

Analysis of Differences in Knowledge of Homemade Complementary Food of Mothers of Under-Two Children

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Abstract: Under-two children are a quite vulnerable because they are in a transition period from breast-fed to having complementary feeding. If children at this age are not adequately nourished by Complementary Food (CF), it will result in growth disturbance and malnutrition. The authors were interested in studying the improvement of knowledge of homemade CF provision through education for mothers of under-twos in the working area of PUSKESMAS Meurebo. The purpose of this study was to find out the differences in the mothers' knowledge of homemade CF after they received the education. This study was an observational analytic study with a cross sectional design. The sample in this study was 78 mothers of under-twos that was chosen by using accidental sampling. The data were collected by using questionnaires and were analyzed by using the Wilcoxon signed-rank test. The results showed that the p-value was 0.000 ($p < 0.05$), meaning that there were differences in the mothers' knowledge of homemade CF provision before and after receiving the education. It is concluded that there is a difference in knowledge of mothers before and after receiving an education on provision of homemade CF.

Keywords: Complementary Food (CF), Education, Homemade, Knowledge

Introduction

Complementary Food (CF) refers to the food that is given to children at the age of 6 to 24 months to complement breast milk, in order to support their growth and development. At this age, breast milk only meets 60%-70% of the nutritional needs of the children, so that they need adequate CF while kept being breastfed until the age of 24 months or 2 years. Under-two children are a quite vulnerable age group because they are in a transition period from breast-fed to having complementary feeding. If children at this age are not adequately nourished by CF, it will result in growth disturbance and malnutrition. Therefore in order to overcome the nutritional problem, it is necessary to improve the quantity and quality of CF. (KEMENKES, 2010). The results of several studies show that the condition of malnutrition in children is due to improper complementary feeding behavior. The ignorance of feeding children appropriately and unhealthy lifestyle both directly and indirectly become the main cause of the malnutrition in children, especially in under-two children (Sulistyaningsih, 2011).

Aceh Province is one of the provinces which annually contributes to wasting problems by 17.7% in 2015, 13.3% in 2016, and 12.8% in 2017. Based on the report of the assessment of nutritional status of Aceh in 2017, it showed that the percentage of wasting in under-five groups was 9.1%, which was lower than in under-two groups with 17.1% (DINKES Aceh, 2007). West Aceh Regency is one of the regencies in Aceh Province which annually contributes to the nutritional problems in the province, including nutritional problems in under-twos. Based on the report from DINKES Aceh, the number of under-twos that suffered from wasting was 13.7% in 2015, 7.3% in 2016, and 8.9% in 2017. Meanwhile, the stunting problems were reported at 36.3% in 2015, 25.2% in 2016, and 33.2% in 2017 with the highest cases occurring in the area of Meurebo District.

The initial survey in Meurebo district revealed that this area had diverse and abundant natural resources, even they were able to market their agricultural products and fisheries to other regions outside the province. However, unfortunately, this excellence did not result to a good nutritional status of the people in this region, especially of under-twos. The quantity and quality of the available natural resources in this region, in reality, could be utilized to fulfill the nutrition of the people, such as by making CF at the household level with cheap and affordable prices.

Based on a preliminary survey of five mothers of under-two children in the working area of the community health center (Puskesmas) of Meurebo, it was found that there was still a lack of knowledge and skills in the mothers to process and combine the basic ingredients of making CF, causing undesirable taste and unbalanced nutrition towards the nutritional fulfillment of the under twos. The efforts to improve the nutritional status of the under-twos through improving the parenting and increasing the knowledge of public, especially of mothers, are inseparable from overall nutritional improvement efforts. Based on these problems, the authors were interested in scientifically reviewing the increase in knowledge of mothers of under-two children in providing homemade CF through education in the working area of the Puskesmas of Meurebo.

