AKE). (70%- <100% AKE) and 6.8% of toddlers have very low energy intake (<70% AKE). In addition, 23.6% of toddlers have a protein intake below the recommended Protein Adequacy Rate (AKP) (<80% AKP). Besides insufficient energy and protein intake, the variety of foods given to toddlers is also limited, with only 52.5% meeting dietary diversity standards, according to the 2022 Indonesian Nutritional Status Survey (SSGI) (Kemenkes, 2021).

Providing appropriate breast milk and complementary foods (MP-ASI) are one of the priority efforts in developing the quality of human resources (Saputri, 2019). Breast milk (ASI) is the most important nutrient as a source of energy for babies from 0 to 23 months of age. ASI meets all the nutritional needs of babies, even its nutritional content is reported to reach one and a half of the energy needed by babies (Kristiyanti, 2021). Likewise, in sick conditions, there are many active substances that strengthen The infant's immune system, which helps lower the risk of mortality in babies and young children, but breastfeeding has not been optimally carried out by mothers (Kementrian Kesehatan, 2019).

Complementary foods given after the exclusive breastfeeding process are useful for meeting good nutrition and nutrition to improve the brain and growth and development. According to Mufida in Mirania and Louis (2021), providing good MP ASI can help the development and growth of babies properly. This is important for the development of intelligence and physical growth during this period (Kementrian Kesehatan K. , 2023). The right intake of complementary foods will directly affect the nutritional status of children. As many as 71.5% of children who are malnourished do not get adequate intake of complementary foods (KIA, 2023). In preventing various nutritional disorders and psychosocial problems, supporting behavior and parental support is essential, particularly the knowledge and skills of mothers in preparing and providing complementary foods (Novianti et al, 2021).

According to previous research, Sukasukur Village is one of the focal areas for stunting intervention, with a prevalence of 27.1%. This issue is closely linked to mothers' limited knowledge about the importance of exclusive breastfeeding, as well as the preparation and provision of nutritious complementary foods and snacks for toddlers. A preliminary study conducted on six mothers with infants aged 6–23 months further highlights this concern, it was found that 2 mothers gave full instant complementary foods, 4 mothers gave instant complementary foods and home-cooked food and all mothers did not know the process of making good and correct complementary foods. 3 out of 6 mothers also gave complementary foods Before the baby reached exactly 6 months of age, because the baby was fussy. Based on the results of the nutrition officer's report, most mothers give fortified porridge or rice porridge alone to their children without vegetables, fish, and fruit and

not according to the age of giving MP-ASI and there are mothers or family members who give rice water or honey to babies who are not yet 6 months old.

One of the factors causing inappropriate complementary feeding is knowledge (Kumalasari, 2019). The level of knowledge possessed by the mother will reflect the pattern of complementary feeding by the mother to the toddler (Fatimawati et al, 2021). Proper complementary feeding will affect the growth and development of the baby and its intelligence. However, inappropriate complementary feeding to children will cause nutritional problems in children (Kristiyanti, 2021). Knowledge will determine and influence a person's attitude, when a mother has good knowledge, her attitude is likely to be positive. Attitude is a person's internal reaction or response to a stimulus or object and is not an innate trait, but is learned and formed based on experience and practice throughout the individual's development. Therefore, experience and information are needed to achieve a supportive attitude in the mother herself (Telly Katharina et al, 2016). Thus, attitude is not an action or activity but rather a tendency to act, behave, or take on a role. Several factors influence a person's attitude, including age, occupation, education, knowledge, and parity. If some mothers have negative attitudes, their actions and behaviors are likely to be unfavorable, increasing the risk of nutritional problems in children (Olsa et al, 2018).

Based on this background, researchers are interested in researching the Influence of Health Education About Complementary Foods for Breast Milk (MPASI) on the Knowledge and Attitudes of Mothers of Babies Aged 0-6 Months in Sukasukur Village, Cisayong District.

METHOD

This study employs a quantitative research design using the Pre-Experimental One-Group Pre-Test Post-Test method. The research begins with initial data collection (pre-test) to assess the knowledge and attitudes of mothers with infants aged 0-6 months regarding Complementary Feeding (MPASI). Following this, health education is provided, and final data collection (post-test) is conducted to evaluate any changes in mothers' knowledge and attitudes on the same topic. The study takes place in Sukasukur Village, Cisayong District, Tasikmalaya Regency, from September to October 2024.

