

## Differences in Mother's Knowledge of Infant and Child Feeding Practices at CSI Formoza 2-Dili-Timor Leste

Joaninha Belo Ximenes<sup>1</sup>, Ida Sofiyanti<sup>2</sup>  
<sup>1,2</sup>Universitas Ngudi Waluyo

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### Article

#### Article History

Submitted:2022-01-28

Accepted: 2022-03-17

Published:2022-03-30

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#### Keywords:

Baduta, PMBA,  
Knowledge, Flipchart.

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### Abstract

Breast milk is a transition process from intake which was originally only in the form of milk to semi-solid food. One of the factors that influence the practice of introduction and feeding of infants and children (PMBA) is the mother's knowledge of complementary foods for breastfeeding babies. Health education through the media can increase mothers' knowledge about the practice of PMBA. The purpose of this study was to determine the difference in knowledge of mothers who have Baduta about PMBA, before and after being given health education using flipchart media in the CSI Formoza 2/Vera Cruz work area, Dili Timor Leste. This research is a type of quantitative research with a pre-experimental design, one group pretest-posttest design. The sampling technique was purposive sampling technique, using inclusion and exclusion criteria. The research location was conducted in the CSI Formoza 2 Working Area (Suco Caicoli, Lahane Occidental, and VilaVerde). The number of samples is 55 mothers who have Baduta. The media used in providing the information is using flipcharts/flipcharts. The instrument used is a questionnaire. The results of the univariate analysis showed an increase in knowledge after being given information about PMBA, namely the average value of the pretest was 33.16 and after being given information the mean posttest was 35.09. Bivariate analysis, pretest, and posttest residual values were declared normally distributed. To find out the difference in knowledge, a different test (Paired Sample t-test) was carried out, with the result that  $H_a$  was accepted, meaning that there was a difference in the mother's knowledge about PMBA. There is a difference in mothers' knowledge about PMBA before and after being given health education using flipchart media, which is effective in increasing mothers' knowledge about PMBA. Suggestions are given so that in the implementation not only demonstration cooking is given, but important points in PMBA must also be explained

### Abstrak

Pemberian MP-ASI merupakan proses transisi dari asupan yang semula hanya berupa susu menuju makanan semi padat. Salah satu faktor yang

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Corresponding author:

Joaninha Belo Ximenes, Ida Sofiyanti

ninabeloximenes@gmail.com, idasofiyanti@gmail.com

The 1st International Conference on Health, Faculty of Health

Universitas Ngudi Waluyo

mempengaruhi praktik PMBA adalah faktor pengetahuan ibu tentang makanan pendamping ASI untuk bayi. Pendidikan kesehatan melalui media dapat meningkatkan pengetahuan ibu tentang praktik PMBA. Tujuan penelitian ini untuk mengetahui perbedaan pengetahuan ibu yang memiliki Baduta tentang PMBA, sebelum dan sesudah diberikan pendidikan kesehatan menggunakan media lembar balik di wilayah kerja CSI Formoza 2/Vera Cruz Dili Timor Leste. Penelitian ini adalah jenis penelitian kuantitatif dengan desain pra eksperimen one group pretest posttest design. Teknik pengambilan sampel dengan teknik Purposive Sampling, menggunakan kriteria inklusi dan eksklusi. Lokasi penelitian dilakukan di Wilayah Kerja CSI Formoza 2 (Suco Caicoli, Lahane Osidental dan VilaVerde). Jumlah sampel sebanyak 55 ibu yang memiliki Baduta. Media yang digunakan dalam pemberian informasi menggunakan lembar balik/flipchart. Instrumen yang digunakan berupa kuesioner. Hasil analisa univariat ada peningkatan pengetahuan setelah diberikan informasi tentang PMBA, yaitu nilai rata-rata pretest 33.16 dan setelah diberikan informasi mean posttest 35.09. Analisa bivariat, nilai residual pretest dan posttest dinyatakan berdistribusi normal. Untuk mengetahui perbedaan pengetahuan dilakukan uji beda (Uji Paired Sample t-test), dengan hasil  $H_0$  diterima, yang artinya ada perbedaan pengetahuan ibu tentang PMBA. Ada perbedaan pengetahuan ibu tentang PMBA sebelum dan sesudah me diberikan pendidikan keehatan menggunakan media flipchart, efektif dalam meningkatkan pengetahuan ibu tentang PMBA. Saran yang diberikan agar dalam implementasi bukan hanya diberikan demonstracy cooking saja, namun point point penting dalam PMBA juga harus dijelaskan.

