Relationships of Mother Knowledge About Nutrition with Change of Weight Children Age 2–5 Years in Integrated Healthcare Center Sakura, Sawit Miri, Panggungharjo, Sewon, Bantul

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Abstract. The Quality of children today is a determinant of the quality of human resources (HR) in the future. Human development in the future begins with the development of today's children. Lack of knowledge about nutrition or the knowledge to apply information obtained in daily life is an important factor in malnutrition. The views and beliefs of the community, especially mothers about nutrition must be considered as part of several causal factors related to their food consumption. From a preliminary study that researchers from interviews with 15 mothers of toddlers with toddlers aged 2–5 years, it turns out that data obtained from the 15 toddlers there are 7 toddlers who in one month their weight has not changed and 8 toddlers have changed (weight gain). Purpose: To Know the relationship between mother's knowledge about nutrition and the weight changes of children aged 2–5 years at Integrated Healthcare Center Sakura, Miri Sawit, Panggungharjo, Sewon, Bantul. Method: This research uses descriptive analytic method, with cross sectional approach. The population in this study all mothers who have children aged 2–5 years. The total population in this study was 80 mothers, samples taken by accidental sampling with a sample size of 50 respondents. Retrieval of maternal knowledge data using questionnaires, weight data with weight weighing. Result: The analysis result using Chi square test results calculated X2 value of 27.315 with sig (pvaiue) of 0,000. With df-4 and the significance level of 5% (0.05), X2type = 9,488. Because X2count > X2tabet and p value < 0.05 then H0 is rejected. This means that there is a strong relationship between knowledge about nutrition and children's weight at the Integrated Healthcare Center Sakura. Conclusion: There is a relationship between knowledge about nutrition with a child's weight at the Sakura Integrated Healthcare Center.

Keyword: knowledge and change in body weight

1 Introduction

The quality of today's children is a determinant of the quality of human resources in the future. Human development of the future begins with the development of today's shildren. To prepare quality human resources in the future, children need to be prepared

so that children can grow and develop as optimally as possible according to their abilities [1].

The problem of nutrition is essentially a public health problem, but it cannot be tackled with a medical approach and health services alone The causes of nutritional problems are multifactorial, therefore the approach to overcoming them must involve various related sectors. Nutritional problems in Indonesia and in developing countries are still dominated by the problem of lack of protein energy (KEP), iron anemia problems, problems with iodine deficiency disorders (IDD), vitamin A deficiency problems (KVA) and obesity problems, especially in big cities that need to be addressed. Handled. Besides these problems, other micronutrient problems, such as zinc deficiency, have not been disclosed until now, due to the limitations of nutritional science and technology. In general, nutritional problems in Indonesia, especially PEM is still higher than other ASEAN countries [2].

Knowledge is the result of "knowing" and this happens after people have sensed a certain object. Sensing occurs through the five human senses, namely: the senses of sight, hearing, smell, taste and touch. Knowledge (knowledge) is the result of knowing from humans consisting of a number of facts and theories that allow a person to solve the problems he faces [3].

Lack of knowledge about nutrition or knowledge to apply the information obtained in daily life is an important factor in the problem of malnutrition. The views and beliefs of the community, especially mothers about nutrition, must be considered as part of several factors that influence their food consumption [4].

Child growth is influenced by food (nutrition) and genetic factors. The growth of children in developing countries, including Indonesia, is always behind compared to children in developed countries. At first, it was thought that genetic factors were the main cause. The growth slowdown then begins to occur in the 6–24 month period. The cause is a diet that does not meet the nutritional and health requirements. Genetic abilities that affect children's growth can appear optimally if they are supported by conducive environmental factors. What is meant by environmental factors here is nutritional intake. If there is pressure on nutritional intake, there will be growth faltering or so-called failure to grow [5].

