FEEDING PRACTICE EDUCATION FOR MOTHERS AS AN EFFORT TO PREVENT STUNTING

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ABSTRAK : EDUKASI FEEDING PRACTICE PADA IBU SEBAGAI UPAYA PENCEGAHAN STUNTING

Latar Belakang: Stunting pada anak dapat berkembang selama dua tahun pertama kehidupan dan sebagian besar disebabkan kurangnya asupan gizi. Stunting mempengaruhi sekitar seperempat dari anak di bawah lima tahun di seluruh dunia . Unicef menyebutkan bahwa terdapat berbagai hambatan yang menyebabkan tingginya angka balita stunting usia 6-23 bulan di Indonesia, salah satu hambatan utamanya adalah pengetahuan yang tidak memadai dan praktik-praktik gizi yang tidak tepat. Peranan ibu sebagai pengasuh utama anaknya sangat diperlukan mulai dari pembelian hingga penyajian makanan. Jika pendidikan dan pengetahuan ibu rendah akibatnya ia tidak mampu untuk memilih hingga menyajikan makanan untuk anak dalam rangka memenuhi syarat gizi seimbang. Informasi dalam pendidikan kesehatan (edukasi) dapat mengubah pola pikir menjadi lebih baik sehingga terjadi perubahan sikap dalam pemberian makan.

Tujuan: Menganalisis pengaruh edukasi *feeding practice* pada ibu dalam pemberian makanan pada anak

Metode: Penelitian ini menggunakan metode quasy experiment. Desain penelitian yang digunakan yaitu one-group pretest-post test design. Populasi penelitian adalah ibu yang mempunyai anak usia 6 -24 bulan di wilayah kerja puskesmas Kotabumi II Lampung jumlah total populasi. Analisis data dengan univariat dan bivariat (uji T)

Hasil: Terdapat peningkatan pada rerata skor pemberian dari 6,91 menjadi 13,36. ada perbedaan nilai praktik pemberian makan bayi dan anak sebelum dan setelah diberikan adukasi ($p<0.05$).

Kesimpulan: Edukasi *feeding practice* dapat meningkatkan pemberian makan yang baik dalam upaya mencegah stunting.

Saran: Meningkatkan pemberian edukasi gizi sehingga dapat meningkatkan pengetahuan dan sikap dalam pemenuhan nutrisi dan dapat menjadi salah satu intervensi alternatif untuk meningkatkan perilaku kesehatan dalam mencegah stunting.

Kata kunci edukasi, feeding practice, stunting

ABSTRACT

Background: Stunting in children can develop during the first two years of life and is mostly caused by lack of nutritional intake and infectious diseases. Stunting affects around a quarter of children under five years old worldwide. Unicef Indonesia's study shows that there are various obstacles that cause the high number of stunted toddlers aged 6-23 months in Indonesia, one of the main obstacles is inadequate knowledge and inappropriate nutritional practices. The mother's role as the main caregiver of her child is very necessary, from purchasing to serving food. If the mother's education and knowledge is low, the result is that she is unable to choose and serve food to the child in order to meet the requirements for balanced nutrition. Information in health education (education) can change thought patterns for the better, resulting in changes in attitudes

Objective: Analyzing the influence of feeding practice education on mothers in providing food to children.

Method: This study This type of research is a quasi experiment. The research design used is one-group pretest-post test design. The research population was mothers who had children aged 6 -24 months in the working area of the Kotabumi II Lampung community health center, the total population. Data analysis using univariate and bivariate (T test).

Results: There was an increase in the mean giving score from 6.91 to 13.36. There was a difference in the value of infant and child feeding practices before and after being given adulation ($p<0.05$)

Conclusion: The results showed that Feeding practice education can improve good feeding in an effort to prevent stunting.

