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Mother's Behavior on Knowledge and Attitudes Toward Child Nutritional Status in Magetan Regency, East Java, Indonesia

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Abstract

BACKGROUND: Toddler nutritional status is an indicator of toddler growth. Basic Health Research, 2010 states: 5.4% malnutrition status and 13.0% malnutrition. In 2013, the proportion of malnutrition status was 5.7% and malnutrition was 13.9%, from the target of 19.6%, and in 2018, the proportion of malnutrition was 3.9% and malnutrition was 13.8% of the target of 17.7%.

AIM: The research objective to determine the effect of maternal knowledge and attitudes on the nutritional status of children under five.

METHODS: This study was cross-sectional study design. Population 135 and a sample of 94 people. Sampling technique: Simple random sampling. Independent variable: Knowledge and attitudes of the mother, while the dependent variable: Nutritional status of children. Data collection techniques: Questionnaires and baby scales. To analyze the effect of the independent variable on the dependent variable, multiple logistic regression with a significance of 0.05 was used.

RESULTS: Knowledge of mother Group b affected 3.2% with poor nutritional status and 34% affected good nutritional status. Mother's attitude affects 1.1% of children under five with poor nutritional status and affects 16% of children with good nutritional status. From the results of the analysis using multiple logistic regression, it was found that the effect of the knowledge variable on nutritional status was 0.000 (<0.05), while the effect of attitude on nutritional status was 0.000 (<0.05).

CONCLUSION: There is an influence of knowledge and attitudes of mothers of children under five on the nutritional status of children under five.

SUGGESTION: To reduce the incidence of malnutrition and malnutrition in Indonesia is to increase the knowledge and attitudes of mothers under five in providing menus according to the needs and age of the child.

Introduction

The future of a nation depends on the success of children in achieving optimal growth and development. The 1st years of life, especially the period from the fetus in the womb until the child is 2 years old, is a very important period in the child's growth (Dinkes Magetan, 2017). Early detection of growth deviations needs to be done to follow-up on any complaints from parents about their child's growth problems. Optimal growth is supported by good nutrition. However, in reality, there are still many malnutrition cases [1]. Based on the Basic Health Research (Riskesdas) in Indonesia in 2007, data on the proportion of poor nutritional status were 5.4% and malnutrition was 13.0%, in 2013, the proportion of poor nutritional status was 5.7% and malnutrition was 13.9%, from the target 19.6%, and in 2018, the proportion of malnutrition was 3.9% and malnutrition was 13.8% of the target of 17.7% [2]. The 2019 RPJMN target is 17%. The prevalence of children under five in East Java Province in 2012 under five with poor nutritional status is 2.35% and 10.28% less nutrition. In 2013, there was an increase in the number of children under five with poor nutritional status of 2.3% and undernutrition of 12.6%. Data from the Health Office of Magetan Regency in 2016, the number of malnourished children under five is 1.1% [3].

Two factors affect nutritional status, namely, indirect factors and direct factors. Indirect factors include (1) food security which includes; education, knowledge, food availability, and purchasing power, (2) parenting which includes; mother's attitude in providing a balanced menu and behavior, and (3) health services. Direct causative factors are namely nutritional intake and infectious diseases [4]. Both of these factors greatly affect a person's nutritional status. Malnutrition in children has an acute and chronic impact on growth and development. Children who are malnourished will look physically weak. Children who are malnourished will be more susceptible to disease due to poor immunity [5]. One of the government's efforts to improve under-nutrition in children under five is to create a program, namely, the four healthy five perfect menu pattern, balanced nutrition guidelines, nutrition awareness families (Kadarzi), Posyandu as a means of community participation in efforts to improve health, and nutrition

recovery posts. Counseling was done to caregivers or mothers of toddlers about toddler nutrition, a balanced menu according to age, and if necessary referral to adequate health facilities [6].

Based on the description of the background of the problem, the researcher formulates the problem: Is there an influence of knowledge and attitudes of mothers of children under five on the nutritional status of children under five? The purpose of the study was to determine the effect of knowledge and attitudes of mothers of children under five on the nutritional status of children under five at Magetan Regency [7].

