IMPROVING THE COMMUNITY'S ABILITY TO ASSESS CHILDREN'S GROWTH AND FULFILLMENT OF FAMILY NUTRITION

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ABSTRACT

Monitoring the growth and development of children in the first 1,000 days of life is very important given the rapid growth and development at this age. This very rapid brain development at the age of under 2 years (a critical period of development) is the right time to make recovery if there are growth disorders and nutritional deficiencies. Increasing the community's ability to assess children's growth and development and fulfillment of family nutrition is very important as an effort to optimize the process of child growth and development as the nation's next generation. The purpose of this program is to improve the ability of the community (independently) in assessing children's growth and development and fulfilling family nutrition. The methods used in this program are focus group discussions as the basis for making modules, health promotion with interactive lectures and discussion techniques, and simulations of how to assess toddler growth and development using maternal and child health books (KIA) and family nutrition fulfillment. This program was carried out for 1 day and took place in Kaliasin Village, Tanjung Bintang District, South Lampung Regency. The participants were 30 people who were members of the community in Kaliasin Village, Tanjung Bintang District, South Lampung Regency. The results of the evaluation found that there was an increase in participants' understanding as much as 90% became a good understanding, 10% of participants had a fairly good understanding, and none of the participants had a poor understanding of how to assess the growth and development of toddlers and the fulfillment of family nutrition. The average pretest result was 50.5 and an increase in the post-test result was 83.5. Based on the analysis using the Wilcoxon test, it was found that there was a statistically significant mean difference between the pretest and posttest scores of participants on how to assess toddler growth and family nutrition (p=0.000). Increasing the community's ability to assess children's growth and development and fulfillment of family nutrition with this technique of increasing knowledge and skills has proven to be effective.

Keywords: nutrition, growth, and development, enabling

1. INTRODUCTION

The future of a nation depends on the success of children in achieving optimal growth and development. The first years of life, especially the period from the fetus in the womb until the child is 2 years old, is a very important period in the growth and development of children. This period is a golden opportunity as well as a time that is vulnerable to negative influences. Good and sufficient nutrition, good health status, proper parenting, and proper stimulation during this period will help children to grow up healthy and able to reach their optimal
abilities so that they can contribute better to society.¹

The determinants of the quality of children's growth and development are the genetic potential—here constitutional (intrinsic) and the role of the environment (extrinsic). Growth and development disorders occur when there are genetic factors and or environmental factors that are not able to meet the basic needs of children's growth and development. The role of the environment is very important to meet the basic needs of children's growth and development, namely bio-psychosocial needs consisting of biomedical/‘nurturing’ needs (nutrition, immunization, hygiene, treatment, clothing, shelter, environmental sanitation, and others) and psychosocial/loving needs and sharpening (affection, appreciation, communication, speech stimulation, movement, social, moral, intelligence, etc.) from conception to late adolescence.²

Impaired growth and development are a serious problem for both developed and developing countries in the world. Growth can be seen from weight, height, and head circumference, while development can be seen from motor, social and emotional abilities, language skills, and cognitive abilities. Every child will go through a process of growth and development according to the stages of his age, but many factors influence it. Children are the next generation of the nation that deserves attention and every child has the right to achieve optimal cognitive, social, and emotional behavior development. Thus, children of good quality are needed to achieve a good future for the nation.³

Based on the World Health Organization (WHO) states that 5-25% of pre-school-age children in the world experience minor brain dysfunction, including disorders of fine motor development.⁴ The incidence of developmental disorders in children aged 3-17 years in the United States has increased from 2014 by 5.76% and in 2016 by 6.9%.⁵

The growth and development of children in Indonesia still need serious attention. The rate of growth and development delays is still quite high, which is around 5-10% experiencing general developmental delays. Two out of 1,000 babies have motor development disorders and 3 to 6 out of 1,000 babies also have hearing problems and one in 100 children have low intelligence and speech delays.⁶

The population of children in Indonesia shows about 33% of the total population, which is around 83 million, and every year the number of children population will increases. There are 0.4 million (16%) toddlers in Indonesia experiencing developmental disorders, both fine and gross motor development, hearing loss, low intelligence, and speech delays.¹

Based on the results of basic health research (Riskesdas) in 2018, the prevalence of stunted children is 30.8%. Every year there is an increase in the number of toddlers with short and very short stature so the percentage of toddlers with short stature in Indonesia is still high and is a health problem that must be solved.⁷

Monitoring children's growth and development include monitoring physical, psychological, and social aspects. Such monitoring must be carried out regularly and continuously. As early as possible monitoring can be done by parents. Monitoring children's growth and development can use the maternal and child health book (KIA).

