

# Knowledge and attitudes of mothers about nutrition status for infants and toddlers in Tuksono, Sentolo, Kulonprogo

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# Knowledge and attitudes of mothers about nutrition status for infants and toddlers in Tuksono, Sentolo, Kulonprogo

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### ABSTRACT

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**Background:** Nutrition is one of the factors that can be used as a determinant of the quality of human resources. The number of malnourished sufferers in the world reaches 104 million children. The prevalence of underweight children based on weight and age indicators is 19.6% which consists of 5.7% toddlers with poor nutrition and 13.9% of them with under nutrition. Based on data from the District Health Office of Kulon Progo (2014), the number of toddlers with under nutrition was 10.13%.

**Methods:** This study was an observational analytic cross-sectional design. It was conducted in July, 2019. The study population was mothers who had babies and or toddlers in Kalisoko. The sampling was carried out using random sampling with inclusion criteria of mothers who have babies and or toddlers residing in Kalisoko. Exclusion criteria in this study were mothers who were not willing to be sampled and mothers who did not have babies and or toddlers. Based on the established inclusion and exclusion criteria, a sample of 30 was obtained. The research instrument was a questionnaire. Statistical tests were performed using chi-square test.

**Results:** Chi-square test results showed a significant value of 0.072 ( $p < 0.05$ ), which means that there is no relationship between maternal knowledge of maternal attitudes about nutritional status in infants and toddlers in Kalisoko, Tuksono, Sentolo, Kulonprogo 2019. The risk prevalence value is 2.303 ( $> 1$ ) and the CI value between 1.083 and 4.897 so that it does not exceed 1, meaning that the knowledge of mothers which is not really good is at risk of 2.303 times compared to mothers who have good knowledge.

**Conclusions:** Knowledge is a risk factor for maternal attitudes about nutritional status in infants and toddlers but it is not statistically significant.

**Keywords:** Knowledge, Attitude, Nutritional status

### INTRODUCTION

1

Nutrition is one of the factors that can be used as a determinant of the quality of human resources. Daily food consumed must contain nutrients needed by the body, so that it can support optimal growth, and also can help in preventing the emergence of various diseases that can interfere with survival in children.<sup>1</sup>

Indonesia as one of the developing countries still faces considerable malnutrition problems. The problem of

malnutrition and poor nutrition in infants is still a fundamental problem in the world. The number of malnourished sufferers in the world reaches 104 million children.<sup>2</sup> The prevalence of under-fives underweight based on weight / age indicators is 19.6% consisting of 5.7% of toddlers with poor nutrition and 13.9% of toddlers under nutrition.<sup>3</sup> Based on District Health Office data of Kulon Progo, the number of malnourished children under five is 10.13%.<sup>4</sup>

Research conducted by Rinda shows that only about 62.5% of mothers can practice balanced feeding behavior

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in children, 75% have a positive attitude in providing balanced nutritious food and 54.2% of mothers only understand balanced nutritional food but can't practice it well.<sup>5</sup>

Parents as a factor that is very influential on fulfilling the nutritional status of children, because the role of parents in choosing food and exemplifying eating behavior is still very big.<sup>6</sup> The role of mothers in the family is very influential in preparing food. Therefore, the mother's knowledge is very necessary to improve the nutrition of family members.<sup>7</sup>

This is consistent with the research of Karolina et al showing that there is a relationship between mother's nutritional knowledge and the nutritional status of children under five in Gayo Luwes Regency. Health attitudes and behavior are influenced by internal factors, namely knowledge, perception, emotions, motivation, while external factors include the physical and non-physical environment.<sup>8</sup>

## METHODS

This study was an observational analytic cross-sectional design, because in this study the researcher wanted to find relationships between variables to explain the events or phenomena observed. It was conducted in Kalisoko, Tuksono village, Sentolo Subdistrict, Kulonprogo Regency, Special Region of Yogyakarta where this research was conducted to see the relationship between knowledge of mother's attitudes about nutritional status in infants and toddlers in Kalisoko. The study was conducted in July 2019. The population in this study is an affordable population or source population with a population of mothers who have babies and or toddlers in Kalisoko. The samples were taken using a random sampling technique with inclusion criteria namely mothers who have babies and or toddlers who live in the village of Kalisoko. Exclusion criteria in this study were mothers who were not willing to be sampled and mothers who did not have babies and or toddlers. Based on the inclusion and exclusion criteria that have been set, 30 samples were obtained.

The instrument in this study was a questionnaire. The variables used in this study were independent variables, namely the mother's knowledge about nutritional status in infants and toddlers and the dependent variable was the

mother's attitude about nutritional status in infants and toddlers.

Data analysis was performed using univariate analysis to describe the frequency distribution of respondents' characteristics and the frequency distribution of each independent variable and the dependent variable. Bivariate data analysis was performed on the independent variables with the dependent variable, namely the mother's knowledge of nutritional status in infants and toddlers. The presence or absence of relationships and statistical and biological significance was tested with the chi square test.

## RESULTS

Characteristics of respondents who had good knowledge were 21 mothers (65.63%), while those who have good knowledge were 11 mothers (34.38%) (Table 1). Of the 30 respondents, 16 mothers had good attitudes (53.33%) and 14 mothers had poor attitudes (Table 2).

