



The Effect of Nutrition Training on The Mothers Knowledge Whose Children Are Picky Eaters

Reni sofiyatin¹, Lalu Khairul Abdi²

¹⁻² Poltekkes Kemenkes Mataram, Indonesia

✉ reni.sofiyyatin72@gmail.com, , Phone: +6282341899396

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Abstract

Background: Preschool age (4-6 years) children experience several eating problems, one of which is picky eating. One of the factors that influence picky eater behavior in children is the practice of parenting practices adopted by parents. A good mother's knowledge the expected to shape attitudes and behaviors that can shape children's excellent and healthy eating habits. Objectives: The study of the effect of nutrition training on mothers on the knowledge of mothers whose children experience picky eating. Method: Quasi-experimental research design with pre-post only group design, statistical analysis using Paired T-Test. Results: The level of knowledge of mothers before training with fewer categories was 19 people (63%); after training, the level of knowledge was 19 people (64%) and good one person (3%). Training effects increase the knowledge of mothers whose children experience picky eating ($p = 0.006 < \alpha = 0.05$). Before training, the average knowledge score was 53 points, increasing to 61.3 points after training with an average increase of 8.3 points. Conclusion: Training increases the knowledge of mothers whose children experience picky eating ($p = 0.006 < \alpha = 0.05$).

Keywords : Knowledge; Nutrition Training; Picky Eater

BACKGROUND

Good nutritional status affects the growth, development, intelligence, and emotions of children aged 4-6 years (Hardianti, Dieny, and Wijayanti 2018). Children at preschool age experience psychological development which is marked by children becoming more independent and expressing their emotions more so that children's behavior begins to form (Bahagia et al. 2018)

One of the problems faced by children is picky eating or picky eating. Picky eating is a behavior that characteri by being limited in food variety. Amount of intake, old eating, refusing new food, little interest in food (Taylor et al. 2015)

One of the factors associated with Picky eating behavior is the history of children getting food caused

by parenting patterns. Mother plays a vital role in parenting.

Mothers are often responsible for determining the portion of the child's food, the type of food given. Studies on toddlers and preschoolers show that the consumption patterns of parents, especially mothers, influence a child's consumption. Research (Kutbi 2021), children of obese mothers have a higher chance of being in a picky eater group with low fruit, vegetable, and protein consumption and a higher intake of trans fatty acids. What the mother consumes will affect the child's behavior in consuming food. Eating habits, the type of food that parents like and dislike, will pass down to their children (Sudjatmoko 2011). Mother's education level affects picky eating behavior; preschool children who have picky eater

behavior most have younger mothers with lower education levels than children who are not picky eaters (Xue et al. 2015). The study results (Cerdasari, Helmyati, and Julia 2017) showed that the appearance of food that was not varied and the pressure to eat that the mother gave in feeding influenced the occurrence of picky eaters in children.

Picky eater conditions can affect the nutritional status of children, where children who experience eating behavior disorders will cause the formation of a mindset in choosing food until adulthood. The proportion of the incidence of picky eaters is relatively high in preschool-age children; with increasing age, the incidence increases; the results of research in India show the incidence of picky ether in children aged three years is 56.1%, an increase of 64.7% in children aged four years and 68% at the age of 5 years (Kumar et al. 2018) in Indonesia shows the proportion of picky eaters in preschool children is 52.4% (Hardianti, Dieny, and Wijayanti 2018).

Many factors influence the occurrence of eating problems in children, especially those related to picky eating. Knowledge of maternal nutrition, one of which will have an impact on children's food consumption patterns. So in this study, the aim was to determine the effect of nutritional training on the level of knowledge of mothers who have children who experience picky eaters.

METHOD

a quasi-experimental design with one group pre-posttest design. The subjects were 30 people who met the inclusion criteria, namely mothers who have children aged 4-6 years and attend TK IT Sholeh Children Mataram & TK Hamzanwadi who experience picky eater eating behavior, are not illiterate and are willing to sign the informed consent. Eating behavior with the help of a modified questionnaire referring to the Child Eating Behavior

Questionnaire (CEBQ) (Wardle et al. 2001). Measurement scale with Likert scale 1-5 (never = 1, rarely = 2, sometimes = 3, often = 4, always = 5). The score for each subscale is searched for the mean (mean) and compared with the standard deviation of each subscale. Children's eating behavior consists of 8 types of children's eating pattern items divided into two large groups: food avoidant consisting of food fussiness, emotional undereating, satiety responsiveness, slowness in eating, and the second group food approach consisting of enjoyment of food, desire to drink. Emotional overeating, food responsiveness Children are picky eaters if one or most of them behave in the food avoidant category. The mother's knowledge before and after the intervention by enumerators with the help of a questionnaire instrument. Mother's Knowledge Data before and after the training from the correct answers, then divided by the total answers multiplied by 100% and categorized into: Less, score <60%; Medium, score 60-80%; Good, score >80%. Mother's knowledge data before and after training were statistically analyzed using Paired T-Test.

The research has passed the ethics committee of the Mataram Health Polytechnic Kemenkes RI No.

LB.02.01/3.7/334.1/2019 dated 26 June 2019.