Fulfillment of family nutrition, especially for infants and toddlers, is also an important thing to do so that it can prevent children from experiencing acute or chronic malnutrition as a form of growth disorder. The purpose of this activity is to increase the community's ability to assess children's growth and development and fulfill family nutrition.
2. METHOD

Community capacity-building activities in assessing child growth and development and fulfilling family nutrition are activities designed to train the community, in this case, the family, to be able to assess child growth and development using maternal and child health books (KIA) and be able to design appropriate food menus with the needs of every family member, especially infants and toddlers.

This program activity was carried out on Sunday, June 12, 2022. The target of this program is the community in Kaliasin Village, Tanjung Bintang District, South Lampung Regency, totaling 30 people consisting of mothers with infants/toddlers and health cadres. The selection process of the target is because the mother is the person who directly takes care of, educates, processes food, and feeds the child and is always with the child so that the mother's ability to assess the child's growth and development and prepare food according to the child is very necessary. While the selection of health cadres as targets is also because health cadres are supporting and reinforcing factors in the implementation of health programs in the community.

The partner in this program is Kaliasin Village, Tanjung Bintang District, South Lampung Regency which is fully involved in the program process. Partners will take part in several program activities, including as participants in the implementation of this program Partners are also a place to organize this preprogram the benefits that will be obtained by partners are increased knowledge, attitudes, and, the behavior of the community in assessing children's growth and development independently and meeting the nutritional needs of the family.

This program consists of a focus group discussion as the basis for making modules, health promotion with lectures and interactive discussion techniques, as well as a simulation of how to assess the growth and development of toddlers using maternal and child health books (KIA) and fulfillment of family nutrition.

Focus group discussions are conducted as the basis for making modules and materials for health promotion. Focus group discussions were conducted with the village officials, village health workers, and health cadres, to explore data and information related to the description of infant/toddler development, the process of feeding infants and children, parenting patterns, disorders, and problems related to growth and development and behavior; and eat and food ingredients according to local wisdom.

Health promotion with lectures and interactive discussion techniques through counseling activities on child growth and development, how to assess children's growth and development independently using KIA books, early detection of growth disorders, making food menus for infants/toddlers, and how to seek help when growth disorders are found is carried out as follows: (a) Measuring participants' prior knowledge by giving a questionnaire, (b) Counseling using the lecture method, showing pictures and asking questions, (c) Measuring participants' knowledge after counseling through post-test, post-test scores are expected increased.

The simulation of how to assess the growth and development of toddlers using a maternal and child health book (KIA) and fulfillment of family nutrition is carried out by a) Direct practice using the KIA book by participants accompanied by a committee team, and b) Fulfilling family nutrition by simulating how to prepare food menus for children or baby/toddler with video playback.

Evaluation will be carried out in each activity in this program. Activities that will be carried out include health promotion/counseling and simulations on how to assess children's growth and development. Evaluation at the stage of health promotion/
counseling in the form of pre and post-tests using a questionnaire.

Evaluation at the simulation stage is in the form of a post-test through hands-on training using the KIA book.

3. RESULT

The implementation of this program was carried out on Sunday, June 12, 2022, attended by 30 participants. Participants who are mothers who have babies and toddlers are 20 people (66.7%) and health cadres are 10 people (33.3%). Participants aged less than 20 years were 2 people (6.7%), aged 20-35 years were 25 people (83.3%), and those aged more than 35 years were 3 people (10%).