Suggestion: Increasing the provision of nutrition education so that it can increase knowledge and attitudes in fulfilling nutrition and can be an alternative intervention to improve health behavior in preventing stunting

Keywords: aducation, feeding practice, stunting

INTRODUCTION

Nutrition plays an important role in children's growth and development. In Indonesia, the spectrum of malnutrition is very wide and occurs at all stages of life, including in the form of Protein Energy Deficiency (PEM), micronutrient deficiencies, low birth weight, and growth disorders as seen from height indicators according to age (Atmaruta, 2005) . Based on nutritional intake, growth disorders indicate the accumulative effects of long-term deficiency or inadequate intake of energy, macronutrients or micronutrients or the result of chronic infections (Umeta et al, 2003). Stunting in school children is a manifestation of stunting in toddlers who experience failure in the golden period of growth, lack of nutrients for a long time and infectious diseases (Arisman, 2004).

Stunting affects approximately a quarter of children under five years worldwide (Black et al., 2013; UNICEF/WHO/World Bank Group, 2015). Child stunting can develop during the first two years of life and is mostly caused by lack of nutritional intake and infectious diseases (Black et al., 2013). According to Gibney et al. (2010), stunting is a condition where the body is so short that it exceeds a deficit of 2 SD (Standard Deviation) below the median length or height of the population as an international reference. Stunting is caused by various causal factors, whether direct causes (unbalanced diet and infectious diseases) or not. Previous research has found that stunting is associated with detrimental cognitive development in children and adults, such as a relatively short school period, decreased work ability, and a lack of height in adults who do not reach their growth potential (Crookstone et al, 2010).

The World Health Organization (WHO) has created a program for the 2015 global target of reducing 40% of the world's children experiencing stunting (WHO, 2014). Efforts to improve the nutritional status of the community, including reducing the prevalence of stunting under five, are one of the national development priorities listed in the main targets of the 2015 - 2019 Medium Term Development Plan. The target for reducing the prevalence of stunting (short and very short) in toddlers (under 2 years) is to 28% (RPJMN, 2015 – 2019). According to the Decree of the Minister of Health Number 1995/MENKES/SK/XII/2010 concerning Anthropometric Standards for Assessment of Children's Nutritional Status, the definition of short and very short is nutritional status based on the body length index for age (PB/U) or height for age (TB /U) which is the equivalent of the terms stunted (short) and severely stunted (very short). Short toddlers (stunting) can be identified if a toddler's length or height has been measured, then compared with standards, and the results are below normal (Ministry of Health, 2016).

The Indonesian government is currently implementing various things to improve nutritional problems, one of which is stunting. One of the targets in the Sustainable Development Goals (SDGs) as the second sustainable development goal is to overcome hunger and all forms of malnutrition by 2030 and achieve food security. In order to realize the SDGs targets, the government has made stunting one of its priority programs [safrina, 2022). Based on Unicef Indonesia's study, there are various obstacles that cause the high number of stunted toddlers aged 6-23 months in Indonesia, one of the main obstacles is lack of knowledge. inadequate and inappropriate nutritional practices (UNICEF, 2012). The mother's role as the main caregiver of her child is very necessary, from purchasing to serving food. If the mother's education and knowledge are low, the result is that she is unable to choose and serve food to the child in order to meet the requirements for balanced nutrition (Soekirman, 2000). Based on the considerations above, researchers want to know the influence of feeding practice education on the behavior of providing food intake to children.

RESEARCH METHODS

This type of research is a quasi experiment. The research design used is one-group pretest-post test design. The one-group pretest-posttest design aims to measure the effect of treatment (intervention) in the experimental group without a control group comparison. The research population was mothers who had children aged 6 -24 months in the working area of the Kotabumi II Lampung health center, the total population. The respondents in this study were 40 mothers who had children aged 6 - 24 months. The sample in this study were parents/caregivers who had toddlers aged 6-24 months. The inclusion criteria in the study were parents/caregivers with toddlers aged 6-24 months who were present during toddler posyandu activities, toddlers aged 6-24 months were not sick or had certain diseases and were willing to be respondents. The exclusion criteria were parents who were not present when the research took place. The sampling technique used was simple random sampling to determine one posyandu that would receive intervention while still referring to the research sample criteria.