Children are the love of a husband and wife, so parents must be responsible for the health and welfare of their children. Child welfare is a state of life with security, peace, and prosperity for children both spiritually and physically [6] A prosperous state will be achieved if the child's needs both spiritually and physically can be met, therefore an effort is needed to achieve this goal, namely by increasing the economic income of the family or parents. [7] In Indonesia, the interpretation of nutritional status using the anthropometric method uses the WHO standard (2007) [8]. Anthropometric measurements can be done by anyone through the provision of simple exercises. Meanwhile, to achieve optimal growth and development depends on its biological potential. The level of achievement of a person's biological potential is the result of the interaction of several interrelated factors, namely genetic factors, bio physico-psycho-social and behavioral environmental factors. A unique process and the result of different factors that give each child its own characteristics [9]. Children under five years old, healthy or malnourished, can be seen from their weight gain every month until they are at least 2 years old (baduta). If weight

gain corresponds to age according to a world health organization standard, he is well nourished. If it is slightly below the standard, it is called chronic malnutrition. If it is far below the standard, it is said to be malnourished. So the term malnutrition is a form of severe or acute malnutrition [10]. From a preliminary study that the researcher conducted on December 29, 2018 at the Sakura Posyandu, Miri Sawit, Bangunharjo, Sewon, Bantul. Data obtained on the number of toddlers aged 2–5 years at the Sakura Posyandu, as many as 80 toddlers. From the results of interviews with 15 mothers with toddlers aged 2–5 years, it turned out that data were obtained that from these 15 toddlers there were 7 toddlers whose weight did not change in one month and 8 toddlers experienced changes (weight gain). So far, the Sakura Posyandu has never provided counseling or information about nutrition to members. In addition, it turns out that at the Sakura Posyandu, there are 2 toddlers with poor nutritional status according to the toddler KMS.

Based on the background above, the researcher is interested in knowing the effect of mother's knowledge about nutrition with changes in body weight of children aged 2–5 years at the Sakura Posyandu, Miri Sawit, Bangunharjo, Sewon, Bantul.

2   Research Methode

This research uses analytical descriptive method, which is a research method that is carried out with the main aim of making a description or description of a situation objectively and how or why the phenomenon occurs [3]. This study will attempt to describe or describe in more detail the effect of mother's knowledge about nutrition on weight gain of children aged 1–2 years at Posyandu Sakura, Miri Sawit, Panggungharjo, Sewon, Bantul.

The approach used in this research is cross sectional research. Cross sectional research is a type of research that emphasizes the measurement/observation time of independent and dependent variable data only once at a time. In this type, the independent and dependent variables are assessed simultaneously at one time, so there is no follow-up [11].

3   Results and Discussion

This research was conducted at the IHC Sakura, Miri Sawit, Panggungharjo, Sewon, Bantul. The Sakura Posyandu is located in the Panggungharjo village area with the following boundaries: North side: Yogyakarta Municipality, South side: Pendowoharjo Village and Timbulharjo Village, West: Tirtonirmolo Village, East: Bangunharjo Village The total population of Panggungharjo Village is 25,727 people.

The total population of Panggungharjo Village is 25,727 people with an area of 564.54 ha. This village consists of 14 hamlets. One of them is Miri Sawit, where the Sakura Posyandu is located.

Sakura Posyandu activities are held once a month. The activities carried out at this posyandu include: weighing children, measuring height, providing complementary feeding, counseling on the implementation and exclusive breastfeeding, and also counseling on breastfeeding. The Sakura Posyandu is managed by local PKK women who are supervised by the Sewon Health Center.

The characteristics of the respondents in this study were grouped based on the age of the mother, number of children, mother's education, mother's occupation, age of the child, and gender of the child.

Based on Table 1, it can be seen that some of the respondents are mothers aged between 21–30 years, namely there are 27 respondents with a percentage of 54.0%. In addition, there are 6 respondents (12.0%) aged less than or equal to 20 years, and 17 respondents (34.0%) aged between 31–40 years. Most of the respondents mothers have 1 child, namely there are 29 respondents with percentage 58.0%. In addition, there are 16 respondents (32.0%) have 2 children, and 5 respondents (10.0%) have 3 children. Respondent's mother is educated up to SMA, there are 31 respondents with a percentage of 62.0%. In addition, there are 3 respondents (6.0%) with elementary school education, 9 respondents (18.0%) with junior high school education, and 7 respondents (14.0%) educated up to university level. Mother respondents are housewives, there are 29 respondents with a percentage of 58.0%. In addition, there are 4 respondents (8.0%) work as farmers, 11 respondents (22.0%) work as private employees, and 6 respondents (12.0%) work as civil servants. Respondents of children aged between 24–35 months, namely there are 22 respondents with a percentage of 44.0%. In addition, there are 16 respondents (32.0%) aged between 36–47 months, and 12 respondents (24.0%) aged between 48–60 months. Most of the female respondents, namely 29 respondents with a percentage of 58.0%. While the other 21 respondents (42.0%) were male. Female respondents, namely 29 respondents with a percentage of 58.0%. While the other 21 respondents (42.0%) were male.

