



Early Detection and Stimulation of Growth and Development in Toddlers in Sidorahayu Wagir Village, Malang Regency

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ABSTRACT

Early age, especially the first 1000 days of life, is an important time for brain development, which includes physical, language, cognitive and socio-emotional development. Brain development depends on various interacting factors, such as genetic factors, health and nutritional status, the quality of child-mother interactions, and environmental characteristics. Screening is just a routine procedure in daily child growth and development checks, which can provide clues if there is something that needs attention. So a good history is still needed, a thorough physical examination and other supporting examinations so that a diagnosis can be made, so that intervention and treatment can be carried out as well as possible. The aim of this service is to detect early growth and development disorders in toddlers and provide education to cadres and parents about the importance of regularly checking their children's growth and development and the importance of providing stimulation. The target of this activity is cadres and parents of toddlers who have toddlers aged 3-60 months. The method used in the activity is the KPSP child growth and development detection instrument and to increase parents' knowledge about growth and development, it is carried out through counseling, question and answer discussions and demonstrations on how to stimulate children's growth and development. The results of early detection of growth assessment using the WHO curve showed that 27 children (90%) were of normal stature and normal nutrition and 3 children (10%) were malnourished. For examining children's development using the KPSP instrument, the results were 25 children (83%), with appropriate development. and 5 children (17%) with questionable development. Providing education related to growth and development and stimulation for toddlers is important for cadres and parents in an effort to optimize the growth and development of toddlers to welcome the golden generation.

KEYWORDS

Early Detection, Stimulation, Growth, Development, Toddlers

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INTRODUCTION

The existence of screening activities or early detection of children's growth and development means that deviations in development can be detected as early as possible. Early detection is aimed at monitoring development so that it is appropriate to the child's age stage. Early detection followed by





intervention has been proven to improve the status of children's developmental deviations towards appropriate development (Padila, Andira, Andri, 2019). However, in reality, early detection is still limited in certain areas, for example motor skills (Humaedi et al., 2021) and in the field it has not been maximally promoted (Khairunnisa et al., 2022).

The most effective process for handling child development is to provide direct learning experiences to children and families, with longer duration, high quality and high intensity, and integrated with family, health workers, nutrition and also the education system (Engle et al. , 2017) Monitoring children's growth and development really requires family participation, with early detection by parents it can identify 1 – 6% of children who experience growth and development disorders.

Early age, especially the first 1000 days of life, is an important time for brain development, which includes physical, language, cognitive and socio-emotional development. Brain development depends on various interacting factors, such as genetic factors, health and nutritional status, the quality of child-mother interactions, and environmental characteristics. Research shows that the early childhood environment has a major influence on brain development. A baby is born with billions of brain cells that represent his or her lifetime potential. However, to develop, these brain cells need to connect with each other or what is known as the process of synaptogenesis. The more stimulation from the environment given at an early age, the more synapses between brain cells are connected. Apart from synaptogenesis, neuroplasticity, which is the brain's ability to change in response to exogenous stimuli, is also found to be highest in the first 3 years of life. Therefore, every child needs to receive regular stimulation as early as possible and continuously at every opportunity. Basically, stimulation is not only carried out at an early age, but is also continued at a later age to continue to optimize the child's development at every stage of his development. Stimulation of children's growth and development can be carried out by mothers and fathers who are the people closest to children, child caregivers, other family members, and community groups in everyday life. Lack of stimulation can cause deviations in a child's growth and development and even permanent disorders. The basic abilities of children that are stimulated with targeted stimulation are gross motor skills, fine and adaptive motor skills, speech and language skills, as well as socialization and independence skills.

Based on the results of preliminary studies and literature studies, it is clear that posyandu is a community-based basic service unit to fulfill the basic needs of developing human qualities from an early age, as well as a component in realizing family welfare. As a form of Community Based Health Effort (UKBM) which is managed and organized from , by, for and with the community in the provision of health services and development to make it easier for the community to obtain basic health services and reduce maternal and infant morbidity and mortality rates.

This community service activity is carried out to increase the knowledge and skills of cadres and parents in early detection of toddler growth and development. By providing education and empowerment to cadres and parents in the Wagir Community Health Center area, Malang Regency regarding early detection of toddler growth and development as an effort to increase the knowledge and skills of cadres to improve the health status of toddlers through early detection of toddler growth and development. So as to create an increase in the health status of toddlers, increase the knowledge of cadres and parents of toddlers, and minimize the incidence of delays in



the growth and development of toddlers in the Wagir Community Health Center area, Malang Regency.

