

# The Relationship of Mother's Knowledge with Increased Weight of Babies Aged 3-6 Months in the Work Area of Bandar Masilam Health Center, Simalungun Regency, North Sumatra in 2021

**Srimis Leini Saragih**

Health Science Program Nursing Study Program, Haji University, North Sumatra

## ARTICLE INFO

### Keywords:

Knowledge,  
increase in baby weight.

## ABSTRACT

Infancy starts from the age of 0-12 months which is characterized by rapid growth and physical changes accompanied by changes in nutritional needs. The weight growth of infants aged 0-6 months has increased by 150 -210 grams / week. Lack of knowledge of the mother affects the rate of growth of the baby's weight which can result in the baby being malnourished during its growth period. Descriptive survey research method uses a descriptive correlational design.

The population in this study were all mothers who had babies aged 3-6 months, the sampling technique was accidental sampling with a total of 50 respondents. The instrument used in the form of a questionnaire. Data analysis using the Chi-Square Test. Based on the results of the study, the majority of 50 respondents had sufficient knowledge as much as 31 (62%). The Chi Square test result is 0.013, it can be seen that the calculation of the significant coefficient test is obtained at the real initial  $\alpha = 0.05$  and the Chi Square test  $p = 0.013$  so that  $0.013 < 0.05$ .

### E-mail:

[srimisleini1967@gmail.com](mailto:srimisleini1967@gmail.com)

Copyright © 2019 Science Midwifery.

## 1. Introduction

The baby's growth is very fast, if a newborn baby weighs 3 kg then at the age of a month his weight can reach 3.7-4 kg. However, so that it is easier for us to control normal weight gain, we should have a posyandu book. Where there is made a parabolic diagram of normal child weight gain according to age (Kemenkes, 2010). Generally in the first three months after birth weight gain is the greatest. Over time, such as at the age of 3-6 months, the growth slows down a bit, although it is still quite high. at the age of 6-9 months weight gain slows down. at the age of 9-12 months, the increase is not striking (Risksedes, 2012)

Improvement and improvement of efforts to survive, develop and improve the quality of life of children is an important effort for a stronger future for Indonesia. Efforts for survival, development and improvement of children play an important role since early life, namely the period in the womb, infants and toddlers. The survival of the child itself means that the child does not die in the early days of his life, that is, not until he reaches the age of one year or is under five years old (Anik, 2010: 1). The main goal of national development is to improve the quality of human resources in a sustainable manner. Healthy Indonesia 2010 is a vision of health development. The vision of development in the field of nutrition is to realize nutrition-aware independent families to achieve optimal community/family nutritional status (Depkes RI, 2006).

In 2012, 103 million children under the age of five in developing countries were underweight or underweight. The prevalence of under-fives experiencing nutritional problems based on body weight per age (BB/U) in Indonesia in 2010 included 13.0% malnutrition cases and 4.9% malnutrition cases. The prevalence in West Sumatra shows cases of malnutrition 14.4% and malnutrition 2.8%. The impact is very clear, namely the growth of the child and toddler will be disturbed, they can not lead a normal life. In terms of development, the state will be hampered because the human resources need-

ed will experience big problems. The highest prevalence of malnutrition by province in Indonesia in 2003 was Gorontalo province, which was 21.48%, while the highest prevalence of malnutrition was NTT at 25.93% (Nency, 2005: Based on the results of Susenas, in North Sumatra the prevalence of malnutrition in 2007 was 17.32%, in 2003 it was 18.39% and in 2005 it was 18.20%. While the prevalence of malnutrition in 2000 was 9.16%, in 2003 it was 12.35% and in 2005 it was 10.50% (Rikesdes, 2012).

UNICEF reported that under-five children with malnutrition in Indonesia in 2005/2006 rose to 2.3 million compared to the previous year in 2004/2005 which amounted to 1.8 million (Aritonang, 2006: 67). Meanwhile, according to the Ministry of Health in the Action Plan for Prevention and Management of Malnutrition 2005-2009, the prevalence of malnutrition and malnutrition in Indonesia is 27.5% (Depkes, 2005). Around 37.3 million people in Indonesia live below the poverty line, half of the total households consume less food than their daily needs, five million children under five are malnourished, and more than 100 million people are at risk of various malnutrition problems. Good nutrition is balanced nutrition, meaning that the intake of nutrients must be in accordance with the body's needs. The nutritional needs of each person vary based on their respective metabolic and genetic elements. Good nutrition will help prevent acute and chronic diseases. The balance between intake and nutritional needs greatly affects growth, development, intelligence, health, children's activities and other things (Supariasa, 2001: 65).

