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# Health Counseling to Enhance Maternal Knowledge About Nutrition in Toddlers

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## ABSTRACT

**Background:** The level of maternal knowledge about high nutrition can affect the diet of baby and will certainly affect nutritional status of toddlers. The knowledge can be generated from several ways, one of them is counseling. Counseling is one method can be used easily to provide the knowledge about the nutrition of toddlers to mothers.

**Objective:** The purpose of this study is to determine the effect of health counseling about nutrition of toddlers on mothers in the posyandu Kauman Yogyakarta.

**Methodology:** This study used quasy experimental with pretest and posttest. The populations in this study include all mothers of children who came to the posyandu Kauman Yogyakarta with the sampling technique with total sample are 26 respondents. The processing data used the Wilcoxon test because the data is not normally distributed.

**Results:** The results shows that there is an effect of health counseling in increasing maternal knowledge about nutrition of baby in Kauman Yogyakarta posyandu ( $p = 0.000$ ).

**Conclusion:** there is an effect of health counseling in increasing maternal knowledge about nutrition of children in posyandu Kauman Yogyakarta.

**Keywords:** Health education, knowledge, nutrition.

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## 1. INTRODUCTION

The development of nutritional problems in Indonesia is more complex, because in addition to still facing the problem of malnutrition, the problem of excess nutrition is also must be solved seriously. Riskesdas results in 2007 and 2013 shows that underweight conditions increased from 18.4% to 19.6%, stunting also increased from 36.8% to 37.2%<sup>1</sup>. According to the Regional Food and Nutrition Action Plan (RAD-PG) 2011-2015 Yogyakarta malnutrition have impacts such as low work productivity, reduced cognitive ability and loss of resources due to high health costs.

Malnutrition is associated with mortality and morbidity. Infant mortality rates are closely related to the nutritional status of children. Children who suffer from poor nutrition generally have low immunity and this makes them vulnerable to infections that can cause the mortality. The low nutritional status of children school will have a negative impact in improving the quality of human resources<sup>2</sup>. Based on the results of the study, several factors that influence nutritional status are low family income, lack of maternal knowledge and a lack of levels of protein energy consumption in children.

The level of maternal knowledge about high nutrition can affect the diet of toddlers and surely will give the affect toward nutritional status of toddlers. If the mother's knowledge is good, she

will be able to choose and provide good food and have good quality and quantity, therefore, the number of nutritional adequacy for toddlers will be fulfilled<sup>4</sup>. People who have good knowledge will use rational thinking and reasoning in fulfilling nutrition. Lack of maternal knowledge about nutrition cause a mother's behavior in paying attention to the fulfillment of nutrition in her toddler become less optimal. This is evident from the result of the study that mothers with lack of knowledge about nutrition is worse in preparing menus, choosing, processing and serving of food for their children therefore food nutrient is low<sup>4</sup>.

Based on this case, one of the efforts can be done is through increasing the knowledge. Knowledge enhancement can be done using various methods, such health promotion through health education. Counseling has a significant influence on maternal knowledge about nutrition for infants in the posyandu Dermo<sup>5</sup>. Providing counseling with practice has a significant influence compared to counseling without being accompanied by practice<sup>6</sup>.

## 2. MATERIAL and RESEACRH METHODS

This research belongs to quasi-experimental research with the intervention group. To determine the increase of knowledge maternal of nutrition in infants, pre and post tests were conducted.

The samples were taken using totality sampling technique, 26 respondents from mothers who have toddlers in Posyandu Kauman Yogyakarta. The data were collected using questionnaire given to the respondents. It consists of the variables of knowledge, before and after the intervention of the health education. The confounding variable is controlled using restriction. The data were analyzed using non-parametric Wilcoxon statistics because they were not normally distributed.

