

Risks of Stunting and Interventions to prevent Stunting

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ABSTRACT

Stunting is defined as a ratio of a child's height to age and gender that is below the standard deviation. Children are said to be short if their height is below -2 SD of the WHO standard deviation. Stunting occurs due to the impact of chronic malnutrition during the first 1000 days of life. According to Bloem 2013 the cause of stunting is malnutrition which involves several things, namely inadequate nutritional intake, difficulty in accessing strong food, lack of knowledge, and social, economic and political aspects as basic aspects. Stunting can cause cognitive disorders in the long term which will affect their economic potential (Prendergast, 2014). The risk of stunting can be caused by low birth weight (LBW), exclusive breastfeeding for less than 6 months, parents' education level, parents' income, and parents' height. To overcome the problem of stunting, the Government through Presidential Decree Number 42 of 2013 concerning the National Movement for the Acceleration of Nutrition with a focus on the age group in the first 1000 days of life (Ministry of Health of the Republic of Indonesia, 2013), including: Pregnant women receive a minimum of 90 Blood Supplement Tablets during pregnancy, Providing Supplementary Food to pregnant women, Fulfillment of nutrition, Delivery with an expert doctor or midwife, Providing Early Breastfeeding Initiation, Providing exclusive breast milk (ASI) to babies up to 6 months of age, Providing Complementary Foods for Breast Milk (MP-ASI) for babies over 6 months to 2 years, Providing complete basic immunization and vitamin A, Monitoring the growth of toddlers at the nearest integrated health care center, Implementing Clean and Healthy Living Behavior. The main target is aimed at expectant mothers, pregnant women and mothers with children under five.

Keywords: Children, malnutrition, stunting

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INTRODUCTION

Stunting or shortness is a form of malnutrition which is characterized by Z-score value for height for age (TB/U) of less than - 2 Standard Deviation (SD) based on the World Health Organization (WHO, 2010). Stunting in school children is a manifestation of stunting in toddlers who experience failure to catch up growth, nutritional deficiencies over a long period of time, and the presence of infectious diseases (Saniarto, 2014).

Results of the 2010 Basic Health Research, the prevalence of stunting in Indonesia is still high, namely 36.5%. The five provinces with the highest prevalence of stunting in Indonesia are East Nusa Tenggara (58.4%), West Papua (49.2%), West Nusa Tenggara (48.2%), East Java

(42.3%), and West Sulawesi (41.6%). In Aceh Province, a fairly high prevalence was also found, namely 39%. Meanwhile, in the 2013 Basic health research results, the national prevalence of stunting among school-age children was 30.7% (12.3% were very stunted and 18.4% were stunted). There was a decrease in prevalence compared to 2010, amounting to 36.5%. Meanwhile, Zahraini (2011) reported that more than a third (36.1%) of school-age children in Indonesia are classified as short, which is an indicator of chronic malnutrition and the occurrence of recurrent infectious diseases.

The prevalence of stunting at school age in East Java according to Basic health research in 2010 was 43.2% (very stunting at 20.6% and stunting at 22.6%). Meanwhile, according to the East Java profile (2013) in Kediri district, the prevalence of stunting reached 18.7% in the very short category, and 19.0% was stunted.

According to Bloem (2013), the cause of stunting is malnutrition which involves various aspects, namely inadequate nutritional intake, difficulty in accessing healthy food, lack of attention and health facilities for mothers and children, lack of knowledge, to social, economic and political aspects as aspects. -fundamental aspects. Apart from that, growth failure is caused by inadequate intake of one or more nutrients including energy, protein or macronutrients such as iron (Fe), zinc (Zn), phosphorus (P), vitamin D, vitamin A, vitamin C. Macronutrient deficiencies (E, P) and micronutrients (Fe, Zn), especially during the growth period, will disrupt a child's growth process which results in stunting (Mikhail et al. 2013).

Factors that influence protein and Fe intake can be seen from daily food consumption and eating habits (Arisman, 2007). The problem of inadequate nutritional intake is common in remote areas, which is caused by poor understanding of nutritional knowledge, so many types of food in these areas are not used for consumption by children (Suhardjo, 2003).

Protein is a material for forming new tissues which always occurs in the body, during the growth period (Winarno, 2002). Protein has a unique function and cannot be replaced by other nutrients, namely building and maintaining cells and body tissues (ALmatsier, 2009). The research results of Hidayati et al (2010) show that children with insufficient protein intake have a 3.46 times greater risk of becoming stunted compared to children with sufficient protein intake. Insufficient iron intake during childhood causes stunted growth in children so that if it continues for a long time it can cause stunting. Based on research in Kenya (Lawless, S.W., Latham, M.C et al, 1994) shows that the TB/U Z score increases in children who are given iron supplements. Apart from that, giving iron supplements to babies aged six months can increase growth (LindT, Lonnerdal B et al, 2014).

To resolve the problem of malnutrition, especially in school-aged children, it is necessary to improve maternal nutrition. Maternal nutrition education is an educational approach to produce individual or community behavior that is needed to improve food and nutritional status (Claire, 2010: Shweta, 2011). Educational activities are very effective in changing children's knowledge and attitudes towards food, but less so in changing eating practices (Februhartanty, 2005).

Apart from maternal nutrition education, the provision of supplementary food for school children (PMT-AS) is carried out as an effort to improve nutrition and health, the target of which is all elementary school students based on the screening that has been carried out (Dinkes, 2012). The PMT-AS food that will be given must contain less more than 300 calories (Ire, 2016).