Methods

This research is analytic with cross-sectional research design. The population is 135 and the sample is 94 people. Sampling technique: Simple random sampling [8]. Independent variables: Knowledge and attitudes of mothers, while the dependent variable: Nutritional status of children under five. Data collection techniques: Questionnaires and baby scales. To analyze the effect of the independent variable on the dependent variable, multiple logistic regression with a significance of 0.05 was used [9].

Results

Characteristics of mothers under five by age

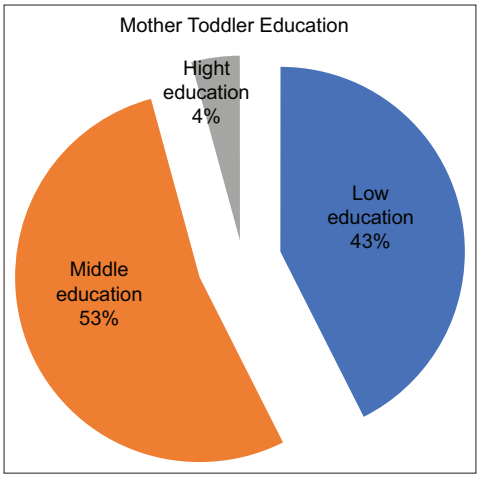
The results of the study obtained data on the age of the mother under five. The highest frequency is aged 31–35 years, as much as 27.64%. The smallest frequency of age 46–50 years is 2.12%. Age distribution is shown in Table 1.

Table 1: Age distribution of mothers under five at Magetan Regency in 2019

Serial number	Age	Frequency (%)
1	15–20	4 (4.24)
2	21–25	18 (19.14)
3	26–30	22 (23.40)
4	31–35	26 (27.65)
5	36–40	17 (18.08)
6	41–45	5 (5.31)
7	46–50	2 (2.12)
Total		94 (100)

Characteristics of mothers under five based on education

From the results of research on maternal education at Magetan Regency in 2019, the results showed that most of them had secondary education by 53%, and a small proportion of mothers had higher education by 4%. The description of the mother's education level is shown in Pie 1.



Pie 1: Distribution of education for mothers of children under five at Magetan Regency in 2019

Table 2: Distribution of the frequency of knowledge of children under five at Magetan Regency in 2019

Serial number	Knowledge	Frequency (%)
1	Good	55 (58.5)
2	Enough	32 (34.0)
3	Not enough	7 (7.4)
	Total	94 (100)

Distribution of the frequency of knowledge, attitude, and nutritional status

In Table 2, it is found that most of the good knowledge is as much as 55 (58.5%) and a small part of the knowledge is < 7 (7.4%).

In Table 3, the results of the respondents' attitudes are mostly positive attitudes 63 (67%) and a small number of negative attitudes is 31 (31%).

Table 3: Distribution of the frequency of attitude of children under five at Magetan Regency in 2019

Serial number	Attitude	Frequency (%)
1	Positive	63 (67.0)
2	negative	31 (33.0)
	Total	94 (100)

Frequency distribution of toddler nutritional status

From the results of the study, it was found that the nutritional status of children under five at Magetan Regency in 2019, the nutritional status of thin than 4 (4.3%) children, and normal nutritional status of 73 (77.9%) children. The distribution of nutritional status of children under five is shown in Table 4.