Child survival is indicated by the infant mortality rate (IMR) under-five mortality rate (AKA-BA/AKBAL). The infant and under-five mortality rate in Indonesia is the highest in any other ASEAN country. This needs to be understood and followed up by midwives and other health workers, given that Indonesia has a heavy burden because of its vast area and large and heterogeneous population. As members of professional organizations in the health sector, midwives must also play an active role in efforts to reduce infant and under-five mortality. This is in line with the Millennium Development Goals (MDGs) number 4 (four), which is to reduce the child mortality rate by two-thirds by 2015 (Anik, 2010:2). Based on an initial survey conducted on March 6, 2014 in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency, 2015 data was obtained that out of 10 mothers only 3 mothers knew about increasing the weight of babies aged 3-6 months. Based on the description above, the researcher is interested in raising a problem as a scientific paper with the title "The Relationship of Mother's Knowledge with Increased Weight of Babies Age 3 - 6 Months in the Work Area of Simpang Dolok Health Center, Limapuluh District, Batubara Regency in 2015. Meanwhile, 7 other people did not know about the increase in baby weight.

## **2. Method**

### **2.1. yes of research**

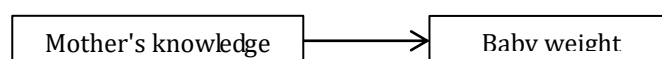
The type of data used in this study is primary data, namely by using a closed questionnaire for the independent variable (growth of infants aged 3-6 months). The type of this research is quantitative research (Arikunto, 2010: 22).

### **2.2. Research design**

This study uses a descriptive correlational research design, namely: to describe the relationship between mother's knowledge and weight gain of babies aged 3-6 months in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency in 2015.

### **2.3. Research sites**

The scheme of this research is with two variables, namely one independent variable (independent) or X and one dependent variable (dependent) Y. The independent variable in this study is the mother's knowledge, while the dependent variable is the increase in the weight of infants aged 3-6 months who are given birth control. monitor from kms. The relationship of the two variables is as shown in the image below.



**Picture. 2.** Research research design scheme

### **2.4. Research sites**

This research was carried out in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency in 2015 because of problems, a sufficient population as a sample, the

# Science Midwifery

existence of references and quite close to the research place. Research Time This research was carried out from July to August 2015.

## 2.5. Research Population and Sample

The population is the entire object of research or the object to be studied (Notoatmodjo, 2010: 34). The population in this study were all mothers who had babies 3-6 months, totaling 75 people. The sample is partly taken from the entire object to be studied and is considered to represent all the population in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency 2015. The sampling technique in this study uses accidental sampling, namely respondents who happen to exist or are available somewhere in accordance with research context (Notoatmodjo, 2010). The sample in this study amounted to 50 mothers who have babies aged 3-6 months in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency in 2015.

TABLE 1  
OPERATIONAL DEFINITION

Variable	Operational definition	Measuring instrument	Measurement Results	Measuring Scale
Knowledge of breastfeeding mothers (X)	results know from mother about baby weight enhancement 3-6 months old.	Questionnaire	1= Good :>6 2= Enough : 4-5 3=Less :< 4	ordinal
enhancement weight baby age 3-6 months (Y)	Increase in physical size, due to the multiplication of cells and an increase in the number of substances between cells	XMS	1=Increase : 5-7 kg 2=Not increasing : < 5	ordinal

## 3. Results and Discussion

### 3.1 Overview of Research Locations

This research was conducted in the Simpang Dolok Health Center Work Area, Limapuluh Sub-district, Batubara Regency in 2015. This research was carried out from July to August, with the number of respondents as many as 50 people in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency. Correlational descriptive design to determine the relationship between mother's knowledge and weight gain of babies aged 3-6 months in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency in 2015.