The population in this study consisted of 29 mothers with infants aged 0-6 months. The research sample was selected using purposive sampling based on specific criteria, namely infants within the age range of 0-6 months in healthy condition and still given exclusive breastfeeding (not mixed with formula milk). The number of samples based on the criteria was 25 people. The collection of research data was carried out by distributing questionnaires regarding MPASI to respondents twice, namely before receiving health education (pre-test) and after receiving health education (post-test). The data collected were regarding the identity and characteristics of respondents, knowledge, and attitudes of respondents regarding the provision of MPASI. The data analysis technique involved univariate analysis and bivariate analysis using the paired sample T-test.

RESULT AND DISCUSSION

RESULT

A. Respondent Characteristics

The results of the study on the characteristics of mothers showed that 17 people (68%) of mothers were in the age range of 20-35 years and 8 people (32%) were aged> 35 years. 1 person (4%) of mothers graduated from elementary school, 10 people (40%) graduated from junior high school/equivalent, 12 people (12%) graduated from high school/equivalent and 2 people (8%) graduated from D3. As many as 2 people (8%) mothers work as civil servants, 5 people (20%)

private employees/entrepreneurs, 6 people (24%) laborers, and 12 people (48%) housewives. The results of the baby characteristics show that 6 babies (24%) are male and 19 babies (76%) are female. 2 babies (8%) are <1 month old, 11 babies (44%) are 1-3 months old and 12 babies (48%) are 4-6 months old. The results can be seen in Tables 1 and 2.

Table 1. Mother's and Infant Characteristics

No	Characteristics	N	%
Mother			
1	Mother's Age		
	a. 20-35 years	17	68%
	b. >35 years	8	32%
2	Mother's Education		
	a. Elementary School	1	4%
	Graduated	10	40%
	b. Junior High School	12	48%
	Graduated	2	8%
	c. High School Graduated		
	d. D3/S1/S2/S3 Graduated		
3.	Mother's Occupation		
	a. PNS/TNI/Polri	2	8%
	b. Private	5	20%
	Employee/Entrepreneur	6	24%
	c. Laborer	12	48%
	d. Housewife		
Infant			
1.	Gender		
	a. Male	6	24%
	b. Female	19	76%
	Infant Age		
	a. <1 months	2	8%
	b. 1-3 months	11	44%
	c. 4-6 months	12	48%

B. Univariate Analysis

The univariate test results on maternal knowledge revealed that before receiving health education, 3 people (12%) had good knowledge, 14 people (56%) had moderate knowledge, and 8 people (32%) had low knowledge. After the health education, 20 people (80%) demonstrated good knowledge, while 5 people (20%) fell into the moderate category. The results can be seen in Table 2.

Table 2. Mother's Knowledge Level

No	Knowledge	Before		After	
		N	%	N	%
1	Good	3	12	20	80
2	Enough	14	56	5	20
3	Less	8	32	-	-
	Score	**25**	**100**	**25**	**100**

*Univariate test

Furthermore, the results of the univariate test on maternal attitudes showed that Before receiving health education, 15 mothers (60%) exhibited a positive attitude and 10 people (40%) had a negative attitude about giving MPASI. After being given health education, 23 people (92%) had a positive attitude and 2 people (8%) still had a negative attitude. The results can be seen in Table 3.

Table 3. Mother's Attitude

No	Attitude	Before		After	
		N	%	N	%
1	Positive	15	60	23	92
2	Negative	10	40	2	8
	JUMLAH	**25**	**100**	**25**	**100**

*Univariate test

C. Bivariate Analysis

The bivariate test results indicated that the provision of health education could increase the average knowledge of mothers by 3.8, namely before being given health education the average was 12.72 and increased to 16.52. The T-test results showed a p-value of 0.0001, indicating a statistically significant difference in maternal knowledge before and after the intervention given health education about providing complementary feeding. The next test result is the mother's attitude, the results show that providing health education can increase the average mother's attitude by 7.32, namely before being given health education it was 51.84 and increased to 58.16. The T-test results obtained a p-value of 0.001 indicates a statistically significant difference in the value of the mother's attitude before and after being given health education about providing complementary feeding. The results can be seen in Table 4.