### Introduction

Complimentary food for breast milk (MP-ASI) is a transition process from solely milk-based intake to semi-solid foods. The introduction and feeding of infants and children (PMBA) must be done gradually, both in form and quantity, according to the digestive ability of the baby/child. The function of MP-ASI is not to replace breast milk, but on the contrary to meet the nutritional needs of infants until the baby is 24 months old (Rohmani, 2010).

Improper PMBA practices can lead to malnutrition. Data collected by WHO states that Timor Leste is included in the region with the highest prevalence of

stunting in the Southeast Asia/South East Asian Region, at 50.5%. In second place is India (38.4%) and third is Indonesia with 36.4%. The number of stunting prevalence, which is still above 20%, has resulted in not achieving the WHO target which must be below 20% for the prevalence of stunting in developing countries (Ministry of Health Data and Information Center, 2018).

Based on the Demographic and Health Survey data conducted in 2016, the results were that 46% of toddlers experienced stunting in their physical and cognitive development. The prevalence of underweight is 24 percent. Timor-Leste has the third-highest prevalence of



stunting in the world, higher than all other G7+ countries, and a significant outlier relative to its level of economic development. (DHS-TL, 2018). Based on data, the Preliminary Results of the Timor-Leste Food and Nutrition Survey 2020 showed a decreasing trend of malnutrition in children aged 0-59 months compared to the previous survey conducted in 2013. The survey also showed progress in a number of other indicators. Stunting in children 0-59 months decreased from 50.2 percent to 46 percent; wasting decreased from 11 percent to 8.6 percent (TLFNS, 2020).

The high rate of nutritional problems among children in the Dili District, particularly in the Formosa 2-Dili SSK area, is one of the problems that are still a priority for the program. There are many factors that affect nutritional status and weight gain, one of these factors is the PMBA factor. Setyowati, Sofiyanti & Windayanti (2018), stated the results of their research, namely the socialization of feeding practices to under-fives are very important because based on research that there are still about 45% of infants over 6 months of age do not get the right MP-ASI, so it is necessary to do health education about MP-ASI to Baduta's mother. Mother's knowledge increased after being given information related to feeding practices to Baduta mothers.

Mother's knowledge is an important factor for the success of complementary feeding to infants. Because with good knowledge, mothers know when the right time to give, and can change behavior for the better. According to Wawan and Dewi (2015), several factors that influence knowledge include internal factors consisting of age, education, occupation, and gravidity. External factors consist of environmental, socio-cultural, and sources of information.

Sources of information can be provided through health education. Health education is a scientific method or a modern method used to help individuals

or groups of people in improving their behavioral abilities to achieve optimal health. The provision of health education will be easier to understand by using appropriate and easily accepted learning media so that it can foster motivation and behavior change in the practice of feeding infants and children. The effectiveness of providing health education is evidenced by the difference in knowledge before and after treatment (Efendi, 2009). In this study, researchers used the media to assist in providing health education. The media used is a flipchart.

The results of a preliminary study conducted by researchers, interviews with Nutrition program holders in the Dili District, revealed that for the PMBA Program there are already guidelines for program implementation that have been printed in the form of books, posters, Mp-ASI recipe books, and others, but for socialization regarding PMBA which has not been carried out optimally. In the SISC a service, it is more direct to Demonstration Cooking which is carried out in general, not specific according to the age of the baby/child. Counseling on PMBA that was given during the service explained, in general, the importance of nutritional intake and how to process food with local ingredients, but the important points in PMBA had not been explained in detail.

Interviews were conducted with several mothers who had Baduta, the majority had already given MP-ASI for their babies, some were given at the right age, but some were given too soon. The food is prepared in accordance with the experience and information obtained. Some still provide processed food for their babies, for more practical reasons. The information obtained, on average, mothers have not received information about PMBA that is appropriate, precise, and fulfills the recommended points/requirements. Mothers do not know how many portions, types, frequencies, and appropriate forms can



be given to children according to the child's age

### Method

This research is a type of quantitative research with a pre-experimental one-group pretest-posttest design. The sampling technique used was the purposive sampling technique. For the sample size, the slovin formula was used. The sample size in the three villages was not taken proportionally, due to limitations in data, where there was no specific data on total infants with an age range of 6-24 months, so inclusion and exclusion criteria were used. . The research location was conducted in the CSI Formoza 2 Working Area (Suco Caicoli, Lahane Occidental and VilaVerde). The number of samples is 55 mothers who have Baduta who live in the village where the study was conducted.