Table 1. The Characteristics of The Participants

| Characteristic                      | n   | %   |
|-------------------------------------|-----|-----|
| Group                               |     |     |
| a. Toddler’s Mother                 | 20  | 66.7|
| b. Health Cadres                    | 10  | 33.3|
| Age                                 |     |     |
| a. Less than 20 years old           | 2   | 6.7 |
| b. 20-35 years old                  | 25  | 83.3|
| c. More than 35 years old           | 3   | 10  |

This program began with remarks by the Head of the Kaliasin Village from 08.30 WIB until 09.00 WIB. Then continued with the delivery of material and discussions by the speaker of the committee team from 09.00 WIB until 11.00 WIB. Health promotion/ counseling is carried out by conveying material on child growth and development and family nutrition. The material is given by using an interactive lecture method to mothers who have babies/toddlers and health cadres and using the media for delivering material in the form of power points. The evaluation method in the extension used was interactive discussion and a questionnaire at the end of the event. The discussion started by allowing participants to ask questions and ask other participants to answer first and then the complete answer was given by the team. In addition, evaluation is also carried out by giving several questions to participants as a form of feedback or feedback on the material that has been submitted. The final evaluation was in written form using a post-test questionnaire at the end of the event.

Before the delivery of material on child growth and development and family nutrition, participants were given a written pretest regarding the material and a written posttest regarding the material that had been delivered. The results of the pretest questions were approximately 60% of the participants did not understand, 40% had enough to understand, and 0% already understood well about child growth and development and family nutrition. In the results of the post-test questions, it was found that there was an increase in participants' understanding, namely 90% of participants had a good understanding and the remaining 10% of participants had a sufficient understanding of child growth and development and family nutrition.

![Picture 1. Overview of Pre and Post-Test Values](image)

Based on the results of the discussion at the time of giving the material, it was found that almost all mothers of infants/toddlers did not know and could not assess children's growth and development using the KIA book. The KIA book that has been owned so far has not been used optimally, it is only brought when Integrated Services Post activities, rarely read let alone applied.

Based on the post-test questionnaire analysis, it was found that almost all participants already understood the
definition of growth and development, indicators of child development, stages of child development, types of complementary foods for infants/toddlers according to age, methods of processing complementary foods, types of child growth disorders, types of child development disorders, how to assess child growth, how to assess child development, early detection of developmental disorders; and others.

The results of the pre and post-tests were then statistically analyzed using the Wilcoxon test. The average pretest result was 50.5 and an increase in the post-test result was 83.5. Based on the analysis using the Wilcoxon test, it was found that there was a statistically significant difference in the pretest and post-test scores of the participants regarding assessing children's growth and development and fulfilling family nutrition (p=0.000). These results explain that the provision of health promotion/counseling/health education can increase public knowledge about child growth and development and family nutrition.

Table 2. Pre and Post-Test Mean Values and Statistical Tests

|                      | Pre-test Mean | Post-test Mean | p-value |
|----------------------|---------------|----------------|---------|
| Knowledge of growth  | 50.5          | 83.5           | 0.000*  |
| and development and  |               |                |         |
| family nutrition     |               |                |         |

Note: Wilcoxon test

4. DISCUSSION

Based on the results of the discussion at the time of giving the material, it was found that almost all mothers of infants/toddlers did not know and could not assess children's growth and development using the KIA book. The KIA book that has been owned so far has not been used optimally, it is only brought when Posyandu activities, rarely read let alone applied.

Integrative holistic early childhood development is an early childhood development carried out to meet the diverse and interrelated essential needs of children simultaneously and systematically. Child development is a complex thing that is influenced by various factors. The factors that influence growth and development make each unique and different because each person does not necessarily have the same trigger factors. Stimulation, detection, and early intervention activities for child development deviations are comprehensive and coordinated in the form of integration between the family (parents, child caretakers, and other family members), the community (cadres, community leaders), and professional staff (health, education, and schools) will improve the quality of child development. Indicators of success in fostering child development are not only increasing in the health and nutritional status of children but also the mental, emotional, so, social and independent development of children optimally.

Community participation, especially among parents, is very important in detecting children's growth and development. With the knowledge possessed will be able to health knowledge health, especially the growth and development of children. Parents are expected to be able to actively participate in monitoring the process of growth and development and health of their children independently.