Table 4. The Effect of Health Education on Maternal Knowledge

Variable	Interventions	Mean	SD	P-Value
Knowledge	Before	12,72	1,90	
	After	16,52	1,35	0,001
Attitudes	Before	51,84	7.73	
	After	59,16	7	

*Bivariate Test

DISCUSSION

The study results indicated that before receiving health education, most mothers had a moderate level of knowledge about complementary feeding, with 14 people (56%) falling into this category. Additionally, the majority of mothers (15 people or 60%) displayed a positive attitude. These findings align with previous research by Sangadji & Veronika (2021), which highlighted differences in understanding of complementary feeding before and after receiving counseling interventions.

This lack of maternal knowledge could be caused by mothers not getting complete information regarding the introduction of complementary feeding.. The provision of complementary foods is considered something normal, meaning that after 6 months of the baby being given breast milk, the baby is given complementary foods according to the menu made by the mother without paying attention to the nutritional composition of the complementary foods because the mother does not know about it (UNICEF, 2021). In addition, the mother's knowledge regarding the arrangement of the texture of complementary foods according to the baby's age is also still low. If this is left for a long time, it is not impossible that it will affect the baby's metabolism and also affect its growth and development (WHO, 2020).

Besides knowledge, a mother's attitude also plays a crucial role in complementary feeding. The study results showed that while 15 mothers had a positive attitude toward complementary feeding, 10 still exhibited a negative attitude. This suggests that some mothers may not yet provide complementary foods according to their baby's needs in terms of timing, texture, and composition. For instance, many mothers continue to introduce complementary foods before their baby reaches 6 months of age (Budiman et al, 2023).

Lack of knowledge and negative attitudes are factors that can encourage mothers to give complementary foods too early. The more information that postpartum mothers get about greater awareness of the dangers of early complementary feeding reduces the likelihood of introducing it too soon. Conversely, limited knowledge about these risks increases the chances of postpartum mothers providing complementary foods prematurely. These findings align with Sediaoetama (2021), who stated that an individual's level of nutritional knowledge influences their attitudes and behaviors in food selection, ultimately impacting nutritional status. Similarly, Suhardjo (2020) emphasized that one of the causes of nutritional disorders is a lack of knowledge about nutrition and the inability to apply this information in daily life (Mitra et al, 2018).

After being given health education, most mothers had good knowledge about complementary feeding, with 20 people (80%) falling into this category, while the majority also exhibited a positive attitude, totaling 23 people (92%).

A mother's level of knowledge about complementary feeding plays a crucial role in improving family well-being, especially for children in the growth phase. Mothers with high knowledge levels tend to follow the advice of midwives or health workers, such as posyandu cadres, recognizing the significant benefits of proper complementary feeding for child development. Conversely, mothers with limited knowledge about early complementary feeding may introduce it too soon, potentially posing risks to the child's health if not aligned with medical recommendations. Therefore, it is essential to educate mothers on both the knowledge and attitudes needed to prepare complementary foods with appropriate quality and quantity. Quality is determined by food variety and diversity, while quantity is assessed based on feeding frequency (Saputri et al, 2019).

Attitudes are shaped by various factors, including personal experiences, the influence of significant individuals, cultural background, mass media, educational and religious institutions, and emotions. Additionally, research by Windiyati & Sadriatanu (2020) suggests that providing information through counseling is one of the factors that can influence a mother's attitude. The study findings revealed that out of 25 mothers, initially, only 15 people had a positive attitude, increasing to 23 people. This can also be indicated because of the mother's increased knowledge (Sangadji et al, 2021).

Nutritional problems in children are greatly influenced by the practice of feeding by mothers or caregivers. There are still many practices of providing complementary foods that focus only on the type of food and frequency of giving, while other factors are less considered. Complementary foods are introduced gradually based on the baby's age and digestive capability, both in terms of quantity and form. The form of complementary foods must also be known by the mother or caregiver so that the baby can accept and digest the food so that it is effective in helping growth and development. Some forms of complementary foods are pureed food, soft food, and family food. Complementary foods must be given adequately, containing complex multivitamins such as carbohydrates, protein, vitamins, and micronutrients that are sufficient to meet the child's growth needs (Sangadji et al, 2021).