**Table 1: Frequency distribution of mother's knowledge of nutritional status in infants and toddlers.**

Category	Frequency (person)	Percentage (%)
Good	21	65.63
Poor	11	34.38
Total	30	100.00

**Table 2: Frequency distribution of mother's attitudes about nutritional status in infants and toddler.**

Category	Frequency (person)	Percentage (%)
Good	16	53.33
Poor	14	46.67
Total	30	100.00

Chi-square test results obtained a significant value of 0.072 ( $p < 0.05$ ), meaning that there was no relationship between maternal knowledge of maternal attitudes about nutritional status in infants and toddlers in Kalisoko, Tuksono, Sentolo, Kulonprogo 2019. The risk prevalence value 2.303 ( $> 1$ ) and the CI value between 1.083 and 4.897 so that it does not exceed 1, meaning that the knowledge of mothers who are less good at risk is 2.303 times compared to mothers who had good knowledge (Table 3).

**Table 3: Chi-square test knowledge with mother's attitude about nutritional status in infants and toddlers.**

Maternal knowledge	Maternal attitude				Total		RP	CI (95%)	P
	Poor	Good	N	%	N	%			
Poor	8	3	11	36.7			2.303	1.083-4.897	0.072
Good	6	13	19	63.3					
Total	14	16	30	100.0					

## DISCUSSION

1  
The results showed that knowledge is a risk factor for maternal attitudes about nutritional status in infants and toddlers but it is not statistically significant. There is no statistical relationship because mother's overall knowledge is good. Rahmatillah's research shows that there is a relationship between knowledge and nutritional status in children under five ( $p=0.001$ ).<sup>9</sup> When a mother's knowledge about nutrition is still lacking, then the mother has a 62 times greater risk to have a nutritional status lacking.<sup>10</sup>

8  
A good mother's attitude will affect the nutritional status of infants.<sup>9</sup> A good mother's attitude is influenced by the knowledge of a good mother. The existence of counseling about health can increase maternal knowledge. The information provided in counseling can increase the mother's knowledge, the more often the mother gets health information the better the mother's knowledge about balanced nutrition for toddlers, the better it is in calculating the type and amount of food she gets for consumption. Counseling for balanced nutrition is important to increase knowledge of balanced nutrition for mothers who have toddlers. Efforts to improve the nutrition-health knowledge of mothers through counseling are the right steps taken by parents and supported by those who care for mothers and children. This means that the better the knowledge of nutrition and maternal health, the child's growth will also improve.<sup>11</sup>

Knowledge will make it easy for someone to absorb information and implement it in their daily behavior and lifestyle. Factors that influence knowledge are age, education, and experience. The more age, maturity level and strength of a person will be, the more mature they are in thinking, learning, and working so that the knowledge will increase.<sup>12</sup> Nutrition knowledge is often influenced by the level of education which has an impact on the role in the preparation of family meals, as well as the care and compliance of children.<sup>13</sup>

Nutrition counseling about complementary feeding can significantly increase maternal knowledge.<sup>14</sup> Yuliana et al stated that nutritional knowledge of toddlers in the initial measurement of 20.3 points increased to 26.4 points after counseling with leaflet media.<sup>15</sup>

Counseling also gives an influence on parental attitudes and parenting ( $p=0.000$ ).<sup>16</sup> Counseling with the media also shows the same results, namely the influence of counseling on parental attitudes by Melina et al, meaning counseling with the media and without the media shows significant influence on parental attitudes.<sup>17</sup>

Counseling also has an influence on maternal behavior.<sup>14</sup> The research of Dewi et al shows that the comparison of the average score of feeding practices for mothers of toddlers stunting 6-24 months increased from 33.6 points to 33.85 points.<sup>18</sup> Nutrition education such as the

provision of knowledge and provision motivation toward changing attitudes and feeding behavior influences the feeding behavior of children.

The correlation between knowledge, attitudes and behavior is very significant. Someone who has good knowledge has positive actions, the good attitude of respondents will also be followed by positive actions. The correlation between knowledge and activity is 0.284. The correlation between attitude and activity is 0.269. There is a significant correlation between knowledge, attitudes and activities indicating the relationship between the three variables.<sup>19</sup>

13  
Good maternal behavior has a relationship with maternal behavior in parenting the nutritional status of children under 7e.<sup>20</sup> Parenting toward children can have an impact on the nutritional status of toddlers, the better the parenting style, the greater the proportion of good nutritional status.<sup>21,22</sup>

Nutritional status has an impact on children's intelligence, the better the nutritional status, the higher their intelligence. Children with good nutritional status can improve learning achievement.<sup>23</sup> In a study conducted by Desfita et al, it is shown that children with normal nutritional status had an MDI score of 2.49 points higher than children with poor nutritional status. The mean MDI and PDI scores of children with normal nutritional status are higher than children with poor nutritional status. Chances of children with poor nutritional status to experience mental development delays are 1.56 times greater than children with normal nutritional status.<sup>24</sup>

3  
Nutrients play an important role in the first 2 years of life. Growth and development of brain cells requires adequate nutrition. Adequacy of nutrients at this time will affect the process of growth and development of children in the next period.

Other causes that contribute to the occurrence of malnutrition in children under five are education and low economic status.<sup>25</sup> The results of the research of Handono, showed that parental education, especially mothers significantly influence the nutritional status of children.<sup>26</sup> Wong et al, malnutrition problems in toddlers are directly caused by children not getting enough food that contains balanced nutrition.<sup>27</sup> Poor nutrition is also caused by infections in toddlers. Infection will disrupt metabolism, hormonal balance and immune function.<sup>28</sup> Another factor that is closely related to malnutrition is the pattern of child care in the family. Research conducted by Maseta et al showed that there was a significant relationship between child care patterns and child health care practices in families with nutritional status in children aged 6-36 months in Tanzania.<sup>29</sup> The next factor was health care, the low utilization of health services had an effect of 60-70% death of under five children with malnutrition.<sup>25</sup>



## CONCLUSION

1 Knowledge is a risk factor for maternal attitudes about nutritional status in infants and toddlers but it is not statistically significant.

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