MATERIALS AND METHODS

This activity was carried out with planning, namely first coordinating with Health officers from the Wagir Community Health Center and with several cadres in Sidorahayu Village, Wagir District, Malang Regency to work together, the activity was accompanied by toddler posyandu activities in Sidorahayu Village. Both preparations: Height measuring equipment (microtoist) and scales can be prepared properly. Third, prepare activities while still implementing health protocols, namely wearing masks, washing hands and maintaining distance. Fourth, carry out screening using the KPSP sheet and KIA book. Fifth, provide education to cadres and parents of babies and toddlers regarding the importance of early detection of child growth and development and stimulation of toddler growth and development. Next, the implementation was carried out according to schedule at 09.00 WIB, registration of toddlers was carried out, then early detection examinations were carried out regarding the growth and development of toddlers. After examining the toddlers, health promotion was carried out regarding the growth and development of toddlers aged 3-60 months, followed by providing skills to cadres and mothers of toddlers on how to provide appropriate growth and development stimulation to toddlers.

RESULTS AND DISCUSSION

An important period in the growth and development of children is when they are under five years of age, this influences and determines the child's development in the next stage. (Soetjiningsih, 2013). This community service activity received a positive response as seen from the enthusiasm of the parents during counseling, discussions, questions and answers and demonstrations on how to stimulate children's growth and development. This activity succeeded in checking the growth and development of 30 children aged 3-60 months.

The target of this activity is cadres and parents of toddlers who have toddlers aged 3-60 months. The method used in the activity is the KPSP child growth and development detection instrument and to increase parents' knowledge about growth and development, it is carried out through counseling, question and answer discussions and demonstrations on how to stimulate children's growth and development. The results of early detection of growth assessment using the WHO curve showed that 27 children (90%) were of normal stature and normal nutrition and 3 children (10%) were malnourished. For examining children's development using the KPSP instrument, the results were 25 children (83%), with appropriate development. and 5 children (17%) with questionable development.

The implementation of stimulating children's mental growth and development through therapeutic group therapy is as follows:

1. First session: the concept of stimulating toddler initiative. In this session, the activities carried out were the team leader and presenter discussing the experiences faced by parents of toddlers, the needs of early childhood growth and development stages, (every aspect of development influences initiative development tasks) deviations in toddler behavior and How has it been providing for its developmental needs? As a



result of this first session, the teacher knows the developmental needs of toddlers, the characteristics of initiative development, behavioral deviations and how to overcome problems that arise according to the developmental stage of toddlers.



Picture 1. participant registration

2. Second session: stimulation of gross and fine motor skills. In this session, the activity carried out was that the speaker taught teachers to stimulate the development of gross and fine motor aspects. The gross motor activities trained are; walking on a narrow plank, jumping rope and sack races. Meanwhile, the fine motor activities that are trained include drawing shapes such as; circles, squares, sun, moon, stars, houses and people, then count small objects such as peanuts and put them in a bottle. Stimulation is given through play without giving the impression of ordering the child. After teaching the cadres and parents, the presenter practices direct stimulation on children, then the therapist gives the cadres and parents the opportunity to practice direct stimulation on children. The speaker also asked the cadres to convey to parents that they train regularly and give children the opportunity to practice the skills. The speaker is also expected to always give praise for the family's success in stimulating and the child's success in carrying out the skills being trained. Therapists also teach teachers how to praise children for their success in carrying out activities, and how to motivate children to keep trying if they have not succeeded in carrying out activities.



Picture 2. Anthropometric measurements

3. Third session: cognitive and language stimulation. In this session, the activities carried out are the therapist teaching the teacher to stimulate the development of cognitive and language aspects which includes cognitive aspects, namely: grouping objects based on shape and size, recognizing 4 or more kinds of colors, and telling stories using imagination. . In the language aspect, cadres and parents help pre-school children achieve language skills, namely telling stories using complete sentences of 3 to 4 words, saying the names of the days of the week, the names of the months and following three commands at once. After teaching the cadres, the presenter practices direct stimulation on children, then the therapist gives the cadres and parents the opportunity to practice direct stimulation on children. The speaker also asks for the commitment of cadres and parents to train cognitive and language skills regularly and give children opportunities to practice skills. Therapists are also expected to always give praise for the family's success in stimulating and the child's success in carrying out the skills being trained. The speaker also teaches cadres how to give praise to children for their success in carrying out activities, and how to motivate children to keep trying if they are not successful in carrying out activities.





4. Fourth session: emotional and personality stimulation. In this session, the activity carried out is that the therapist teaches the stimulation of the development of emotional and personality aspects to cadres and parents. Emotional aspects that are trained include: expressing and adapting to the emotions felt, for example; joy, pride, fear, and anger; as well as other forms of emotion, training children to postpone their desires/not force their desires and to express gratitude for other people's gifts and apologize if they make mistakes. Meanwhile, personality aspects that are trained include saying full name, nickname, gender, knowing body size, comparing with each other. After teaching to cadres and parents, the therapist practices direct stimulation methods for children, then the therapist gives the teacher the opportunity to practice direct stimulation for children. . Therapists also ask for parental commitment to train children to recognize themselves and their emotions and help children express their emotions and strengths appropriately. Cadres are also expected to always give praise for the family's success in stimulating and the child's success in carrying out the skills being trained. The speaker also teaches parents how to give praise for their child's success in carrying out an activity, and how to motivate their child to keep trying if they haven't succeeded in carrying out the activity.
5. Fifth session. sharing experiences. In this session, the activities carried out were the presenters asking about the stimulation methods that had been taught to cadres and parents, what the benefits were for the children, the competencies that the children had achieved and sharing experiences between teachers regarding the developmental stimulation that had been carried out so far.