Before giving complementary foods, parents or caregivers should know and understand the principles of giving complementary foods. Parents or caregivers must learn how to choose food ingredients for complementary foods, process complementary foods, and how give complementary foods properly so that children eat with gusto (Telly Katharina et al, 2016). Complementary foods

are made from a variety of food ingredients, they do not need to be expensive, and even local food ingredients available in the surrounding environment can be used to make complementary foods. Unfortunately, the pattern of giving complementary foods to children is still a problem because many parents or caregivers do not know about it, even though this is an important point in the child's life stage (Windiyati et al, 2020).

Health promotion activities are very important to increase mothers' knowledge of providing complementary foods (MP-ASI). Complementary foods are foods or drinks that contain nutrients given to babies or children to meet their nutritional needs, according to WHO, only 40% of babies in the world receive exclusive breastfeeding while 60% of other babies have received complementary foods when they are less than 6 months old (Olsa et al, 2018).

Health education is essential for improving knowledge, attitudes, and skills related to health. This process occurs through continuous and interactive engagement between individuals and their environment. Through health education, people transition from a state of unawareness to awareness. Various factors influence a person's knowledge, including education, information sources, socio-cultural and economic conditions, environment, experience, and age (Sangadji et al, 2021).

CONCLUSION AND RECOMMENDATION

CONCLUSION

From the study results, it can be concluded that health education greatly influences the increase in mothers' knowledge and attitudes regarding MPASI.

SUGGESTIONS

Health education plays a crucial role in enhancing knowledge, attitudes, and skills related to health. It is essential for all health workers, especially midwives, to educate mothers about complementary feeding (MPASI) starting from pregnancy. This approach helps mothers better understand their baby's nutritional needs.

ACKNOWLEDGEMENTS

Thanks are addressed to the Respondents and Poltekkes Kemenkes Tasikmalaya Tasikmalaya who have helped, participated, and facilitated this research.

REFERENCES

Budiman R. A. (2023). *Kapita Selekta Kuisioner Pengetahuan Dan Sikap Dalam Penelitian Kesehatan.* Jakarta: Salemba Medika. Diambil kembali dari https://123dok.com/document/y4x9pvvz-faktor-yang-mempengaruhipengetahuan-budiman-dan-riyanto.html%

Dinkes Jabar (2023). *Profil Kesehatan Provinsi Jawa Barat 2023.* Tasikmalaya: Dinas Kesehatan Jawa Barat.

Fatimawati, Arini D, Hastuti P, Ernawati D, SaidaH Q, Budiarti A, Faridah. (2021). Edukasi Kesehatan Untuk Meningkatkan Pengetahuan Ibu Tentang Pemberian MP ASI pada Bayi dan Balita di Kelurahan Sukolilo Surabaya. *Prosiding Semnas Abdimas, 1*(1), 152–160. doi:https://doi.org/10.33086/snpm.v1i1.918

Kemenkes. (2021). *Hasil SSGI Tingkat Nasional, Provinsi, dan Kabupaten/Kota Tahun 2021 Studi Status Gizi Indonesia. 2021* (Vol. 2). Kemenkes RI. Diambil kembali dari https://www.badankebijakan.kemkes.go.id/buku-saku-hasil-studi-status-gizi-indonesia-ssgi-tahun-2021/

Kemenkes RI (2023). *Petunjuk Teknis Pemberian Makanan Tambahan (PMT) Berbahan Pangan Lokal Untuk Balita dan Ibu Hamil.* Jakarta: Kementrian Kesehatan RI.

Kementrian Kesehatan, K. (2019). *Pekan ASI Se-Indonesia.* Jakarta: Kemenkes RI. doi:https://promkes.kemkes.go.id/

Kementrian Kesehatan, K. (2023). *Petunjuk Teknis Pemberian Makanan Tambahan (PMT) Berbahan Pangan Lokal untuk Balita dan Ibu Hamil. Kemenkes.* Kementrian Kesehatan RI. doi:https://kesmas.kemkes.go.id/assets/uploads/contents/others/20230516_Juknis_Tatalaksa

Direktorat Gizi KIA. (2023). *Pemberian Makanan Tambahan (PMT) Berbahan Pangan Lokal untuk Balita dan Ibu Hamil. .* Jakarta: Kementrian Kesehat Republik Indonesia.