RESULTS

Children's eating behavior

Data regarding children's eating behavior using the Child Eating Behavior Questionnaire (CEBQ) compiled by Wardle et al. (2001) with a modification of the research conducted by Cerdasari et al. (2017), re-categorizing the subscales on the CEBQ questionnaire, namely the food avoidance and food approach subscales. . In this study, the determination of children's eating behavior is in the picky eater category if the child has one or more criteria in the

food avoidance group. The characteristics of children's eating behavior table 1.1

Table 1.1. Characteristics of eating behavior of children aged 4-6 years (n=30)

Aspects of eating behavior	n	%
Food Advance		
<i>Food fussiness (FF)</i>	30	100
<i>Emotional undereating (EUE)</i>	30	100
<i>Satiety responsiveness (SR)</i>	7	23.3
<i>Slowness in eating (SE)</i>	30	100
<i>Food Approach</i>		
<i>Enjoyment of food (EF)</i>	15	50
<i>Desire to drink (DD)</i>	14	46.7
<i>Emotional overeating (EOE)</i>	14	46.7

Mother's characteristics

Of the 30 research subjects, the age of the mother in the adult category (26-45 years) was 26 people (87%), the highest level of education was in the middle category (junior high school and high school) as many as 21 people (70%), most of the work did not work—as many as 24 people (80%).

Mother's knowledge before and after training

Mother's knowledge was collected using a questionnaire consisting of 20 questions, namely material about picky eaters, nutrition, and child development. Mother's knowledge before the training showed 19 people (63%) in the poor category and 11 people (37%) in the medium category while after the training the mother's knowledge in the less category

was ten people (33%) and 19 people (64%) in the medium category and one person (3%) in the excellent category.

Effect of nutrition training on mother's knowledge

The analysis will determine the effect of training on the mother's knowledge using a T-Test (paired samples test). The results of the analysis are in table 2.2 and table 2.3. showed an effect of training on increasing the knowledge of mothers whose children had picky eaters ($p= 0.006 < = 0.05$). Before training, the average knowledge score was 53 points, increasing to 61.3 points after training with an average increase of 8.3 points.

Table 2.2. Mean and Standard Deviation of knowledge scores before and after training

Variable	average±SD
Knowledge score before training	53± 12.8
Knowledge score after training	61.3± 16,2

Table 2.3. Effect of training on mother's knowledge

Variable	average±SD	P
Knowledge score before and after training	8.3±15,4	0.006

DISCUSSION

Table 1.1 shows that children tend to eat behavior in the food avoidance group; as many as 30 (100%) children behave in food fussiness (FF), Satiety responsiveness (FR), Emotional undereating (EUE), and as many as seven people (23.3%). In line with Tharner et al. (2014), 5.6% of children with picky eater behavior by high values of food avoidance on the subscale of slowness in eating, food fussiness, satiety

responsiveness. Food Fussiness (FF) is fussy eating where children have difficulty eating and are only interested in certain foods/picky eaters. Meanwhile, emotional undereating (EUE) is a decreased emotion related to eating behavior where the child is sad or angry; the child eats little, and slowness in eating (SR) is a child who gets full quickly. The tendency of children to behave in the food avoidant group affects children's eating patterns, one of which is that children tend to consume certain foods so that it will affect the fulfillment of nutrients needed by the body.

According to Taylor et al. (2015), factors that influence the occurrence of eating problems in children, especially those related to picky eater behavior, include a history of children getting food, feeding patterns, parenting patterns addition to the appearance of food that is not varied and pressure to eat given by the mother (Cerdasari et al., 2017) and also the mother's level of education (Xue et al., 2015). According to Sudjatmoko (2011), parents' eating habits will decrease. The characteristics of mothers who have picky eater children at maternal age are mainly in the adult category. However, mothers' level of education is partly in the middle category (junior high school/high school). A mother's knowledge by education level; the higher a person's education, the easier it is to accept new things. Likely to cause the mother's level of knowledge related to picky eaters and nutrition to be mainly in the poor category. Of the 30 mothers who have children with picky eater behavior, most of them have the highest level of education in the low/medium category and the most knowledgeable in the lower category. The research of Xue et al. in China states that preschool children who have picky eater behavior have younger mothers with lower levels of education than children who are non-picky eaters (Xue et al. 2015).

The nutrition training provided in this study affected the mother's knowledge. There was an

increase in the mother's knowledge. Before the training, the mother's knowledge level was 63% in the poor category. After the training, there was an increase to 64% in the medium category and 3% in the excellent category. Based on tables 4.2 and 4.3, there is an effect of training on increasing the knowledge of mothers whose children are picky eaters ($p = 0.006 < 0.05$). Before training, the average knowledge score was 53 points, increasing to 61.3 points after training with an average increase of 8.3 points. The results of the research by Cendasari et al. (2018), which provided training to mothers with picky eater children, there was a significant difference in the mother's knowledge and skills and the child's fussiness value ($p < 0.05$). According to Notoatmodjo (2003), the training provided can result in changes and increases in personal knowledge supported by appropriate methods and media that can support increased knowledge in the training process. The lecture method accompanied by the practice of preparing menus is one of the supporting factors in this research; according to Notoadmojo (2017), the target of more than 15 people in the lecture method is in higher and lower education. Based on the study results, parents generally realize that their children have difficulty eating. However, mothers do not correctly understand the term picky eater, its causes, and how to overcome it. The parenting pattern used is the one that influences the picky eater behavior (Cendasari et al., 2017), so a study is needed for further studies related to the factors that influence parenting, especially those that affect the child's picky eater behavior, not only from the mother's knowledge about nutrition with a more significant number of subjects.

CONCLUSION

Based on eating behavior, as many as 30 children aged 4-6 years who behaved as picky eaters were 100% in the food avoid category (refusing to

eat), namely food fussiness (FF), emotional undereating (EUE), and slowness in eating (SR). Mother's level of knowledge before training in the less category was 19 people (63%). After the training, the level of knowledge in the medium category was 19 people (64%), and one person was good (3%). Training increases the knowledge of mothers whose children are picky eaters ($p = 0.006 \leq 0.05$). Before training, the average knowledge score was 53 points, increasing to 61.3 points after training with an average increase of 8.3 points.

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