Based on Table 2, it can be seen that most of the respondents have good knowledge about nutrition, namely there are 24 respondents with a percentage of 48.0%. In addition, there are 19 respondents (38.0%) who have sufficient knowledge about nutrition, and 7 respondents (14.0%) have less knowledge about nutrition.

Based on Table 3, it can be seen that the child's weight from most of the respondents is increasing, that is, there are 28 respondents with a percentage of 56.0%. In addition, there are 16 respondents (32.0%) with fixed body weight, and 6 respondents (12.0%) with weight loss.

Based on Table 4, it can be seen that from 24 respondents who have good knowledge about nutrition, 20 respondents (83.3%) have increased their child's weight, 3 respondents (12.5%) have a fixed weight, and 1 respondent (4.2%) the child's weight has decreased. Of the 19 respondents who have a sufficient level of knowledge about nutrition, 7 respondents (36.8%) have increased their child's weight, 11 respondents (57.9%) have fixed their child's weight, and 1 respondent (5.3%) has their child's weight. Down. Meanwhile, of the 7 respondents who had a low level of knowledge about nutrition, 1 respondent (143.3%) their child's weight increased, 2 respondents (26.8%) their child's weight remained constant, 4 respondents (57.1%) their child's weight decreased. To test the relationship between knowledge about nutrition and children's weight at Posyandu Sakura, Miri Sawit, Panggungharjo, Sewon, Bantul, an analysis can be done using the fisher exact formula and the contingency coefficient values in Table 10 below:

Based on Table 5. The fisher exact value is 21.441 with a sig (PvaLue) of 0.001. With df = 4 and the significance level (a) is 5% (0.05) p value < 0.05 then H0 is rejected. This means that there is a relationship between knowledge about nutrition and

Table 1. FREQUENCY DISTRIBUTION OF RESPONDENT CHARACTERISTICS

No	*Karakteristik Ibu*	*N*	*%*
1	Mother's Age		
	<20Age	6	12,0
	21–30 Age	27	54,0
	31–40 Age	17	34,0
2	Number of children		
	1 Person	29	58
	2 Person	16	32
	3 Person	5	10
3	Education		
	Primary school	3	6
	Junior High School	9	18
	Senior High School	31	62
	College	7	14
4	Work		
	Housewives	29	58
	Farming	4	8
	Private	11	22
	Civil Service	6	12
5	Child of Age		
	24–35 Age	22	44
	36–47 Age	16	32
	48–60 Age	12	24
6	Gender		
	Woman	29	58
	Man	21	42
	Total	**50**	**100**

Table 2. FREQUENCY DISTRIBUTION BASED ON KNOWLEDGE OF NUTRITION

No	*Pengetahuan Tentang Gizi*	*N*	*%*
1	Baik	24	48,0
2	Cukup	19	38,0
3	Kurang	7	14,0
	Jumlah	50	100

Table 3. NUTRITION DISTRIBUTION FREQUENCY OF CHANGES IN CHILDREN'S BODY WEIGHT

No	*Berat Badan Anak*	*N*	*%*
1	Increase	28	56,0
2	Fixed	16	32,0
3	Down	6	12,0
	Jumlah	50	100

Table 4. FREQUENCY DISTRIBUTION BASED ON RELATIONSHIP KNOWLEDGE ABOUT NUTRITION AND CHILD WEIGHT

No	Knowledge of Nutrition	Table Column Head							
		Increase		*Fixed*		*Down*		*Total*	
		n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
1	Good	20	83,3	3	12,5	1	4,2	24	100
2	Cukup	7	36,8	11	57,9	1	5,3	19	100
3	Kurang	1	14,3	2	28,6	4	57,1	7	100
	Jumlah	**28**	**56**	**16**	**32**	**6**	**12**	**50**	**100**

Table 5. RESULTS OF THE RELATIONSHIP BETWEEN KNOWLEDGE ABOUT NUTRITION AND CHILDREN'S BODY WEIGHT

Free Variables	*Bound Variables*	*N*	*A2*	*p*	*Koefisiaen Contigency*	*Information*
Mother's Knowledge of Nutrition	Changes in body weight	50	21,442	0,001	0,594	signifikan

children's weight at Posyandu Sakura. Based on Table 5, it can be seen that the value of the contingency coefficient is 0.594.