The data collection procedure begins with obtaining an ethical letter and then requesting a permission letter to collect data at the Kotabumi II Community Health Center. Then the researchers

collected data in the working area of the Kotabumi II Community Health Center by selecting one of the posyandu which was taken at random. The researcher previously provided an explanation to the respondent and then asked the respondent to sign the respondent's consent form, which means that the respondent is willing to be included in this research activity. The data collection method is as follows: parents who come with toddlers to the Posyandu are first given an explanation about this research, then given informed consent as a willingness to become respondents in this research. Parents are given an FFQ to complete for one week. One week later the researchers provided education, asked questions and demonstrated food samples to parents, then after providing the education they were given another FFQ to fill in for 1 week.

Analysis includes univariate and bivariate analysis. Bivariate analysis in the form of a frequency distribution which includes feeding before and after intervention. This bivariate analysis was carried out to prove or test the hypothesis, namely the effect of education on feeding using the FFQ method for mothers in the Kotabumi II Community Health Center working area using the t test, namely by comparing feeding before and after the intervention carried out for 1 week after being given education about feeding. feeding children according to the child's age, namely 6 – 24 months, the variables of early feeding and final feeding were analyzed using the Kolmogorof-Smirnov method. before and after treatment (numerical) with the Dependent T-test statistical test. To determine if there is a significant difference, the results of the analysis of each variable are obtained if $p \leq 0.05$

RESEARCH RESULTS

Kotabumi II Health Center is one of the main health centers in North Lampung, specifically in South Kotabumi District. The respondents involved in this research live in the working area of the Kotabumi II Health Center. The following is a table of respondent characteristics

Table 1
Respondent Characteristics

Characteristics	∑	
	frequency (n)	Persentase (%)
Mother age		
20 -25	15	38
26 - 30	14	35
31 - 35	8	20
≥ 36	3	7
Education		
SD	4	10
SMP	12	30
SMA	23	57
Perguruan Tinggi	1	4
Wotrk		
Midwife	19	48
Farmer	17	43
ASN	1	2
Enterpeneur	3	7
Income		
< 1 million	2	5
1-2 million	17	43
2-3 million	18	45
>3 million	3	7
Acces to public health		
Difficult	2	40
Easy	38	60
Age of kid		
6 – 12 month	10	25
13 - 18 month	14	35

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19 - 24 month	16	40
Kind of card public health		
General	9	22
BPJS	31	78

Based on the table above, it can be seen that the majority of mothers' ages range between 20 - 25 years, which is around 38%. Most of the mothers' education was high school (57%) and a small number had tertiary education (4%). Respondents' characteristics based on their mother's occupation were mostly housewives (48%) and a small number worked as ASN (2%). The majority of respondents' family income is 2 - 3 million per month (57%). The majority of respondents have access to health services from home (60%). The ages of the children involved in this study were mostly 19-24 months (49%). The type of card used to obtain health services mostly uses BPJS (78%)

Feeding before and after health education measures.

Feeding was carried out by mothers who were respondents in this study before and after being given health education which was recorded using the FFQ method.

Table 2
Feeding before and after health education for mothers was recorded using the FFQ

Variable	Mean	SD	Min	Max
Feeding practice				
Before education	6,91	1,690	3	12
After education	13,36	1,773	8	15

Table 3
The influence of education on feeding using the FFQ method for mothers in the Kotabumi II Community Health Center working area

Variable	Before education		After education		P
	Mean	SD	Mean	SD	Value
Feeding prsctice	6,91	1,690	13,36	1,773	0,000

Based on table 2, it shows that the average feeding score using the FFQ table before and after the feeding practice education has increased. There was an increase in the mean giving score from 6.91 to 13.36.