The media used is a flipchart/flipchart. The instrument used is a questionnaire, which was adapted from a questionnaire that has been validated by Sofiyanti, et al (2019). Before going down to do the research, the researcher conducted a validation test and a reliability test on the instrument to be used. The validity test was carried out at SSK Cristo Rei-Becora with a total of 25 respondents who had the same characteristics as the research sample. In this study, the Product

Moment correlation coefficient is used as a validation test. The Beach item consists of 10 unfavorable statements and 36 favorable statements. The results of the validity test of these 46 statements indicate that 41 items are declared valid, and there are 5 items that are invalid. Five invalid statements were represented by other items, so they were removed. The reliability test in this study used the Alpha Cronbach method. The reliability test shows that all valid items are declared reliable.

### Results and Discussion

Based on the results of data processing, the characteristics of the respondents were distributed based on the mother's age, the age of the baby owned by the mother, the mother's occupation, and also the mother's last education. In addition to the distribution of the characteristics of the respondents, distribution is also carried out crosstab between the characteristics and knowledge of mothers. The variables studied were knowledge of mothers before and after being given health education about PMBA which was obtained through pre and post-test questionnaires. Furthermore, data processing is carried out and the results are presented in the form of distribution tables, frequencies, and percentages as follows:

### Description of the distribution of the characteristics of respondents

Table 1. Description of the characteristics of respondents

Mother's Characteristics	f	%
Mother's Age		
Late Adolescence (17-25 years)	14	25.5
Early Adults (26-35 years)	32	58.2
Late Adults (36-45 years)	8	14.5
Early Elderly (46-55 years old)	1	1.8
Baby's Age (infant age of the respondent)		
6-8 months	16	29.1
9-12 months	17	30.9
12-23 months	22	40
Mother's Education		
Not completed in primary school	5	9.1
Basic Education (graduated from elementary/junior high school)	6	10.9
Secondary Education (Graduated High School)	22	40
Higher Education (Diploma-Bachelor)	22	40



Mother's Characteristics	f	%
Mother's Job		
IRT	24	43.6
Laborer	3	5.5
Private	10	18.2
civil servant	18	32.7

Based on the table above, it can be seen from a total of 55 respondents, the majority of the range in early adulthood (26-35 years) as many as 32 people (58.2%), and the least is in the early elderly age (46-55 years) only 1 person (1.8). %). Classification characteristics The age of the respondents used in this study is according to the Ministry of Health (2009), namely early adolescence (17-25 years), early adulthood (26-35 years), late adulthood (36-45 years), and early elderly (46-55 years). Early adulthood is a period of adaptation to new lifestyles and social expectations. This age is a reproductive age where a woman has the task of developing early adulthood, namely starting to live in a family or family life, managing the household, and time spent caring for and educating children (Iqbal, 2007).

Some studies also describe characteristics of the same respondents, including research conducted by Fauziah in 2013 where the majority of research respondents were mothers with early adulthood as many as 55 respondents (76.4%). Research conducted by R. Fitriana (2020), describes the same results, namely the majority of mothers who have children under two who are respondents in his research as many as 18 people (64.3%) are early adults.

For distribution characteristics of the age of the baby, the majority of mothers have Baduta in the age range of 12-23 months (40%), and only 29.1% or 16 people have babies with an age range of 6-8 months. The description of the distribution of these characteristics has similarities with the research conducted by Ayu K, Rahfiludin, and Pradigdo (2017) in which some of the children of the research respondents were aged 12-23 months,

with percentage 68.4% (39 people). In a study conducted by Desyanti (2016), from a total sample of 55 people, 27 respondents (59%).

For the characteristics of education, the majority of the mothers who became respondents had secondary and higher education, with the distribution results for those who finished high school as many as 22 people (40%) and those with higher education (Diploma-bachelor) were also the same as many as 22 people (40%). There are still 6 people with low education (elementary school (SD) - junior high school graduates) (10.9%), and there are also 5 people who don't finish elementary school (9.1%).