4 Result and Discussion

The results of the research at the Sakura Posyandu showed that of the 50 respondents who were taken, 48.0% of the respondents had good knowledge about nutrition, namely, 38.0% had sufficient knowledge about nutrition, and 14.0% had poor knowledge about nutrition.

Knowledge (knowledge) is the result of knowing from humans consisting of a number of facts and theories that allow a person to solve the problems he faces. While nutrition is a process of organisms using food that is consumed normally through the processes of digestion, absorption, transportation, storage, metabolism and excretion of substances that are not used to maintain life, growth and normal function of organs, and produce energy. Nutrients provide functions in the body, including: providing energy, being used for tissue growth and maintenance, regulating body processes. If the contingency coefficient value is between 0.40 - 0.599 then the relationship between the two variables is sufficient. The contingency coefficient value in this study is 0.594 or between 0.40–0.599. Therefore, it can concluded that there is a fairly strong relationship between knowledge about nutrition and children's weight at the Sakura Posyandu.

The results of the research at the Sakura Posyandu showed that of the 50 respondents who were taken, there were 56.0% respondents with increased child weight, 32.0% with fixed body weight, and 12.0% with decreased body weight. Body weight is the result of an increase/decrease in all tissues in the body, including bone, muscle, fat, body fluids, etc. Body weight is used as the best indicator at this time to determine the nutritional status and growth of children [13].

Information on weight was obtained from weighing results. The baby's weight was weighed with an infant scale, while the child was on a standing scale. Babies are weighed in a supine or sitting position without clothes, while children are weighed in a standing position without shoes with minimal clothing [14].

The results of the research at the Sakura Posyandu showed that of the 24 respondents who had good knowledge about nutrition, 83.3% of their children's weight increased, 12.5% of their children's weight remained constant, and 4.2% their child's weight decreased. Of the 19 respondents who had a sufficient level of knowledge about nutrition, 36.8% of their children's weight increased, 57.9% their weight remained constant, and 5.3% their weight decreased. Meanwhile, of the 7 respondents who had a low level of knowledge about nutrition, 143.3% of their children's weight increased, 26.8% their weight remained constant, and 57.1% their weight decreased.

The results also show that the calculated X value is 27.315 with a sig (p-value) of 0.000. Because X2count > X2table and p value < 0.05, H0 is rejected. This means that there is a relationship between knowledge about nutrition and children's weight at Posyandu Sakura.

Lack of knowledge about nutrition or knowledge to apply the information obtained in daily life is an important factor in the problem of malnutrition. The views and beliefs of the community, especially mothers about nutrition science, must be considered as

part of several causal factors that affect their food consumption [15]. This means that with good knowledge about nutrition, mothers will understand and also understand the importance of nutrition for children, so that children's weight can also be monitored properly, in other words, that weight gain in toddlers is strongly influenced by mother's knowledge about nutrition.

There are several factors that influence knowledge, namely [16]: age, intelligence, environment, socio culture, education, information, and experience. Education is a human need that can be used as a means of self-development. The higher the education, the easier it is to receive and develop knowledge and technology. In the research area, the respondent's education is good. The higher the education of parents, the better the nutrition of their children.

Nutrients provide energy for the body, regulate processes in the body and make growth and tissue repair smooth. A child with good nutrition will have a normal weight and tend to increase. Therefore, a mother should increase her knowledge about nutrition, so that her child's nutritional intake is good and the child's weight will increase.

5 Conclusion

This study was conducted to determine the relationship between knowledge about nutrition and children's weight at Posyandu Sakura in 2018. The conclusions of this study are as follows:

1. The level of knowledge about nutrition in Posyandu Sakura shows that 48.0% of respondents have good knowledge about nutrition, that is, 38.0% have sufficient knowledge about nutrition, and 14.0% have less knowledge about nutrition.
2. Children's weight at Posyandu Sakura shows that 56.0% of respondents with increased child weight, 32.0% with fixed weight, and 12.0% with decreased body weight.
3. Based on the results of the chi square test, the calculated X value is 21.441 with a sig (p-value) of 0.000.
4. Because X2count > X2table and p value < 0.05, H0 is rejected. This means that there is a relationship between knowledge about nutrition and children's weight at Posyandu Sakura.

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