Methods

This study was an observational analytic study with a cross sectional design, where the variables are measured only once at the same time. This study used a comparative test because the authors wanted to know the differences in knowledge of mothers before and after given education about homemade CF. It was conducted in the working area of Puskesmas of Meurebo.

The population in this study was all mothers who had under-two children (> 6–24 months). The sample was 78 mothers that was chosen by using accidental sampling. The data were collected by using questionnaires to measure the knowledge of mothers before and after given education about homemade CF. The data then were analyzed by using the Wilcoxon signed rank test because they were not normally distributed.

Result

Table 1. Frequency distribution on age, level of education and occupation Characteristics Frequency Percentage

Characteristics	Frequency	Percentage (%)
Age of Mothers		
19-25 y.o.	16	20.51
26-30 y.o.	38	48.71
31-35 y.o.	14	17.94
36-41 y.o.	10	12.8
Total	78	100
Level of Education		
Elementary School	3	3.8
Junior High School	18	23
Senior High School	45	57.69
Higher Education	12	15.38
Total	78	100
Occupation		
Housewife	71	91.02
Civil Servant	6	7.69
Entrepreneur	1	1.28
Total	78	100

Table 2. Differences in knowledge of mothers before and after given education about homemade CF

Variable	Mean	SD
Before the education	14.87	3.529
After the education	18.25	1.945

p-value = 0,000

Discussion

The results of this study showed significant values in the two knowledge variables of mothers of under-twos before and after given education about homemade CF, with a p-value <0.05. Thus, it can be concluded that there was a difference in the knowledge of mothers before and after given education about homemade CF in the working area of PUSKESMAS Meurebo. This result is in accordance with the theory that explains that knowledge is one of the critical factors for a successful CF provision. The result of this study is aligned with the research conducted by Nimawati *et al.*, (2010) which concluded that nutrition education could increase the nutrition knowledge score in mothers by 17,05% (Nikmawati *et al.*, 2009). Similar research conducted by Hestuningtyas (2013) showed the same result, where there was an increase in maternal nutrition knowledge by 18.2% after given education (Hestuningtyas, 2009).

Knowledge can be obtained through information or experiencing reality (Facts) by seeing and listening by our own or through communication tools (Supriasa, 2012). Thus, the more often a person is exposed to information, the more knowledge he has. By providing education about homemade CF, it is easy for mothers to understand, know and be able to practice it independently, and this will result to an increase of knowledge about homemade CF.

Conclusion

The conclusion of this study is that there is a difference in the knowledge of mothers before and after given education about homemade CF. The education should be carried out consistently by health workers in order to increase the knowledge and independence of mothers in providing homemade CF. It is also suggested to include other variables besides knowledge, such as attitudes and actions, and to involve larger samples for further research on homemade CF provision in mothers of under-twos.

References

- DINKES Aceh. 2007. *Nutrition program monitoring and evaluation study*. Banda Aceh
- Hestuningtyas. 2009. *Effect of nutrition counseling on knowledge, attitudes, and practices of mothers in providing food and nutrition for children with stunting in Semarang*. Diponegoro University. Semarang
- KEMENKES. 2010. *General guidelines for complementary feeding (Local complementary feeding)*. Direktorat Jendral Bina Kesehatan Masyarakat. Jakarta
- Mubarak. 2007. *Health promotion: An observation of teaching and learning process in health education*. Graha Ilmu. Yogyakarta
- Notoadmodjo. 2012. *Health research methodology*. Rineka Cipta. Jakarta
- Nikmawati *et al.*, 2009. Nutrition education interventions for mothers of under-fives and cadres of integrated healthcare center to improve knowledge, attitudes and skills, and nutritional status of under-fives. *Jurnal Teknologi Kejuruan*.
- Sujarweni. 2015. *Statistics for health*. 1st ed. Gava Media. Jakarta
- Sulistyaningsih. 2011. *Nutrition: For mother and child health*. Graha Ilmu. Yogyakarta
- Supariasa. 2012. *Nutrition education and counselling*. EGC. Jakarta