The table 3 shows that there has been an increase in the value of feeding practices for children aged 6 - 24 months by mothers before and after being given education about preparing and feeding children. This shows that there is a difference in the value of feeding practices for babies and children before and after being given education ($p<0.05$

DISCUSSION

When giving complementary foods to breast milk, there are several factors that mothers must pay attention to, namely the age of the baby/child, frequency of giving, number of portions, shape/thickness/texture, variety, active response and cleanliness. As we get older, the nutritional needs of babies and children increase, so the amount of food they eat must increase according to their age. Almost half of mothers of babies and children provide food amounts that are not appropriate for their age and providing counseling has not been able to improve IYCF practices, especially the number of portions. If the number of food portions is less than required, it can have an impact on the growth of babies and children, namely weight loss. This problem was raised by Patil et al. (2016) that the frequency, quantity and consistency/form of food are still problematic so it is important to provide education to mothers who have babies over 6 months about knowledge of feeding babies and children. (Patil, N, 2016)

Efforts to increase people's knowledge, awareness, willingness and ability to behave healthily can be done directly or indirectly through media channels and health promotion techniques. The study found reduced stunting among children older than one year who were fed slowly, had been dewormed, and consumed thicker (more energy-dense) foods (Mugode, 2018)

The time of administration and the age at

which MP-ASI was first given were found to be the most inappropriate, this was due to a lack of knowledge. Mother's knowledge about nutrition and MPASI is one of the factors in providing correct MPASI to babies (9). Lack of knowledge about nutrition and health of parents, especially mothers, is one of the causes of malnutrition in toddlers. The results of Kurniawati's (2012) research stated that there was a significant relationship between the mother's level of knowledge about nutrition and The frequency of feeding for the majority of babies and children was age appropriate, namely 76.0 percent in the pre condition before counseling was given and increased to 89.3 percent in post (after counseling was given at visit 2). Before being given counseling, almost half of babies and children aged 6-24 months (49.3%) did not receive portions of food appropriate to their age and there was a decrease at post (visit 2) to 40.0 percent.nutritional status, which was obtained statistically using the Chi-Square test with a p value of 0.001

Stating that complementary foods to breastfeed (MP-ASI) are given from the age of 6 months. The purpose of giving complementary foods is to provide adequate nutrition for the needs of babies or toddlers for optimal physical and psychomotor growth, in addition to educating babies to have good eatinghabits. (Sofiana, 2023)

This goal can be achieved well if the provision of complementary foods according to age, quality and quantity of food is good as well as various types of food (Rukmawati, 2020)

The results of this research are in line with research by Yunitasari, et al which states that there is a significant value between education, brainstorming and demonstration in increasing mothers' knowledge, attitudes and behavior in preventing stunting in the intervention group, while in the control group there is no significant value.

Psychosocial stimulation interventions, child feeding assistance and child health care affect the increase in height, weight, head circumference, gross motor, fine motor, frequency of Upper Respiratory Tract Infection in stunting children. (Wirjatmadi, 2019)

Stunting or chronic malnutrition is another form of growth failure. Stunting is defined as a height index for age (TB/U) of less than minus two standard deviations (- 2 SD) or below the existing standard average and severe stunting is defined as less than - 3 SD (ACC/SCN, 2000). Stunting in children is the long-term result of chronic consumption of low-quality diets combined with morbidity, infectious diseases and environmental problems (Semba et al, 2008). Decree of the Minister of Health (2010) states that short and very short are nutritional statuses based on the Body Length according to Age (PB/U) index or Body Height according to Age (TB/U) which are equivalent to the terms stunted (short) and severely stunted (very short).). The effect of nutritional deficiencies on height can be seen over a relatively long period of time (Gibson, 2005) and (Kurniawati 2020)

Information in health education can change thought patterns for the better, resulting in changes in attitudes. This is in accordance with the theory put forward by Azwar that personal experience, culture, other people, mass media, religious institutions or institutions as well as individual emotional factors are factors that can influence attitude formation (Azwar, 2013)