Education parent is one of the most important factors in the growth and development of children. With a good education, parents can get all information from outside, especially how to educate their children well, how to maintain their children's health, and how to educate them (Soetjningsih, 2012). , that is, most of the mothers have the latest high school knowledge level as many as 14 people (35.8%). This proves that a person's level of education has an influence on the behavior of infant feeding practices. (Rosnah, 2013)

Based on the results of the study, it was found that the majority of respondents were housewives as many as 24 people (43.6%) and the rest worked as Civil Servants (PNS), private employees, entrepreneurs, and also as laborers in the market. Respondents who work as civil servants can participate in this research activity because the activities are carried out in the afternoon and also in the villages of Vila Verde and Caicoli on Saturdays and Sundays (holidays).





Mothers who do not work usually have a lot of free time to get information. Because mothers usually have a lot of free time to get information, and also have many opportunities with their children at home.

### Frequency Distribution of Mother's Knowledge Characteristics before and After Health Education

Knowledge of PMBA is assessed based on the respondent's ability to know and answer a number of statements related to PMBA. Knowledge is categorized into 3, knowledge is good (if the percentage score is 76-100%, or if the correct answer is more than 32 items, knowledge is sufficient if the score is 56-75% (if answered correctly 23-31 items), and education is less if the score is <56%.

Table 2. Frequency Characteristics of Respondents Based on Knowledge before and after being given health education

Knowledge	Before		After	
	Freq	%	Freq	%
Good enough	40	72.7	47	85.5
Not enough	15	27.3	8	14.5
	0	0	0	0

Knowledge of mothers who have Baduta about PMBA before and after being given health education, if seen from the table above, it can be concluded that mother's knowledge after being given health education using flipchart media increases. The results obtained before being given health education, good knowledge as many as 40 respondents (72.7%) and sufficient knowledge as much as 27.3%. after being given health education, good knowledge increased to 85.5%, while moderate knowledge decreased to 14.5%. This is in line with research conducted by Leylis (2018), where there was an increase in mothers' knowledge after being given health education about MP-ASI using the media.

Table 3. Mother's knowledge level based on the characteristics of the mother's age before being given health education

Mother's Age	Prior Knowledge			Total
	Good	enough	Not enough	
Late adolescence (17-25 years)	12 (30%)	2 (13.3%)	0	14 (25.5%)
Early Adults (26-35 years)	23 (57.5%)	9 (60%)	0	32 (58.2%)
Late adulthood (36-45 years)	5 (12.5%)	3 (20%)	0	8 (14.5%)
Early elderly (46-55 years)	0 (0.0%)	1 (6.7%)	0	1 (1.8%)
Total	40 (100%)	15 (100%)	0	55 (100%)

Table 4. The level of knowledge of mothers who have Baduta about PMBA based on the characteristics of the mother's age After being given health education

Mother's Age	Knowledge After			Total
	Good	enough	Not enough	
Late adolescence (17-25 years)	13 (27.7%)	1 (12.5%)	0	14 (25.5%)
Early Adults (26-35 years)	26 (55.3%)	6 (75%)	0	32 (58.2%)
Late adulthood (36-45 years)	7 (14.9%)	1 (12.5%)	0	8 (14.5%)
Early elderly (46-55 years)	1 (2.1%)	0	0	1 (1.8%)



Mother's Age	Knowledge After			Total
	Good	enough	Not enough	
Total	47 (100%)	8 (100%)	0	55 (100%)

In the table above, cross-tabulation is performed between maternal age and mother's knowledge before being given health education and after. Respondents who had good knowledge before and after giving health education, in early adulthood and late adulthood, where for early adults before being given health education, there were 23 respondents who had good knowledge and increased to 26 respondents after being given health education. For early adults from 5 people to 7 people who are well informed after being given health education. Even though if viewed based on this age, the difference in knowledge before and after being given health education was not that high, overall there was an increase in

knowledge from moderate to good after health education was given.