Table 4: Distribution of the frequency of nutritional status of children under five at Magetan Regency in 2019

Serial number	Nutritional status	Frequency (%)
1	Thin	4 (4.3)
2	Normal	73 (77.7)
3	Fat	12 (12.8)
4	Very fat	5 (5.3)
	Total	94 (100)

Table 5, cross table of knowledge with nutritional status in toddlers under the age of 5 years, it is found

Table 5: Cross table of knowledge with nutritional status in of children under five at Magetan Regency in 2019

Knowledge	Nutritionalst				Total
	Thin	Normal	Fat	Very fat	
Good					
Count	3	43	6	3	55
Percentage within knowledge	5.5	78.2	10.9	5.5	100.0
Percentage of total	3.2	45.7	6.4	3.2	58.5
Enough					
Count	1	27	3	1	32
Percentage within knowledge	3.1	84.4	9.4	3.1	100.0
Percentage of total	1.1	28.7	3.2	1.1	34.0
Not enough					
Count	0	3	3	1	7
Percentage within knowledge	0.0	42.9	42.9	14.3	100.0
Percentage of total	0.0	3.2	3.2	1.1	7.4
Total					
Count	4	73	12	5	94
Percentage within knowledge	4.3	77.7	12.8	5.3	100.0
Percentage of total	4.3	77.7	12.8	5.3	100.0

that most of the knowledge is good with normal nutritional status as much as 43 (78.2%), and a small portion of knowledge is lacking with good nutritional status1 (14.3%).

Table 6, cross table of attitude with nutritional status in toddlers under the age of 5 years, it is found that most of the attitude is positive with normal nutritional status as much as 52 (82.5%), and a small portion of attitude is negative with thin nutritional status1 (1.6%).

Statistical analysis of the effect of knowledge, mother's attitude on the nutritional status of toddlers

The effect of knowledge and attitudes of mothers of children under five on the nutritional status of children under five obtained the results of the study by testing multiple logistic regression models with a double log-linear p = 0.000 (< 0.05) so that Ho was rejected, H1 was accepted.

Table 6: Cross table of attitude with nutritional status in of children under five at Magetan Regency in 2019

Attitude	Nutritionalst				Total
	Thin	Normal	Fat	Very fat	
Positive					
Count	1	52	8	2	63
Percentage within attitude	1.6	82.5	12.7	3.2	100.0
Percentage of total	1.1	55.3	8.5	2.1	67.0
Negative					
Count	3	21	4	3	31
Percentage within attitude	9.7	67.7	12.9	9.7	100.0
Percentage of total	3.2	22.3	4.3	3.2	33.0
Total					
Count	4	73	12	5	94
Percentage within attitude	4.3	77.7	12.8	5.3	100.0
Percentage of total	4.3	77.7	12.8	5.3	100.0

This means: There is an influence of knowledge and attitudes of mothers of children under five on the nutritional status of children under five in Magetan Regency. In detail, the results of the analysis are in Table 7.

Table 7: Statistical analysis of the influence of knowledge and attitudes of mothers of children under five on the nutritional status of children under five at Magetan Regency in 2019

Serial number	Influence between variables	Significant	Information
1	Knowledge of nutritional status	0.000	There is influence
2	Attitude toward nutrition status	0.000	There is influence

Discussion

The highest proportion of mothers aged 31–35 years was 27.65%. According to Hurlock, adulthood is divided into three, namely, early adulthood (18–40) years, middle adulthood (40–60) years, and late adulthood (60–120) years. Biologically, it is the peak period of prime physical growth and the age of the human population as a whole is supported by healthy lifestyle habits. Psychologically, quite a lot of people is less able to reach maturity due to the many problems, they face and cannot be overcome both before and after marriage [10].

Most of the mothers work as housewives (82 people). Work is a symbol of one's status in society. Work is not only to get a reward, but also as a person's duty or responsibility in living life according to the status, position, and degree they have. The work environment can make a person gain experience and knowledge, either directly or indirectly. The work environment can make a person gain experience and knowledge, either directly or indirectly [11].

From the research results, the highest number of mothers have secondary education as much as 53%. Education means the guidance that someone has given to others to understand something. It is undeniable that the higher a person's education, the easier it is for them to receive information, and in the end, the knowledge they have will increase. Conversely, if a person has a low level of education, it will hinder the development of that person's attitude toward receiving information and newly introduced values [12].