Kristiyanti. (2021). Revitalisasi Kader Asi Dalam Program Pranatal Untuk Keberhasilan Menyusui. *Jurnal LINK, 17*(1), 1-6. doi:https://doi.org/10.31983/link.v17i1.5728.

Kumalasari, S. &. (2019). Pemberian Makanan Pendamping ASI (MPASI) Sesuai dengan Usia Bayi Di Desa Bawang Kecamatan Pesantren Kota Kediri.). *Journal of Health Science (Jurnal Ilmu Kesehatan), 4*(2), 7-11.

Mirania, S Louis. (2021). Hubungan Pemberian Makanan Pendamping ASI dengan Status Gizi pada Anak Usia 6-24 Bulan. *Citra Delima: Jurnal Ilmiah STIKes Citra Delima Bangka Belitung*, 45-52.

Mitra , M., Nurlisis, N., & Destriani, R. (2018). Jenis dan Keberagaman Makanan Pendamping Air Susu Ibu dengan Kejadian Stunting pada Anak Usia 6-24 bulan. Prosiding Widya Karya Pangan Dan Gizi., *1*, hal. 111–119.

Novianti, Ramdhanie, G. G., & Purnama, D. (2021). *Faktor-Faktor yang Mempengaruhi Pemberian Makanan Pendamping ASI (MP ASI) Dini – Studi Literatur.*

Olsa, E. D., Sulastri, D., & Anas, E. (2018). Hubungan Sikap dan Pengetahuan Ibu Terhadap Kejadian Stunting pada Anak Baru Masuk Sekolah Dasar di Kecamanatan Nanggalo. *Jurnal Kesehatan Andalas, 6*(3), 523–529. doi:https://doi.org/10.25077/jka.v6i3.733

Sangadji N. W., & Veronika, E (2021). Upaya Meningkatkan Pengetahuan Ibu Dalam Pemberian Makanan Pendamping ASI (MpASI) Di Desa Rabutdaiyo Tahun 2021. *Jurnal Ilmiah Kesehatan Masyarakat : Media Komunikasi Komunitas Kesehatan Masyarakat, 13*(4), 192–196. doi:https://doi.org/10.52022/Jikm.V13i4.254

Saputri. (2019). Pengaruh Promosi Kesehatan Terhadap Pengetahuan Ibu Tentang Pemberian Makanan Pendamping ASI (MP-ASI) Di Puskesmas Alusi Kecamatan Kormomolin Kepulauan Tanimbar Maluku Tahun 2019. *Journal for Quality in Women's Health, 3*. doi:https://doi.org/10.30994/jqwh.v3i2.70.

Saputri (2019). Pengaruh Promosi Kesehatan Terhadap Pengetahuan Ibu Tentang Pemberian Makanan Pendamping ASI (MP-ASI) Di Puskesmas Alusi Kecamatan Kormomolin Kepulauan Tanimbar Maluku Tahun 2019. *Journal for Quality in Women's Health, 3*, 156-164. doi:https://doi.org/10.30994/jqwh.v3i2.70

Telly Katharina et al, K. I. (2016). Hubungan Antara Pengetahuan Ibu Dengan Sikap Terhadap Tumbuh Kembang Anak Usia 0-24 Bulan. *Jurnal Kebidanan, 6*(2).

UNICEF. (2021). *Levels and Trends in Child Malnutrition : Key Findings of the 2021 edition of the joint child malnutrition estimates.* New York: United Nation Children's Fund.

WHO. (2020). *WHO Guideline for complementary feeding of infants and young children 6–23 months of age.* World Health Organization. doi:https://iris.who.int/bitstream/handle/10665/373358/9789240081864-eng.pdf?sequence=1

WHO, W. H. (2023). *WHO, UNICEF, UNFA, The World Bank. Colostrum.* Geneva: Health Organization.

Windiyati, & Sadriatanu, D (2020). Pengaruh Penyuluhan Gizi Terhadap Pengetahuan Dan Sikap Ibu Dalam Pemberian Makanan Pendamping ASI Di Kecamatan Matan Hilir Utara Kabupaten Ketapang Tahun 2020. 500–508.