This is in line with research conducted by Dewi (2018), where the results of the study show that adults have a good level of knowledge because age affects the mother's level of knowledge. The older the age, the better the level of knowledge in giving MP-ASI. Changes in physical and psychological (mental) aspects occur as a person ages. Adult age is formed when a person experiences these changes. Increasing age results in a person getting more knowledge, information, and experience. The elder enough, a person will be more mature and strong in thinking and working. (Dewi, 2018).

Table 5. Knowledge Level of Mothers who have Baduta about PMBA based on the Characteristics of Mother's Education before being given Health Education

Mother's Education	Prior Knowledge			Total
	Good	Enough	Not enough	
Not completed in primary school	1 (2.5%)	5 (33.3%)	0	6 (10.9%)
Basic Education (Graduated Elementary-SMP)	3 (7.5%)	2 (13.3%)	0	5 (9.1%)
Secondary Education (high school graduation)	18 (45%)	4 (26.7%)	0	22 (40%)
higher education (Diploma-Bachelor)	18 (45%)	4 (26.7%)	0	22 (40%)
Total	40 (100%)	15 (100%)	0	55 (100%)

Table 6. A mother's knowledge level is based on the characteristics of a mother's education after being given health education.

Mother's Education	Knowledge After			Total
	Good	Enough	Not enough	
Not completed in primary school	3 (6.4%)	3 (37.5%)	0	6 (10.9%)
Basic Education (Graduated Elementary-SMP)	5 (10.6%)	0 (0%)	0	5 (9.1%)
Secondary Education (high school graduation)	20 (42.6%)	2 (25%)	0	22 (40%)
higher education (Diploma-Bachelor)	19 (40.4%)	3 (37.5%)	0	22 (40%)
Total	47 (100%)	8 (100%)	0	55 (100%)



The table above illustrates that the mother's level of knowledge about PMBA based on educational characteristics shows that there is an increase from the level of sufficient knowledge to the level of good knowledge. Respondents who have good knowledge after being given health education from all levels of education have almost the same increase. Respondents with secondary and tertiary education levels had the best knowledge, as many as 20 mothers with secondary education and 19 mothers with higher education.

The same thing was also expressed by Agustina (2018) in her research, saying that respondents who have good knowledge are mostly respondents with upper secondary education. Good knowledge of respondents is also influenced by the level of education. This allows mothers to easily receive information provided by health workers as well as information from the mass media, electronic media, friends, and relatives. This is in accordance with the statement of Kuncoroninggrat (2017), saying that education affects the learning process, the higher the education, the easier it is for a person to receive and obtain information through the media.

Table 7. Level of Knowledge of Mothers Who Have Baduta about PMBA based on Age Characteristics of infants who received complementary feeding before being given health education

Child Age	Prior Knowledge			Total
	Good	Currently	Not enough	
6-8 months	12 (30%)	4 (26.7%)	0	16 (29.1%)
9-12 months	13 (32.5%)	4 (26.7%)	0	17 (30.9%)
13-24 months	15 (37.5%)	7 (46.7%)	0	22 (40%)
Total	40 (100%)	15 (100%)	0	55 (100%)

Table 8 Level of Knowledge of Mothers Who Have Baduta about FDI based on the characteristics of the age of infants who received complementary feeding after being given health education

Child Age	Knowledge After			Total
	Good	Currently	Not enough	
6-8 months	14 (29.8%)	2 (25%)	0	16 (29.1%)
9-12 months	13 (27.7%)	4 (50%)	0	17 (30.9%)
13-24 months	20 (42.6%)	2 (25%)	0	22 (40%)
Total	47 (100%)	8 (100%)	0	55 (100%)

Based on the distribution of mothers' knowledge based on the age of babies who received complementary feeding, it can be concluded that the majority of mothers who had babies aged between 13-24 months experienced a significant increase in their level of knowledge. For the level of knowledge before being

given health education as many as 15 respondents had good knowledge, and increased to 20 people after receiving health education. In conclusion, mothers who have babies aged over 13 months, have a lot of free time to explore their knowledge by reading or from other sources





Table 9. Knowledge level of mothers who have Baduta about PMBA based on the characteristics of the mother's occupation before being given health education

Mother's Job	Prior Knowledge			Total
	Good	Currently	Not enough	
IRT	14 (35%)	10 (66.7%)	0	24 (43.6%)
Laborer	3 (7.5%)	0 (0%)	0	3 (5.5%)
Private	8 (20%)	2 (13.3%)	0	10 (18.2%)
civil servant	15 (37.5%)	3 (20%)	0	18 (32.7%)
Total	40 (100%)	15 (100%)	0	55 (100%)