Based on the research, the average value of a mother's knowledge was 10.31. Mother's knowledge about good and correct nutrition for toddlers affects the nutritional status of toddlers. Knowledge of nutrition includes good eating habits, selection, and use of food which, in turn, affects the high and low quality of eating for toddlers. Knowledge of good nutrition is balanced nutrition, meaning that the intake of nutrients must be by the body's needs [13]. Because it affects the growth of the brain and the level of intelligence of toddlers. This is by the journal Arya Risky P and Ita Mardiani Z. The influence of education level, income level, mother's knowledge, mother's attitude, and mother's behavior on the nutritional status of toddlers in Kesamben District, Jombang Regency. Mothers who have below-average knowledge have children under five whose nutritional status is < 28.3%. Mothers who know the average have toddlers whose nutritional status is good 34% [14].

The cross table shows that the better the knowledge, the better the nutritional status. If the attitude is positive, the nutritional status will be better. There are 4 levels of attitude; namely accepting the subject and paying attention to the stimulus, responding in the sense of doing and completing the given task, respecting and inviting others to solve

problems, and being responsible for everything chosen with all the risks. A good mother's attitude in providing a balanced menu to toddlers affects their nutritional status. According to the journal Julita Nainggolan and Remi Zuraida, the relationship between knowledge and nutritional attitudes of mothers and the nutritional status of children under five in the working area of the Rajabasa Indah Health Center, Rajabasa Raya village, Bandar Lampung, resulted in 77 respondents who behaved well, 33 of whom had toddlers with poor nutritional status. 44 other respondents have good nutritional status under five. 82 respondents had poor behavior, 67 of whom had toddlers with poor nutritional status, while 15 others had toddlers with good nutritional status [16]. The attitude of a mother is formed from the habits and patterns of parenting in the family as well as the information obtained, both formal and informal. So that the environment and place of residence affect the mother's attitude in giving her toddler menu [17].

Mother's knowledge about nutrition of toddlers who got a score of 11 was 33 people, there were 32 or 97% of toddlers with good nutritional status. Knowledge of mothers who get a value of 7 as many as 4 people there are 3 or 75% poor nutritional status. Mother's knowledge about nutrition for toddlers supports the nutritional status of toddlers because the mother is the first and foremost person to care for toddlers. The nutritional needs of toddlers can be met if the mother knows and can provide a balanced menu according to the age and needs of the toddler [18].

The attitude of mothers in giving menus to toddlers who got a score of 31 was 15 people, all of them (100%) had good nutritional status. The attitude of mothers who got a score of 20 was 4 people, there were 3 or 75% of toddlers with poor nutritional status. A positive mother's attitude in providing a menu for toddlers gives optimal results [19]. Toddlers with good nutritional status category because they receive care from mothers with good attitudes as well. Mothers know how to select, process, and serve healthy and age-appropriate toddler food. From the description above, it can be concluded that the knowledge and attitudes of mothers in providing menus for toddlers affect the level of nutritional status. So one solution to reduce the number of malnourished toddlers is to increase the knowledge and attitudes of mothers in providing menus for toddlers [20].

Conclusion

The highest maternal age was in the age group 31–35 years 27.65%, the most maternal occupations were housewives 87%, the highest maternal education was in secondary education 53%. The highest maternal age was at the age of group of 31-35 years as much as 27.65%, mostly jobs are housewives as much as 87%, most of the education is secondary education as much as 53%. Most toddlers with good nutritional status are as much as 97% with a knowledge value of 11 and a total of 15 under five or 100% good nutritional status in mothers with attitude score 31. There is an influence of knowledge and attitudes of mothers of toddlers on nutritional status of toddlers. Suggestion For mothers of toddlers Mothers of toddlers need to increase knowledge and understanding of toddler nutrition according to age so that their nutritional status is in a good category. Suggestions for health institutions are as input for managers of nutrition programs and health promotion programs to improve the recovery of malnutrition and malnutrition in the working area of Magetan Regency.

Ethical clearance

Ethical permission is approval from the Health Polytechnic Research Ethics Commission of the Ministry of Health of Surabaya, this research does not use human and animal experiment objects.

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