### 3.2 Univariate Analysis

#### a. Demographic Data

Based on the results of this study in the work area of the Simpang Dolok Health Center, Limapuluh District, Batubara Regency in 2015, it is known that the demographic data of mothers by knowing the characteristics of age, education, and occupation and the sources of information obtained from 50 respondents in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency. as follows, which the researcher presents in the form of the table below:

TABLE 2  
FREQUENCY DISTRIBUTION OF RESPONDENT DEMOGRAPHIC DATA IN THE WORKING AREA OF HEALTH CENTERS SIMPANG DOLOK, LIMAPULUH DISTRICT, COAL REGENCY IN 2015

No	Demographic Data	Frequency	Percentage (%)
1	Age		
	21 – 35 years old	35	70
	> 36 years old	15	30
	Amount	50	100
2	Education		
	SENIOR HIGH SCHOOL	23	46

SD		27	54
	Amount	50	100
3	Work		
	IRT	34	68
	Teacher	16	32
	Amount	50	100
4	Sources of Information		
	Media	27	54
	Health workers	23	46
	Amount	50	100

From the table above, it can be seen that the majority of respondents aged 21-35 years were 35 people (70%). Sources of information obtained by respondents through the media as many as 27 people (54%)

TABLE 3  
RESPONDENT FREQUENCY DISTRIBUTION BASED ON KNOWLEDGE IN THE WORK AREA  
SIMPANG DOLOK PUSKESMAS, LIMAPULUH DISTRICT, BATUBARATA REGENCY, 2015

No	Respondent Knowledge	Frequency	Percentage(%)
1	Well	12	23.5%
2	Enough	13	25.5%
3	Not enough	25	49%
	Amount	50	100%

From the table above, it can be seen that the majority of respondents have insufficient knowledge of 25 people (49%), and the minority of respondents who have sufficient knowledge are 13 people (25.5%).

TABLE 4  
RESPONDENT FREQUENCY DISTRIBUTION BASED ON WEIGHT GAINS  
BABIES IN THE WORK AREA OF THE SIMPANG DOLOK PUSKESMAS, LIMAPULUH  
DISTRICT COAL DISTRICT 2015

No	Baby Weight Increase	Frequency	Percentage (%)
1	Increase	13	25.5%
2	Not Increase	37	72.5%
	Amount	50	100%

From the table above, it can be seen that the knowledge of respondents with an increase in the weight of babies aged 3-6 months in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency. ), did not increase 22 people (44%). The good minority were 12 people (24%) with 6 people (12%) increasing baby weight and 6 (12%). Based on the results of the Chi-square statistical test analysis with P Value = 0.013 with p value = < 0.05 so that P Value (0.013) < P (0.05), the research hypothesis was determined that Ho was rejected and Ha was accepted, meaning there was a relationship between maternal knowledge and weight gain. the body of babies aged 3-6 months in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency in 2015.

### 3.3 Hypothesis Tester

Hypothesis testing was carried out using a simple correlation analysis technique to determine the knowledge of mothers with increasing infant weight in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency. 3-6 months. From the analysis of statistical data with the chi square test, it can be seen that from the results of the calculation of P value (0.013) < a (0.05), thus the hypothesis in this study is Ha is accepted which means there is a relationship between mother's knowledge and weight gain of babies aged 3 -6 months in the Simpang Dolok Health Center Work Area, Limapuluh District, Batubara Regency in 2015.

### 3.4 Discussion

#### a. Characteristics of Respondents

Based on the results of the study, it can be seen that from 50 respondents, 35 respondents (75%). This is in accordance with Hurlock's opinion, that age (21-35) years is a period in which a person maximally achieves satisfactory performance. This is in accordance with the theory of weight growth of babies aged 3 to 6 months, normal baby weight gain is as much as 450 grams every 4 weeks or about 125 grams per week. Age has a role in gaining knowledge, because one's memory power is influenced by age, the older a person is, the function of his body organs also

decreases, including memory. Meanwhile, according to Notoadmodjo (2004), age plays an important role in understanding a science,

Apart from age, which can affect mother's knowledge, educational background can also affect mother's level of knowledge. From the results of the study, the highest education level of mothers was found to be high school graduates as many as 23 people (46%). Education can affect a person's learning process. The higher a person's education, the easier it is to receive the information. The more information that comes in, the more knowledge that can be obtained, including health information. It aims to see that the higher the education of the respondent, the easier and more knowledgeable it is to know about how to increase the baby's weight. Through education a person can get information quickly, A person's education will influence in responding to something that comes from outside. Someone with higher education will respond more rationally to incoming information and will think about the extent of the benefits they might get from health education. In the opinion of Notoadmodjo (2010) which states that education has an important role in determining human quality. The level of human education is associated with the ability to absorb and receive information in the field of health and family.