Table 10. Knowledge level of mothers who have Baduta about PMBA based on the characteristics of the mother's occupation after being given health education

Mother's Job	Knowledge After			Total
	Good	Currently	Not enough	
IRT	21 (44.7%)	3 (37.5%)	0	24 (43.6%)
Laborer	3 (6.4%)	0 (0%)	0	3 (5.5%)
Private	8 (17%)	2 (25%)	0	10 (18.2%)
civil servant	15 (31.9%)	3 (37.5%)	0	18 (32.7%)
Total	47 (100%)	8 (100%)	0	55 (100%)

The results showed that the majority of respondents worked as civil servants, the level of knowledge before and after receiving health education did not change, before a total of 15 people with good knowledge, and after being given health education there were still 15 people who had good knowledge and 3 people with sufficient knowledge. Meanwhile, for mothers who work as housewives, knowledge before and after has increased significantly, from a total of 14 respondents who had good knowledge before health education, increased to 21 after receiving health education.

Research conducted by Luisa & Fauziah (2015), also concluded the same thing, where the majority of respondents who did not work (housewives) had good knowledge of PMBA. Research conducted by Rosnah (2017) found that work had nothing to do with the mother's knowledge of PMBA. In his research, he found that housewives have good knowledge about PMBA. Work is basically an activity that must be done especially to support life and the life of his family. The type of work will determine the economic level of the family and the availability of time to seek information on good feeding practices for infants and young children. (Rosnah, 2017).

### Univariate Analysis

Table 11. Statistical descriptive table Differences in the knowledge of mothers before and after health education

Mother's Knowledge	N	Minimum	Maximum	median	mean	Std. Deviation
Pretest	55	26	38	33.00	33.16	3.035



Post Test	55	26	40	36.00	35.09	3.273
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Based on the table of analysis results (table 4.3) above, it can be concluded that the minimum value obtained by the respondents in the pre-test is the same as the post-test score, which is 26. Meanwhile, the maximum value in the pre-test is 38, and in the post-test, the maximum value increases to 40. The median value The pre-test was 33, and the post-test was 36. It can also be seen that the average (mean) knowledge of mothers who had Baduta before being given information was 33.16. and after being given information, the mean (mean) is 35.09, with a standard deviation of 3,035 for the pre-test, 3,273 for the post-test. So it can be concluded that there is an increase in knowledge of mothers who have Baduta after being given information about FDI, although the increase is not so significant.

Based on the analysis of the table above, the maximum value obtained before and after health education has increased, but the difference is only 2 points. The researchers concluded it was less effective in providing health education due to several factors, such as noise and lack of preparation such as not providing loudspeakers. For this, the researcher concludes that preparation for the provision of health education needs to be considered.

The increase in the mother's knowledge can be seen if the mother is able to provide responses to the questions given in the post-test, and there is a difference in the average value between the pre-test and post-test, where the post-test value is higher than the pre-test value. The knowledge factor has an influence as an impetus for someone to behave. Behavior-based on knowledge will last longer than behavior that is not based on knowledge (Notoatmodjo, 2007). The results of this study are in line with the research conducted by Windayanti, Sofiyanti & Setyowati (2018), which in their research used the media in

providing information related to the practice of feeding children under two. And the results of the evaluation concluded that the mother's knowledge increased after being given information related to PMBA.

Providing information in the form of counseling/counseling as a way to increase knowledge, with the hope that good knowledge can change good behavior. With good knowledge, it is hoped that mothers understand and understand, and are willing and able to properly feed babies and children. This is in accordance with the results of the dedication carried out by Windayanti, Masruroh, and Cahyaningrum (2019), where the mother's knowledge of complementary feeding before counseling was 35%, increasing to 41% in the good category. This shows that there is an increase in knowledge after being given information using the media.

Research conducted by Asweros U., (2014) shows that of 39 mothers who have children aged 6-24 months, after being given information about IDD, mothers whose knowledge is classified as good are 36 people (92.3%) and only a few mothers have less knowledge. 3 people (97.6%). Knowledge of PMBA greatly influences the practice of giving complementary feeding itself, and food choices are influenced by the mother's knowledge. Even if food is available, ignorance can lead to errors in food selection and processing (Suharjo, 2009).

