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EARLY DETECTION FOR CHILD GROWTH AND DEVELOPMENT IN POSYANDU DADAPKUNING VILLAGE, CERME-GRESIK SUB-DISTRICT

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ABSTRACT

Introduction: The incidence of stunting in the village of Dadapkuning Cerme-Gresik is currently 6 cases. Early detection is crucial for identifying and addressing growth and developmental issues promptly, thereby reducing the risk of stunting. The team of KKN-BBK Dadapkuning created a program to improve Integrated Services Post (Posyandu) by conducting Early Detection of Child Growth and Development (DDTK). Purpose of study is to early detect on developmental deviations in toddlers and pre-schoolers to early identification to promote the healthy development of children.

Methods: The method used was a qualitative descriptive approach and data collection techniques were taken based on the results of observations on 20 toddlers and direct interviews with parents. This examination is carried out using a Developmental Pre Screening Questionnaire (KPSP) which contains several instructions to the child and several questions to be asked for parents or caregivers.

Results: 2 children were obtained with a Doubtful interpretation of the results (M), because there was an answer "No" on the KPSP sheet, especially on social independence points.

Conclusion: Early detection of the growth and development of toddlers is very important to identify deviations as early as possible and intervene appropriately. Health workers need to provide education to parents in providing optimal stimulation for children's growth and development.

KEYWORDS

community services; early detection; stunting.

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1. INTRODUCTION

Child growth and development is an important indicator for the welfare and future of a nation. Optimal growth and development processes will form strong physical, cognitive and emotional development in adulthood. However, the incidence of stunting as a manifestation of chronic malnutrition in children is still a serious concern in the world.

Globally, the prevalence of stunting in children is around 21.9% and more than half of this is in Asia (Gani et al. 2021). According to WHO, stunting is a condition that indicates chronic growth retardation caused by long-term malnutrition. Stunting is based on the body length index for age (PB/U) or height for age (TB/U) with a limit (z-score) of less than -2 SD (World Health Organization 2019). Early detection of

child development is widely recognized as a fundamental first step in identifying abnormal child development and providing timely intervention. Early detection efforts have a crucial role in identifying potential risks for developmental disorders and providing appropriate interventions before the problem becomes more serious (Sari 2021).

The percentage of short toddlers in Indonesia in 2018 was 19.3% and 11.5% of very short toddlers. Data in East Java, the number of short toddlers shows an increasing trend from 2016 to 2018, namely from 18.62% to 19.9% (Badan Pusat Statistik 2018). Stunting is caused by several interrelated factors, including nutritional factors found in food. The quality and quantity of nutritional intake in children's food needs attention because it is often low in the nutrients needed to support their growth and development (Kurniasari et al. 2022). In the long term, stunting in toddlers results in a higher risk of non-communicable diseases due to metabolic disorders in adulthood. This condition will increase the disease. Furthermore, stunting toddlers are more susceptible to infectious diseases (Millward 2017).

The incidence of stunting in Dadapkuning Village is currently 6 cases. Indirectly, stunting is also related to delays in children. This is because several factors that cause stunting also occur in children's developmental disorders, such as inadequate nutritional intake. Therefore, some stunted children also tend to experience delays in growth and development (Wulandari et al. 2021). Dadapkuning Village continues to strive to overcome the problem of stunting by increasing education and examination of toddlers in the posyandu service program. Through posyandu activities, early detection of child growth and development can be carried out, which aims to detect early developmental deviations in toddlers and preschool children. This community service program is carried out in Kuliah Kerja Nyata-Belajar Bersama Komunitas (KKN-BBK) Universitas Airlangga

activities which are integrated with the implementation of posyandu for toddlers. The aim of this community service is to prevent and reduce the incidence of stunting through the Early Detection of Child Growth and Development program. Through this program, it is hoped that growth and development disorders of children can be detected and intervened as early as possible.

2. MATERIAL AND METHODS

This community service activity was carried out on Wednesday 13 July 2023 at the posyandu activity in Dadapkuning Village, Cerme Gresik District. The method used was a qualitative descriptive approach and data collection techniques were taken based on the results of observations on 20 toddlers and direct interviews with parents. Respondents were selected by randomly to represent each age category according to the examination schedule. This activity involves village midwives and cadres and Airlangga University students who are currently taking part Kuliah Kerja Nyata – Belajar Bersama Komunitas (KKN-BBK). Activities carried out during the posyandu include measuring body weight, height, and head circumference, followed by the early detection examination of growth and development.

