



STUDY ON KNOWLEDGE AND ATTITUDES OF MOTHERS ABOUT NUTRITION STATUS FOR INFANTS AND TODDLERS IN CENTRAL INDIA

Dr. Avadhesh Diwakar

Assistant Professor, Department of Community Medicine, G. R. Medical College, Gwalior (M. P.)

ABSTRACT **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 is very high in the state of Madhya Pradesh. As per NFHS-4 data the prevalence of undernutrition in M. P. is 42.8%. **METHODS:** This study was an observational cross-sectional design. It was conducted from November 2019 to January 2020. The study population was mothers who had infants and or toddlers in Bhopal city of M. P. The sampling was carried out using random sampling with inclusion criteria of mothers who have infants and or toddlers residing in Bhopal M. P. Based on the established inclusion and exclusion criteria, a sample of 300 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 ($p < 0.05$), which means that there is significant relationship between maternal knowledge of maternal attitudes about nutritional status in infants and toddlers. The risk ratio value is 2.33 (> 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 2.33 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

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.¹

India 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.² in India the prevalence of under-fives underweights based on weight / age indicators is 35.8% and it is very high compare to national average in state of Madhya Pradesh the number of malnourished children under five is 42.8%.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.

A good mother's attitude will affect the nutritional status of infants. 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.

The study was planned with the objective to assess the Knowledge and attitudes of mothers about nutrition status for infants and toddlers in the state of Madhya Pradesh, where infant mortality is highest in the country and malnutrition is one of the key factor contributing to the very high IMR.

MATERIAL & METHOD

This study was an observational cross-sectional design, as the researcher want to find relationships between variables to explain the events or phenomena observed. It was conducted in Bhopal district of M. P. where this research was conducted to see the relationship between knowledge of mother's attitudes about nutritional status in infants and toddlers. The study was conducted from November 2019 to

January 2020. The study population were mothers who have babies and or toddlers. The samples were taken using a random sampling technique with inclusion criteria namely mothers who have babies and or toddlers who live in the different Bhopal city. 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 a sample of 300 mothers 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.

RESULT:

All the respondent mothers were categorized based on their knowledge and attitude about nutritional status of their babies in two groups. As per the study findings characteristics of respondents who had good knowledge were 119 mothers (39.66%), while those who have poor knowledge were 181 mothers (60.34%) (Table 1). Findings also shows that out of total 300 respondents, 142 (47.33%) mothers had good attitudes and 158 (52.67%) had poor attitudes (Table 2).

Table: 01 Frequency distribution of mother's knowledge of nutritional status in infants and toddlers

S. No.	Category	Frequency (person)	Percentage (%)
1.	Good	119	39.66
2.	Poor	181	60.34
	Total	300	100.00

Table: 02 Frequency distribution of mother's attitude of nutritional status in infants and toddlers

S. No.	Category	Frequency (person)	Percentage (%)
1.	Good	142	47.33
2.	Poor	158	52.67
	Total	300	100.00

Chi-square test results obtained a significant value ($p < 0.05$), meaning that there was significant relationship between maternal knowledge of

maternal attitudes about nutritional status in infants and toddlers. The risk ratio value 2.33 (>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: 03 Association between knowledge of mothers and attitude about nutritional status in infants and toddlers

Maternal knowledge	Maternal attitude					
	Good		Poor		Total	
	N	%	N	%	N	%
Good	86	72.27	33	27.73	119	36.7
Poor	56	30.94	125	69.06	181	63.3
Total	142	47.33	158	52.67	300	100.0
RR = 2.33,		CI = 1.083 – 4.897,		P < 0.05		

DISCUSSION

The results showed that knowledge is a risk factor for maternal attitudes about nutritional status in infants and toddlers. Rahmatillah's research shows that there is a relationship between knowledge and nutritional status in children under five ($p=0.001$).⁹ 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.¹⁰

A good 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.¹² 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.¹³

Counseling also has an influence on maternal behavior. 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.¹² 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.¹⁵

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. 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.

Other causes that contribute to the occurrence of malnutrition in children under five are education and low economic status. The results of the research of Handono, showed that parental education, especially mothers significantly influence the nutritional status of children.¹⁵ Wong et al, malnutrition problems in toddlers are directly caused by children not getting enough food that contains balanced nutrition.¹⁶ Poor nutrition is also caused by infections in toddlers. Infection will disrupt metabolism, hormonal balance and immune function. 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.¹⁸ 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.

CONCLUSION

Poor knowledge is a risk factor for maternal attitudes about nutritional

status in infants and toddlers, specially in the states like Madhya Pradesh where infant mortality and prevalence of malnutrition is very high.

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