Early detection of developmental deviations needs to be done to be able to detect early developmental deviations in toddlers, including following up on any complaints from parents about their child's growth and development problems. If deviations are found, then early intervention is carried out in the development of toddlers as a corrective action by utilizing the plasticity of the child's brain so that growth and development return to normal or the deviation does not get worse. If toddlers need to be referred, then referrals must also
be made as early as possible according to indications.¹

Parental knowledge about growth and development will greatly affect the ability of parents to stimulate children's growth and development.¹⁰ There is a significant relationship between mother's knowledge about child development and gross and fine motor development of children aged 4-5 years at Bustanul Atfal 7 Kindergarten in Semarang.¹¹

Based on the results of the analysis, it was found that there was a statistically significant difference in the pretest and posttest values of the service participants regarding child growth and family nutrition. These results explain that the provision of health promotion/counseling/health education can increase people's knowledge about child growth and development and family nutrition.

Targeted health education will have an impact on comprehensive prevention (5 levels of prevention) and increase knowledge on health and improve public health status.¹² Methods that can be used in providing health education are lecture methods, group discussions, brainstorming, panels, play roles, demonstrations, symposia, seminars in a community or group as well as guidance and counseling for an individual.¹³

5. CONCLUSION

After getting material on child growth and development and family nutrition, the understanding of the people of Kaliasin Village, Tanjung Bintang District, South Lampung Regency has increased. The participants who participated in the program were 30 people consisting of mothers of babies/toddlers and health cadres. Almost all participants have been able to independently assess children's growth and development using the Mother and Child Health (KIA) book and understand meal planning for infants/toddlers. It is suggested that it is necessary to provide health education regarding child growth and development and family nutrition sustainably and sustainably to detect early risk of impaired child growth and development so the community can meet the nutritional needs of each family member.

REFERENCES
[1]. Ministry of Health, Republic of Indonesia. Guidelines for the Implementation of Stimulation, Detection, and Early Intervention for Child Development. Jakarta: Ministry of Health. 2016.
[2]. Soedjatmiko. Early Detection of Toddler Developmental Disorders. [Internet]. Sari Pediatri; 2001 [cited on 28 April 2022]; 3(3): 175-188. Available at https://saripediatri.org/article/download

[3]. Prastiwi MH. Growth and Development of Children Aged 3-6 Years. [Internet]. 2019, [cited on 30 Juli 2022]; 10(2): 242-249. Available at https://akper-sandikarsa.ejournal.id/JIKSH.

[4]. World Health Organization (WHO). Health Statistic. France: WHO. 2010.

[5]. Zablotsky B, Black II, Blumberg JS. Estimated Prevalence of Children With Diagnosed Developmental Disabilities In The United States. USA: Centers for Disease Control and Prevention. 2016.

[6]. Indonesian Pediatrician Association (IDAI). The Importance of Monitoring Growth and Development in the First 1000 Days of a Child's Life. [Internet]. 2017. [cited on 28 April 2022]; Available at https://www.idai.or.id/artikel/klinik/pengasuhan-anak/pentingnya-pemantauan-tumbuh-kembang-1000-hari-pertama-kehidupan-anak.

[7]. Ministry of Health, Republic of Indonesia. National Report RISKESDAS 2018. Jakarta: Ministry of Health. 2018.

[8]. Sunarsih T, Sumanasa L, Ekawati. Health Promotion for Integrative Holistic Early Childhood Development. Yogyakarta: Pustaka Pelajar. 2018.

[9]. Phadila NI, Sunarti, Ernasari. Early Detection of Child Development at Bontonompo Public Health Center, Gowa District. [Internet]. Idea Pengabdian Masyarakat; 2021 [cited on 30 Juli 2022]; 1(1): 13-16. Available at https://ideapengabdianmasyarakat.ideajournal.id.

[10]. Rahardjo K. Neonatal, Infant, Toddler and Preschool Care. Pustaka Belajar: Yogyakarta. 2012.

[11]. Ariyana D, Rini NS. The Relationship of Mother's Knowledge About Child Development with Gross and Fine Motor Development of 4-5 Years Old Children at Bustanul Atfal 7 Kindergarten Semarang. Jurnal keperawatan, 2012 [cited on 30 Juli 2022]; 2 (2), 11-20. Available at Jurnal.unanimous.ac.id/index.php/FI Kke S/article/view/235/244

[12]. Fitriani S. Health Promotion. 1st edition. Yogyakarta: Graha Ilmu. 2011.

[13]. Notoatmodjo S. Health promotion and health behavior. Jakarta: Rineka Cipta. 2012.