## 3. RESULT

This research was conducted in Posyandu Kauman Yogyakarta Special Region. The samples were mothers who have toddlers' total 26 respondents. The results are based on the knowledge of mothers about nutrition. The results are presented in Table 1 below:

Table 1. The frequency distribution is based on the variables of knowledge in the nutrition of toddlers in Posyandu Kauman Yogyakarta 2018

Variable	before giving the health education	after the health education
Knowledge	20.46	21.42

Table 1 illustrate that in the variable of knowledge, there is an increase of 0.96. Based on normality test done before the paired t-test, the data were not normally distributed. The next step is transformation of data, and then another normality test is repeated. The final results were stable, showing that the data were not normally distributed that to solve<sup>7</sup> the researchers chose to apply non-parametric Wilcoxon test. Wilcoxon test results are presented in Table 2 below:

Table 2. Results of Wilcoxon test on the variables of knowledge in the nutrition of toddlers in Posyandu Kauman Yogyakarta 2018

Variable	Median (Minimum-Maximum)	P value
Knowledge before using health education	21 (16-21)	0.000
knowledge after using health education	21 (20-22)	

Wilcoxon's test: 0 subjects knowledge decreased, 10 fixed and 16 increases

Table 2 illustrates the results of the Wilcoxon test that using the health education has proven to increase the knowledge of the respondent. It can be seen from the biological significance that the number of respondents whose score of knowledge of nutrition increased by 16 people and respondents whose score remains the same is as much as 10 people. Statistically, indicated by the value of  $p=0.000$  both on knowledge variable, it means that there are differences between the mean values of knowledge before and after using the health education.

#### 4. DISCUSSION

The statistic test showed a difference in the mean score of knowledge of the respondent about nutrition in toddlers before and after using the health education, with the value of  $p=0.000$ . The difference arises since the respondents participate in health education, providing them new information about nutrition in toddlers. Counseling is a good communication because of the two-way relationship between the presenter and the material given so that information on nutrition for toddlers can be understood directly and ultimately the knowledge of the mother will be good about nutrition in of ddlers. This is supported by previous research that there is an effect of health counseling on maternal knowledge about the nutritional status of toddlers in the posyandu in the Work Area of the Puskesmas Antang Perumnas, that by providing information needed by respondents by listening directly and asking if they do not understand what is being delivered by the presenter<sup>8</sup>.

Counseling provided can improve maternal knowledge, that the level of knowledge of respondents before being given counseling has increased after being given counseling, from 70% to 100% and has been in good category<sup>9</sup>. This is also supported by research conducted in the working area of the Puskesmas Sidomulto RI in Pekanbaru that there are differences in knowledge about exclusive breastfeeding before and after being given counseling<sup>10</sup>. The influence of nutritional counseling of nutrition knowledge of postpartum mothers in Puskesmas Likupang Timur, this is also influenced by the level of education because a higher level of education will make it easier for a person or group of people to absorb information and implement it in their daily behavior and suction style<sup>11</sup>.

Counseling of knowledge about nutrition in infants given to mothers is not only giving nutrition-related material, but is accompanied by direct practice from managing of menus, selecting food ingredients and processing healthy food in accordance with the nutritional adequacy of children. The results of this study are in accordance with previous studies that the provision of health counseling with the lecture method and accompanied by practice there is a significant influence with the increased knowledge of the mother Kosagi Iwul Bogor<sup>12</sup>. Providing counseling with the MP ASI Module coupled with the practice of making MP ASI is more effective to improve maternal knowledge regarding balanced MP ASI administration in children compared to those who are only given counseling<sup>13</sup>.

The mother's behavior is influenced by the knowledge gained from the counseling process. Similarly with previous studies there is an influence of nutritional counseling with changes in students breakfast behavior before and after being given counseling<sup>14</sup>. There is a tendency that the better the mother's behavior in fulfilling child nutrition, the better the nutritional status of the child will be<sup>15</sup>. If the mother's knowledge is good and is supported by good behavior in fulfilling the nutrition status of the toddler, the nutrition will be fulfilled properly. Maternal behavior in parenting shows a significant relationship with the nutritional status of toddlers<sup>16</sup>. This is supported by previous research that maternal knowledge has a significant effect on nutritional status in infants aged 1-3 years<sup>17</sup>.

#### 5. CONCLUSIONS AND RECOMMENDATIONS

There are differences in the mean scores of knowledge before and after using the health education in Posyandu Kauman Yogyakarta. As the media of health promotion, the health education is proven to be effective in improving the knowledge on nutrition of toddlers.

Primary Health Care (PHC) can mentoring posyandu program in schools by providing counseling on an ongoing basis, especially on nutrition and skinning the Primary Health Care (PHC) can reduce the impact of malnutrition.

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