The implementation of this activity uses a tool in the form of a Developmental Pre-Screening Questionnaire sheet, which will be adjusted to the toddler's age. The sheet contains several orders that will be given to the child and several questions that will be asked to parents or caregivers. The examination results can be seen from the "Yes" answers on the sheet. The number of answers "Yes" = 9 or 10, then the child's development follows the development stage (S). If the number of answers "Yes" = 7 or 8, then the child's development is doubtful (M). The number of answers "Yes" = 6 or less, then there is a possibility that the child has deviations in his development (P). After the results are obtained, an evaluation will be carried out by the team to find

out any doubtful deviations in the child's growth and development. After evaluation and analysis, team will tell to the parents about the examination results.

The following is the sequence of the work program execution of the team in the Early Detection of Child Growth and Development activities, namely:

1. First step: Problem identification was carried out through direct survey activities to Dadapkuning Village by conducting interviews with village officials and village midwives in the Dadapkuning area.
2. Second step: After obtaining information and identifying problems, team discussed together to determine the work program to be carried out to overcome these problems. The work program will be carried out to detect child growth and development early in the implementation of the Posyandu program to prevent and reduce stunting.
3. Third step: All members team prepare for the activity by dividing up their respective tasks, conducting joint inspection exercises, and then preparing Developmental Pre-Screening Questionnaire sheets sorted by age group.
4. Fourth step: Implementation of the activity begins with measuring height, weight, and head circumference. After that, toddlers categorized according to their age group will be directed to the team to be examined for Early Detection of Child Growth and Development.

3. RESULTS

The total number of children under five who were examined was 20 children. As many as 90% (18 children) received an interpretation of the results of the Appropriate developmental stage (S), meaning that the child's development was normal and was in accordance with the child's age and there were no deviations. However, from the examination results, it was also found that 10% (2 children) had a Doubtful interpretation of the results of the development stage

(M) on their Developmental Pre Screening Questionnaire. This is because there is 1 answer "No" on the Developmental Pre Screening Questionnaire sheet, especially the points of social independence. The results of the examination were obtained based on interviews with parents or caregivers as well as through observations made by the team.

Based on this table, in the examination conducted for An. Noval, the team used the 42 month old KPSP sheet. The KPSP sheet contains 4 instructions for children and 5 questions for parents which will be asked through a short interview. The results obtained from the examination were, there were 8 "Yes" answers and 1 "No" answer on social and independence points with the question "Can the child put his own shoes on?". Thus, the interpretation of the results of the developmental examination is doubtful. Interpretation of the same results was also obtained from the examination conducted for An. Angel. The examination was carried out using the 54 month old KPSP sheet which contained 5 commands to the child and 4 questions to parents or caregivers. The results obtained from the examination were, there were 8 "Yes" and 1 "No" answers on social and independence points with questions posed to caregivers "Can the child button his own clothes or doll clothes?". Thus, the interpretation of the results of the developmental examination was dubious also given to him.

After analyzing through the results of the examination that has been carried out, it turns out



Figure 1. The early detection examination of growth and development in posyandu

Table 1. Results of The Examination

No	Toddlers Name	Age (Month)	KPSP Type	Gross Motor		Fine Motor		Speech and language		Socialization and independence		Total	
				Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1.	Rafa	3	3	4	0	2	0	2	0	2	0	10	0
2.	Putra	6	6	4	0	4	0	1	0	1	0	10	0
3.	Syifa	6	6	4	0	4	0	1	0	1	0	10	0
4.	Mayang	9	9	5	0	2	0	1	0	2	0	10	0
5.	Ardan	9	9	5	0	2	0	1	0	2	0	10	0
6.	Jihan	12	12	3	0	3	0	2	0	2	0	10	0
7.	Zidan	12	12	3	0	3	0	2	0	2	0	10	0
8.	Raihan	15	15	5	0	2	0	1	0	2	0	10	0
9.	Dinda	18	18	4	0	2	0	1	0	3	0	10	0
10.	Tiara	21	21	3	0	3	0	1	0	3	0	10	0
11.	Galih	24	24	3	0	2	0	3	0	2	0	10	0
12.	Qiana	36	36	3	0	3	0	3	0	1	0	10	0
13.	Reyshaka	36	36	3	0	3	0	3	0	1	0	10	0
14.	Noval*	42	42	3	0	2	0	0	0	3	1	8	1
15.	Whita	42	42	3	0	2	0	0	0	4	0	9	0
16.	Krisna	48	48	3	0	2	0	1	0	3	0	9	0
17.	Anindya	48	48	3	0	2	0	1	0	3	0	9	0
18.	Angel*	54	54	1	0	3	0	2	0	2	1	8	1
19.	Kayla	60	60	2	0	2	0	3	0	3	0	10	0
20.	Devan	60	60	2	0	2	0	3	0	3	0	10	0

*Child with interpretation of the results is doubtful

that the child does not get the opportunity to do work related to the stage of independent social development, for example wearing his own shoes or fastening his own clothes buttons. The results of the interviews also showed that parents or caregivers feel impatient when children do the work themselves, so parents or caregivers always do this for their children. Without realizing it, this can have an impact on the child's independence process, where the child becomes more spoiled and lazy. Thus, the child becomes too dependent and always asks for help in carrying out activities that the child should be able to do independently.