METHOD

The implementation of community service/counseling activities is carried out by distributing questionnaires, where mothers are asked questions regarding Child Stunting. Measurements

were carried out at the beginning and end of the counseling on the same day by looking at the effectiveness of the counseling that had been carried out on 12 housewives as a sample.

RESULT

Characteristics

Based on the characteristics of respondents including age, occupation and number of children, the following can be obtained:

Table 1. Respondent Characteristics

| No. | Characteristics | Present |
|-----|---------------------------|---------|
| 1. | Age <30 years | 33,3% |
| | >30 years | 66,6% |
| 2. | Work | 50% |
| | Housewife | 50% |
| 3. | Number of children 1-2 | 75% |
| | 3 | 25% |

From the table above, it can be concluded that the majority are >30 years old, some work and some are housewives, and the majority have 1-2 children.

Knowledge

Understanding of child stunting, the most common causes of stunting, the influence of nutrition on children, and how to prevent stunting. The results of the questionnaire showed that before the counseling was carried out there were 6 participants (50%) with good knowledge and after the activity there was an increase to 10 participants (83%) with good knowledge. This shows that the participants are very enthusiastic about increasing their knowledge about Stunting.

Table 2. Before giving counseling

| No. | Knowledge | Amount | Present |
|-----|------------------------|--------|---------|
| 1. | Good (Score 80 to 100) | 6 | 50% |
| 2. | Fair (Score 50 to 70) | 6 | 50% |
| 3. | Less (Value < 50) | 0 | 0% |
| 4. | Amount | 12 | 100% |

Table 3. After being given counseling

| No. | Knowledge | Amount | Present |
|-----|------------------------|--------|---------|
| 1. | Good (Score 80 to 100) | 10 | 83% |
| 2. | Fair (Score 50 to 70) | 2 | 17% |
| 3. | Less (Value < 50) | 0 | 0% |

| | | | |
|----|--------|----|------|
| 4. | Amount | 12 | 100% |
|----|--------|----|------|

DISCUSSION

The results obtained in table 1 show that the majority of respondents who attended were >30 years old, part of their work and part of being housewives, and the majority had 1-2 children. Table 2 shows that before the counseling was given there were 6 participants (50%) with good knowledge and after the activity there was an increase to 10 participants (83%) with good knowledge. This shows that the participants are very enthusiastic about increasing their knowledge about Stunting.

The research results of Ardiyah et al (2015) stated that the mother's level of knowledge regarding nutrition is one of the factors that can influence the occurrence of stunting in children. After being given health information, mothers have insight into stunting, its causes and prevention.

The effect of providing education using the discussion method can provide a better increase in knowledge about stunting compared to education using lectures alone. Another method that can be used is the brainstorming method. This principle is the same as the group method, but in this method the group leader provokes questions with one question and each participant gives their own answer or response.

CONCLUSION

Health education about stunting prevention was proven to increase the knowledge of counseling participants, it was proven that there was an increase in knowledge scores from before the counseling as many as 6 participants (50%) with good knowledge and after the activity there was an increase to 10 participants (83%) with good knowledge.

By increasing this score, it is hoped that we will be able to contribute to helping the government reduce the risk of stunting, by paying attention to the importance of balanced nutrition in the first 1000 days of a child's life and actively attending outreach about stunting prevention in order to increase public knowledge about stunting. There needs to be collaboration between health workers and the community in increasing knowledge of the importance of health knowledge.

REFERENCE

- Efendi, S. Sriyanah. N., Cahyani, A. S., Hikma, S., & Kiswati, K (2021). Pentingnya Pemberian Asi Eksklusif Untuk Mencegah Stunting Pada Anak. *Idea Pengabdian Masyarakat*, 1(02), 107-111.
- Ekayanthi, N. W. D., & Suryani, P. (2019). Edukasi gizi pada ibu hamil mencegah stunting pada kelas ibu hamil. *Jurnal Kesehatan*, 10(3), 312-319.
- Faramita, R. (2015). Hubungan Faktor Sosial Ekonomi Keluarga Dengan Kejadian Stunting anak Usia 24-59 Bulan Diwilayah Kerja Puskesmas Barombong Kota Makasar Tahun 2014. *The PublicHealth Science Journal*.
- Langi, G. D. L., Djendra, I. M., Purba, R. B., & Todangene, R. S. P. (2019). Pengetahuan Ibu dan Pemberian ASI Eksklusif dengan Kejadian stunting pada Balita 2-5 Tahun. *GIZIDO*, 11(1), 17-22.
- Murti, L. M., Budiani, N. N., & Darmapatni, M. W. G. (2020). Hubungan Pengetahuan Ibu Tentang Gizi Balita dengan Kejadian Stunting Anak Umur 36-59 Bulan di Desa Singakerta Kabupaten Gianyar. *Jurnal Ilmu Kebidanan*, 8(2), 62-69.

- Muthia, G. Edison, E., & Yantri, E. (2020). Evaluasi Pelaksanaan Program Pencegahan Stunting Ditinjau dari Intervensi Gizi Spesifik Gerakan 1000 HPK Di Puskesmas Pegang Baru Kabupaten Pasaman. *Jurnal Kesehatan Andalas*, 8(4).
- Nasution, D., N. S., & Huriyati, E (2014). Berat badan lahir (BBLR) dengan kejadian stunting pada anak usia 6-24 bulan. *Jurnal gizi klinik Indonesia*, 11(1), 31-37.
- Nirmala, N. O. (2020). Stunting Pada Anak: Penyebab dan Faktor Risiko Stunting di Indonesia. *Qawwam*, 14(1), 19-28.