Education is important because it is the basis of understanding people in terms of receiving information. Information can be more easily accepted and adopted by someone who has higher education than low education. This is in accordance with the opinion of Hurlock (2004), that education plays an important role in determining the quality of human beings, and will be considered more integrated when tasting education.

Occupation is also a factor that influences mother's knowledge about how to increase baby's weight at the age of 3-6 months. The results of the study also found that, all mothers who were sampled in the study worked as housewives as many as 35 people (75%) In the opinion of Notoadmodjo (2008) work is an activity or activity that is carried out daily. where those who have jobs will be faster and easier to get information.

#### **b. Respondent Knowledge**

Knowledge is an impression in the human mind as a result of the use of the five senses. Knowledge is very different from belief (beliefs), superstition (superstition). Knowledge is everything that is known based on the experience gained by every human being, Mubarak (2011). The factors that influence knowledge are education is the guidance given by someone to others in order to understand something, work is an environment that can make a person gain experience and knowledge, either directly or indirectly. With increasing age a person will experience changes in physical and psychological (mental) aspects. In the psychological or mental aspect, a person's level of thinking becomes more mature and mature. Interest makes someone to try and pursue something, so that someone gains deeper knowledge.

Based on 15 statements regarding mother's knowledge about increasing baby's weight, it was found that mothers who had good knowledge were 4 people (8.0%) and knowledgeable respondents who had sufficient knowledge were 31 people (62%) and mothers who had less knowledge were 15 people (30%).

#### **c. Mother's Knowledge Relationship with Baby's Weight Gain**

Based on the calculation of statistical tests on 50 respondents, it can be described the results obtained with a chi square value of  $(0.013) < \alpha (0.05)$ , which means that there is a relationship between mother's knowledge and weight gain of babies aged 3-6 months in the Simpang Health Center Work Area. Dolok, Limapuluh District, Batubara Regency in 2015.

### **3.5 Research Limitations**

In this study, researchers have made every effort to obtain actual data and optimally control conditions related to the research process and results, but various obstacles often arise so that various weaknesses and limitations when carrying out this research include, in carrying out this research. using the actual situation, so it is necessary to explain to the respondent that the research is carried out for the development of knowledge but all secrets about the respondent are kept confidential. In addition, the questionnaire used in this research is a closed questionnaire, so that respondents can only answer true or false and yes or no and respondents' answers have not been able to measure knowledge in depth. For this reason, this research needs to be followed up through research with a scale wider area and with more varied methods to provide confidence in the results obtained, so that the results are more useful and can be applied.

#### **4. Conclusion**

Based on the results of the data analysis described in chapter IV, it can be concluded as follows: The majority of respondents' knowledge about increasing the weight of babies aged 3-6 months is sufficient. The increase in the weight of babies aged 3-6 months in the work area of the Simpang Dolok Health Center, Limapuluh District, Coal District, in 2015 the majority did not increase. The results of the analysis obtained a value of  $P = 0.013$  which means that there is a significant relationship between mother's knowledge and the increase in the weight of babies aged 3-6 months.

#### **References**

- Anik, 2010. Maternal and Neonatal Emergency Care. Jakarta : BCG  
Ari Tonang, 2006. Busung Hungry. Jakarta : EGC  
Indonesian Ministry of Health. 2007. Participation Movement for the Rescue of Breastfeeding Pregnant Mothers and Babies. Jakarta  
Imelda, Rina, 2007. Guide to Pregnancy and Baby Care. Yogyakarta: Victory.  
Hidayat, A. Alimul, 2007. Midwifery Research Methods and Data Analysis Techniques. Jakarta: Salemba Medika.  
,2011. Midwifery Research Methods and Data Analysis Techniques. Jakarta: Salemba Medika.  
Mubarak, 2012. Health Promotion for Midwifery. Jakarta: Salemba Medika  
Notoatmodjo, S, 2012. Health Research Methods. Jakarta: Rineka Cipta.  
Nursalam, 2005. Infant and Child Nursing. Jakarta : Salemba Medika  
Nestle. 2005. Baby Biscuits. Jakarta: Arnott's Indonesia  
Perry, 2005. Health Assessment. Jakarta: EGC  
Susilawai, 2008. Nutrition Science for Students and the Profession. Jakarta: EGC Medical Book.  
Soekirman, 2005. Nutrition Science and Its Applications. Jakarta: EGC.