CONCLUSIONS

Growth and development stimulation is an activity that aims to improve the growth and development of children under five. Stimulating children's growth and development is carried out by providing opportunities for children to share experiences, help each other in stimulating development and focus on relationships or interactions within the group. Stimulation of children's growth and development through group therapy to improve gross motor skills, including by playing with jump rope, walking along lines, and walking on tiptoes. Stimulation to improve fine motor development through writing numbers and letters, matching and counting numbers, drawing from various points of view. Stimulation for cognitive development includes activities through drawing the shape of a person with six limbs, the ability to tell stories with fantasy. Language development focuses on the child's ability to explain or give reasons for doing something, the child's ability to tell stories in complete sentences. Emotional development focuses on the child's ability to postpone desires or not force desires. Spiritual development in the ability to pray before and after activities.

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REFERENCES

- Aritonang, I. (2012). Model multilevel pertumbuhan anak usia 0-24 bulan dan variabel yang mempengaruhinya. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 16, 130–142.
<https://journal.uny.ac.id/index.php/jpep/article/view/1109>
- Ariyanti, T. (2016). Pentingnya Pendidikan Anak Usia Dini Bagi Tumbuh Kembang Anak The Importance Of Childhood Education For Child Development. *Dinamika Jurnal Ilmiah Pendidikan Dasar*, 8(1).
<https://jurnalnasional.ump.ac.id/index.php/Dinamika/article/view/943>
- Armayani, Yati, M., Yusnayani, C., & Firman. (2020). Minimizing attention of deficit hyperactivity disorder in children ages 7–10 years through early detection in state 1st SD 1 Poasia Kendari 2017. *Enfermeria Clinica*, 30(2019), 81–83.
<https://doi.org/10.1016/j.enfcli.2019.11.026>
- Arovah, N. I. (2012). Status kegemukan, pola makan, tingkat aktivitas fisik dan penyakit degeneratif dosen dan karyawan universitas negeri Yogyakarta. *Medikora*, 2.
<https://journal.uny.ac.id/index.php/medikora/article/view/4649>
- Booij, L., & Nicolosi, M. (2021). Early childhood care, support and research: how early screening and longitudinal studies can help children thrive. *Jornal de Pediatria*, 97(6), 579–581. <https://doi.org/10.1016/j.jpeds.2021.05.001>
- Bostic, B., Schock, N., Jeon, L., & Buettner, C. K. (2023). Early childhood teachers' sense of community and work engagement: Associations with children's social, emotional, and behavioral functioning. *Journal of School Psychology*, 98, 133–147.
<https://doi.org/https://doi.org/10.1016/j.jsp.2023.02.007>
- Guevara, J. P., Gerdes, M., Localio, R., Huang, Y. V., Pinto-Martin, J., Minkovitz, C. S., Hsu, D., Kyriakou, L., Baglivo, S., Kavanagh, J., & Pati, S. (2013). Effectiveness of developmental screening in an urban setting. *Pediatrics*, 131(1), 30–37.
<https://doi.org/10.1542/peds.2012-0765>
- Humaedi, H., Saparia, A., Nirmala, B., & Abduh, I. (2021). Deteksi Dini Motorik Kasar pada Anak Usia 4-6 Tahun. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 6(1), 558–564.
<https://doi.org/10.31004/obsesi.v6i1.1368>
- Inggrani, D. M., Rinjani, M., & Susanti, R. (2019). Deteksi Dini Tumbuh Kembang Anak Usia 0-6 Tahun Berbasis Aplikasi Android. *Wellness And Healthy Magazine*, 1(1), 115–124.
<https://wellness.journalpress.id/wellness/article/download/w1117/65>
- Julita, J. (2018). Pemeriksaan Tajam Penglihatan pada Anak dan Refraksi Siklopegik: Apa, Kenapa, Siapa? *Jurnal Kesehatan Andalas*, 7(Supplement 1), 51.
<https://doi.org/10.25077/jka.v7i0.771>
- Khairunnisa, M., Purwoko, S., Latifah, L., & Yunitawati, D. (2022). Evaluasi Pelaksanaan Program Stimulasi, Deteksi, dan Intervensi Dini Tumbuh Kembang di Magelang. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 6(5), 5052–5065.
<https://doi.org/10.31004/obsesi.v6i5.1885>