Rusmiati and Hastono stated that attitude formation begins with knowledge that is perceived as positive or negative, then internalized within a person. Apart from that, this increase in positive or good attitudes is due to information when providing health education which suggests that fulfilling nutrition to prevent stunting is important. Nutrition education plays a very important role in improving the health status of individuals, groups and communities, especially in reducing stunting in toddlers. The apparent difference in linear growth and the incidence of severe stunting between participants who received milk-containing as opposed to soy-containing LNS could be a spurious finding or related to the lack of milk or other differences in the composition of the soy–LNS (Mangani 2015)

Likewise with the form of food, in the pre-counseling condition, 41.3 percent of the forms of food given were not appropriate for the age of the baby and child, but in the post-counseling (visit 2) it became better, namely a decrease to 14.6 percent. The form of food for babies aged 6-9 months is thick or mashed porridge, but the porridge given is still runny. Mothers still think that thin porridge is easier for babies to digest. In the group of babies aged 9-12 months, they should be given denser and coarser food such as nasi tim, but many mothers still give them porridge. Likewise, in the group of children aged 12-24 months the food should be like family or adult food, but there are still those who give porridge or soft rice. Most babies and children have been given snacks and the way the mother provides food has taken into account the active responsiveness of the child, that is, the mother does not force the child to eat, the mother is patient and pays attention to signs that the child wants to eat. a significant correlation between the feeding pattern and stunting on toddlers (Marantika,2021)

The variety/variety of food given by mothers is

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still very lacking, only 1 in 5 mothers gave 4 star food at every meal before being given counseling and this changed to 1 in 4 mothers giving children food with a 4 star menu, namely containing basic food ingredients, foods animal sources of iron, nuts and their processed products as well as fruit and vegetables as a source of vitamin A. Other research shows similarities in the pattern of giving MP ASI to 6-23 month olds in Aceh that the quality of giving MP ASI is still low. Of the 4 indicators used, only food frequency and age suitability are good, while the diversity and amount of food given is still very low. This is also in line with the results of Ahmad's research, 2018 (farisni, 2020)

Children with stunting nutritional status problems are influenced by various factors, determinants that affect stunting, including maternal factors: maternal nutritional status during pregnancy, maternal education level, breastfeeding factors, complementary breastfeeding factors (MP-ASI), infection factors, family economic factors and family environmental factors (Susanti,2022)

The inability to infer a causal relation of the aforementioned factors for the nutritional status of children remains one of the limitations of the present cross-sectional study, and the small number of wasted children in this sample did not allow further in-depth analysis specific to wasting. Further detailed studies are recommended to evaluate which nutrition interventions best address the challenges of undernutrition among infants and young children in food-insecure settings.(Tafese, Z 2020)

Consumption of vegetables and fruit before and after counseling apparently decreased, the reason the mother did not give vegetables and fruit was because her child had diarrhea. These results are not in accordance with research by Saha (2015) which states that the effect of counseling can increase vegetable and fruit consumption and that counseling is carried out 2 to 4 times. Personal counseling is a behavior change communication tool that is useful in improving infant and child feeding practices. Babies born with a mom who stunted could be adult female who has stunted also , and will form the same cycle as before .Hence the importance of maintaining how nutrition in the program , micro and macro when pregnant mother and child after birth (D kumala, 2022)

However, the research results of Arini et al. (2017) stated that providing education to mothers can increase the behavior of giving MP-ASI. 22 Studies in Uganda show that nutrition education has a significant impact on mothers' knowledge regarding children's food preparation, attitudes and feeding practices (Nabugoomu, 2015). Based on these results, it shows that counseling carried out by cadres can improve the practice of feeding babies and children to mothers and must be in line with increasing knowledge, attitudes and motivation of mothers through a continuous counseling process by cadres as in the research results of Azzahra et al. (2015) which states that growth and feeding counseling given to mothers increases knowledge and attitudes about providing MP-ASI for children aged 6-24 months (azzahra, 2015). Research in Cameeron shows that IYCF counseling provided by cadres who have been trained as counselors is effective in increasing exclusive breastfeeding and reducing the risk of stunting in children 6-8 months Reins, 2015)