Motivating mothers through health education is one of the efforts of health workers so that the material presented can be achieved. Health education is an educational approach that produces individual/community behaviors needed to improve/maintain good nutrition (Suhardjo, 2003). The theory put forward by Notoatmodjo (2007) is that health education is a health promotion medium that can affect a person's knowledge.



Behavior includes knowledge and attitudes in giving good and correct food to Baduta children. Research conducted by Yulianti (2010), the knowledge of mothers who had Baduta before being given health education using flipcharts and leaflets as many as 16 people had good knowledge (53.3%). And after giving counseling using leaflets and flipcharts,

Proper nutrition in the first 1000 days of life will determine the quality of life of a human being. Malnutrition that occurs during this period will have a permanent and long-term impact. Improper nutrition practice is the main cause of early stunting. The incidence of malnutrition has increased sharply due to ignorance and inability to prepare nutritious food for their children, due to the absence of supporting information media related to feeding practices for Baduta that are in accordance with local conditions. (Ministry of Health RI, 2013 in Rahmawaty et.al, 2016).

This is in line with the community service by Sofiyanti, et al (2019), after being given socialization of the practice of feeding infants and children (PMBA) to Posyandu cadres and an evaluation of knowledge after the socialization was given, the result of this socialization was

the knowledge of Posyandu cadres about PMBA increased and followed by a supportive attitude regarding the implementation of PMBA.

In this study, respondents experienced an increase in knowledge after being given health education using flipchart media. So, the use of flipcharts in health education in this study really helped the respondents to understand the information provided. Health materials on IDD are described using clear language, which can be understood by respondents, using the mother tongue/unifying language in Timor Leste; Tetun language, which is easy to understand and accompanied by attractive illustrations, so that the mothers who were the respondents during the research could easily understand and practice it at home.

#### **Bivariate Analysis**

In this study, the normality test used was the Kolmogorov-Smirnov test, on the basis of decision making, if the significance value ( $p$ ) 0.05 then the data was declared normally distributed. However, if the significance value is  $<0.05$  then the data is not normally distributed. The results obtained from the Kolmogorov-Smirnov Normality test, are as follows:

Table 12. Data Normality Test

	Tests of Normality					
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Pre_Test	.098	55	.200*	.963	55	.085
Post_Test	.118	55	.052	.961	55	.070

Conclusion of the test above Normality, namely the pre-test and post-test values, the significance value for the pre-test is 0.200, and for the post-test is 0.052, the  $p$ -value is 0.05. So that it can be said, the pre-test and post-test residual values are stated distributed normally. In this normality test, the results of the distribution of the data are normal, then

the analysis of the results of the next test uses the paired t-test.

Paired Sample T-Test procedure is a test used to compare the average of two variables in one group. That is, this analysis is useful for testing two samples related or paired. The most common is used in pre-post-design (Wahyono, 2014). The analysis on the table of Paired



Sample T-test is to find out the difference in knowledge before and after counseling. This difference in knowledge was carried out after the normality test was carried out first. And the results of the normality test in this study prove that the data is normally distributed.

Table 13. Paired Sample T-Test

	Paired Sample Statistics			
	mean	N	Std. Deviation	Std. Error Mean
Pre_Test	33.16	55	3.035	.409
Post_Test	35.09	55	3.273	.441

Table 14. Paired sample Correlation test

Pair	Paired Samples Correlations		
	N	Correlation	Sig.
1 pretest & posttest	55	.487	.000

Table 15. Different test (Paired Sample t-test)

	mean	Paired Samples Test				t	df	Sig. (2-tailed)
		Paired Differences		95% Confidence Interval of the Difference				
		Std. Deviation	Std. Error Mean	Lower	Upper			
pretest - posttest	-1,927	3.202	.432	-2,793	-1.062	-4.464	54	.000

Based on table 4.6, the main output of the analysis paired sample t-test is in the table above. To test the initial hypothesis, it can be concluded from the results of the analysis that the value of sig. = 0.00 is obtained. Where based on the basis of decision making in the paired sample t-test is if the significance value (2-tailed) <0.05 then the conclusion is  $H_a$  is accepted, which means that it describes the difference in knowledge of mothers who have Baduta about PMBA, before and after being given information about PMBA through flipchart media.