4. DISCUSSION

The early detection program for child development has become a national health service worldwide, including in Indonesia. The Stimulation of Detection and Early Intervention of Child Growth and Development must be implemented routinely at the Community Health Center (*Puskesmas*) (Mardiyanti and Case 2021). However, according to Mardiyanti's research (2021), health workers in Indonesia, especially midwives and nurses, still need help in

detecting and intervening in children suspected of having developmental delays.

Due to lack of staff carrying out, The Stimulation of Detection and Early Intervention of Child Growth and Development program in Dadapkuning Village has yet to be carried out routinely by the *puskesmas* and *posyandu*. In addition, there are no trained personnel other than village midwives. Playgroup/Kindergarten cadres and teachers have never attended any training related to The Stimulation of Detection and Early Intervention of Child Growth and Development implementation. So, in practice so far, if toddlers experience delays, they come directly to the growth and development polyclinic at the *posyandu*. Of course, this is still not effective due to the lack of knowledge of parents regarding the stages of child development, causing them to be less sensitive when their child experiences delays and feel that this is still normal. As a result, the intervention to be given is quite difficult due to delays in detection.

A child's future success is greatly influenced by the first 1000 days of life. The main factors that influence a child's development are genetics and the environment in which the child lives. The role of parents is very important for the growth and

development of children. This is in line with Syahailatua's research (2020), which states that parents who know the growth and development of children correctly can immediately recognize when a delay occurs in their child so that they can provide overall stimulation (Syahailatua and Kartini 2020). The role of a mother is very important in stimulating her child. A mother who works outside the home will cause her presence in the child's daily life to be less, and this will have an impact on the mother's opportunity to stimulate the development of children (Saleh et al. 2021).

Development is a process resulting from the maturation of the body due to increased ability (skills) both morphologically and functionally to become more complex. In the body, there is a change or maturity of cells, tissues, and organs so that each can function properly (Zukhra 2017). The aspects of development that are monitored include: 1) gross or gross motor movements related to the child's ability to make movements and body postures involving large muscles, 2) fine movements or fine motor skills related to the child's ability to carry out movements involving the following parts: certain small parts of the body and carried out by small muscles, but requires careful coordination such as observing something, writing and so on. 3) Speech and language skills related to the child's ability to respond to sound, speak, communicate, follow orders, et cetera. 4) Socialization and independence are related to children's independent abilities in socializing and interacting with the environment (Sari and Sartika 2021).

Based on the results of the work program for Early Detection of Child Growth and Development, two children had a Doubtful (M) interpretation of the results; this was because there was an answer "No" on the KPSP sheet, especially on social self-reliance points. After analysis, it turns out that the child does not get the opportunity to do work related to the stage of independent social development, for example,

wearing his shoes or fastening his clothes buttons. The interviews showed that parents felt impatient when their children did the work themselves, so parents or caregivers always did it for their children. Without realizing it, this can have an impact on the child's independence process. Children tend to become more spoiled and always depend on or ask for help in carrying out activities that they should be able to do independently. Based on this, parents' lack of knowledge in parenting their children has a major influence on the stage of child development in the future. Providing stimulation may be difficult to do if the family needs more knowledge and has to deal with its busy work. Therefore, making referrals is very important for children with a high risk of developmental delays for intervention

Developmental deviations that occur in children are influenced by many factors, one of which is health factors related to the child's nutritional status and environmental factors where the child lives. A child's success in the future is greatly influenced by the period of the first 1000 days of life or what is usually called the "Golden Period". In this period, if the child does not receive enough stimulation at home, it will most likely cause symptoms of deviation that will lead to developmental stages (Tobing et al. 2021). Most of these symptoms can be addressed properly so that the child's development stage can be normal according to his age, if optimal early intervention is carried out. The role of parents is very important for the growth and development of children (Kementrian Kesehatan RI 2016).

The aim of early child development intervention and referral is to correct, improve and overcome developmental problems or deviations so that children can grow and develop optimally according to their potential. The most appropriate time is as early as possible when the child is still aged 0-5 years, where this period is the most important period in the child's development stage. If these deviations are detected too late, intervention will be more difficult to

carry out and this will affect the child's subsequent growth and development (Kementrian Kesehatan RI 2016).

5. CONCLUSION

The community service activity Stimulation of Early Detection and Intervention of Child Growth and Development received a good response from the village government and the community, so that the implementation of the activity could run well. Hope for the future, midwives can add cadres and provide training regarding early detection of child growth and development, so this program can be implemented regularly every month to provide optimal intervention.

Children who experience delays will be given stimulation and re-examined 2 weeks later. If the examination results are still the same, a referral will be made to the child growth and development clinic at the Community Health Center.

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