Along with undernutrition, which affects intrauterine growth retardation, stunting, wasting, vitamin A and zinc deficiencies, improper breastfeeding, maternal overnutrition, and obesity have also increased maternal morbidity and infant mortality (Nugrohowati,2023)

The present study highlighted that inappropriate traditional feeding practices, including food restrictions during pregnancy, food restrictions for children, and prelacteal feeding, were associated with stunting. In addition, there are multiple determinants of stunting. Children aged 36 to 59 months, children with LBW, children with a short birth interval of < 24 months, children living in low-income households, children for whom breastfeeding initiation was delayed, children with nonexclusive breastfeeding, children with a duration of breastfeeding < 23 months, children with an incomplete basic vaccination status, and children living in rural areas had a higher prevalence of stunting (Astuti, 2024)

Efforts to reduce the prevalence of malnutrition include correct IYCF, starting from IMD, continuing with exclusive breastfeeding, and providing complementary foods according to age, quantity and texture. Mother's knowledge influences early complementary feeding. The better a mother's knowledge, the less likely it will be to provide premature MPASI. This is because the mother will apply her knowledge in the form of a correct diet to her baby. Knowledge related to IYCF is also important to provide to prospective mothers. Future mothers' knowledge, attitudes and perceptions towards IYCF are an important priority related to attitudes in providing food for their future children. (Irmi, 2022)

The perceived barriers in the feeding practices of severely stunted children experienced by participants come from both inside and outside the mother's self. The participants make an effort to

overcome obstacles in the provision of nutrition-based severe stunting by overcoming problems independently and asking for help from others. (ID Kurnia, 2021)

Our study confirmed that dietary diversity and continued breast feeding mediate associations between socioeconomic status and child stunting; however, these findings were only significant for pathways originating from maternal employment and household wealth. The results of this study suggested a positive and direct association between Cambodian children's dietary diversity and HAZ, which has also been supported by other studies conducted in Cambodia (harvey,2022)

Education is a dynamic process of changing behavior, where the change is not just a process of transferring material or theory from one person to another, but the change occurs because of awareness within the individual or community group itself (Mubarak and Chayatin, 2009, p. 358).

Factors causing deficiency nutrition, namely low income, as a result, the family consumes cheaper food and less varied menu. Most of the toddlers who have growth disorders have a high economic status low, and according to research from Kusuma and

Nuryanto 2013 shows that children with family economic status low risk 4,13 times experiencing stunting. (Dani, 2022)

Nutrition education can increase knowledge and attitudes towards fulfilling nutrition so that nutritional nutrition can be an alternative intervention to improve health behavior in preventing stunting. Future research needs to examine further the behavior of mothers in fulfilling nutrition for toddlers after receiving nutrition education.

CONCLUSION

Most of the mothers' ages ranged from 20 - 25 years (38%), the mother's education was around 57%, high school, around 57%, university, 4%. Mother's occupation, namely housewife, is around 48%. Family income is 2 - 3 million per month. Most of the distance to health services is easy, around 60%. Most of the children are aged 19-24 months, around 49%. Most types of cards are used to obtain health services with BPJS, namely 78%. There was an increase in the value of feeding practices for children aged 6 – 24 months by mothers before and after being given education about preparing and feeding children. This shows that there is a difference in the value of infant and child feeding practices before and after being given adulation ($p<0.05$).

SUGGESTIONS

Increasing the provision of nutrition education so that it can increase knowledge and attitudes in fulfilling nutrition and can be an alternative intervention to improve health behavior in preventing stunting

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