The results of this study are in line with research conducted by Sofiyanti, et al. (2019), where the evaluation of knowledge after socialization showed

From the first table, it can be concluded that from a total of 55 respondents, the average/mean pretest was 33.16, while the posttest was 35.09, where the posttest score was better than the pretest score. Here statistically descriptively, it can be seen that there is a difference in the pretest and posttest scores. To prove whether the above difference is really significant, it is necessary to look at the significant value on the T-test (paired Sample t-test).

The second table shows a correlation between measurements at pretest and posttest, with p-value <0.05 (sig.=0.00), thus it can be concluded that there is a significant alignment between measurements at pretest and posttest.

that there were differences in the knowledge of posyandu cadres, before and after PMBA socialization. according to toNotoatmodjo(2010), stated that the provision of health education to each individual, group, family, community member, can help improve the ability and Skills in Upgradeself and family health.

Research conducted by Humairah (2015), which was to determine the effect of health education on the knowledge and behavior of mothers in giving complementary feeding to their babies, showed that the results of the analysis showed that there were significant changes in respondents after being given counseling using leaflets and



presentation slides. Where there is a difference between the average value of the pretest and posttest and knowledge and behavior of the mother increased towards a better. The same result was also stated in a study conducted by Fitriani (2012), where the test results stated that there were differences in knowledge and attitudes after being given health education to mothers regarding PMBA.

### **Research limitations**

Activities are carried out in open places, such as at the village hall/meeting hall and also at the cadre's house, which is close to a public highway, and the noise of public transportation is a bit disturbing. Because the preparation is not steady, such as not setting up a loudspeaker. When the activity was carried out, which was agreed at 09.00 otl, on Saturday and Sunday at the Suco Caicoli and Suco Villaverde, it had to be postponed until 10.15, due to incomplete participants, and the cadres who helped run the activity had to go to several respondents' houses and pick them up. they come to the place of implementation of the activity.

Regarding the sample to be used as respondents, researchers took samples using the purposive sampling technique with inclusion and exclusion criteria. However, the sample is not proportional, because there is no total data on infants/children aged 6 months-24 months in suco/village.

### **Conclusion and Suggestions**

The activity of providing information/extension on IYCF was carried out in three (3) villages/sucos, namely the Sucos of Caicoli, Lahane Occidental, and Vila Verde, the implementation of which was from January 6, 8, and 9, 2022. The number of mothers who participated in the activity and became respondents, as many as 55 respondents. The results of the study concluded that there were differences in mothers' knowledge about PMBA, before

and after counseling about IDD using flipchart media. Providing information using effective media in increasing mothers' knowledge about infant and child feeding practices, with the results of the different test results in the Paired Sample t-test table above, it can be concluded that the significance is 0.000. This means that there is a significant difference between the average value before treatment and the average value after treatment

### **Acknowledgments**

The researcher would like to thank all those who have helped and played an important role in this research process: Prof. Dr. Subyantoro, M. Hum, as Chancellor of Ngudi Waluyo University Ungaran-Semarang. Eko Susilo, S.Kep., Ns., M.Kep, as the Dean of Ngudi Waluyo University Ungaran-Semarang. Luvi Dian Afriyani, S.SiT., M.Kes, as Head of Midwifery Study Program Undergraduate Program at Ngudi Waluyo Ungaran-Semarang University. Ida Sofiyanti, S.SiT., M. Keb, is a supervisor who always takes the time to provide guidance, direction, and motivation while completing this thesis. All lecturers and teaching staff of the Undergraduate Midwifery Study Program who have helped during their education until the completion of the final project. Head of CSI Formoza 2 who has given permission to researchers to collect data from previous studies and conduct research in the CSI Formoza 2 working area. Head of Village/Suco Caicoli, Lahane Occidental, and Vila Verde who has given permission for researchers to conduct research in the village/suco concerned. To the cadres of Grupo Suporta Inan (GSI) for their cooperation while the researchers coordinated, organized, and cooperated well during the management of the research. To my parents, husband, and children who always provide support, love, blessing, and motivation. All parties who have contributed that the researcher cannot mention one by one who has helped in the preparation of this thesis.





Finally, I hope this thesis can be useful for readers and all and can be used as a reference for further research.

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