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## EDUCATIONAL PACKAGE FOR DETECTION AND STIMULATION OF TODDLER DEVELOPMENT

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### ABSTRACT

**Background** : An estimated 52.9 million children under the age of 5 are currently living with developmental disorders worldwide. Children who have developmental disorders. Through early detection steps, parents can find out children's growth and developmental problems early, so that prevention, stimulation, healing and recovery efforts from the child's growth and development process. The purpose of this study was to determine the effect before and after the detection and stimulation education package was given

**Method** : This type of research is quasy experiment with a crosssectional approach. The sampling of this study used Cluster random sampling with a total of 78 respondents and analysis using the T-test.

**Result** : The results showed statistically significant differences between the knowledge and attitudes of mothers who had toddlers before and after the education package with a p value of 0.001.

**Analysis** : Providing educational packages can increase knowledge about toddler development detection and stimulation

**Conclusion** : Advice for health workers, especially midwives, can provide comprehensive education and work together in early detection and stimulation of toddler development

**Keywords** : Development, Detection, Stimulation, Toddler

## 1. INTRODUCTION

The development of children is closely related to the relationship between children and parents. Parents who have a good and secure relationship, as well as a positive connection with their children, possess knowledge on how to support the optimal development of their children. The field of child development and early learn emphasizes the importance and complexity of interactions with young children from infancy to the early years of elementary school. Recent research has shed light on child development. Studies have indicated that early childhood is a critical period during which developmental changes occur, and these changes can have profound and lasting consequences for the child's future. (National-Academy-of-Sciences, 2015)

Developmental delay is one of the most common disorders in young children, with a prevalence of around 15% (O'Hare and Bremner, 2016) (Simpson, Colpe and Greenspan, 2003). Children with developmental delays may result from various disorders that tend to evolve into multiple chronic and lifelong conditions. These include intellectual disabilities, speech problems, socio-communicative disorders, sensory disorders, other physical complications, and behavioral and emotional disorders. The importance of early identification of affected children is crucial to advise parents, enabling diagnostic examinations, and initiating appropriate therapeutic support for infants with developmental delays or at risk of such delays (Spittle *et al.*, 2015; Cioni, Inguaggiato and Sgandurra, 2016; Anderson, Treyvaud and Spittle, 2020).

While significant progress has been made in reducing child mortality rates in low- and middle-income countries over the past few decades, the number of children with developmental disorders remains unchanged (Olusanya BO, Davis AC, Wertlieb D, Boo N-Y, Nair MKC, 2018). An

estimated 52.9 million children under the age of 5 are currently living with developmental disorders worldwide. Children experiencing developmental disorders face substantial social, emotional, and financial challenges, often associated with higher levels of poverty, limited access to services, and heightened social stigma (Nakamanya *et al.*, 2015)

Indonesia, with one of the largest populations globally, has toddlers accounting for 10% of the total population. In 2015, the Ministry of Health issued specific regulations for healthcare and non-healthcare professionals to monitor the growth and development of children, including regular monitoring of gross motor skills, fine motor skills, socialization, and independence from 3 months to 72 months of age. Good growth and development corresponding to age expectations are anticipated to lead to a healthy and productive adulthood (Lutfiya, Irwanto and Purnomo, 2019).

Early intervention for children with developmental disorders is increasingly recognized as a priority on the global agenda. The United Nations' Sustainable Development Goals aim to ensure that children have access to quality development and care. Additionally, the Global Strategy for Women's, Children's, and Adolescents' Health (2016-2030) supports three core pillars, emphasizing that children should not only 'survive' but also 'thrive' (Sadoo *et al.*, 2022)

Early childhood interventions have the potential to improve the quality of family life and reduce functional disturbances in high-risk newborns, either directly or indirectly. This can be achieved through the enhancement of a nurturing environment that understands how to detect developmental disorders and implement appropriate stimulation. Early detection of developmental issues can enhance the quality of a child's development (Carlo *et al.*, 2013). The use of booklet media makes it easier to manage and understand the

concept framework of the material that combines interesting images and appropriate material. The use of booklet media is easier to attract to participate in counseling activities, especially information services. The implementation of services is more exciting and not monotonous like providing information with the lecture method. Booklet itself is one type of graphic media that is small (half quarto) and thin, no more than 30 alternating sheets containing material as needed and illustrative images. Booklet media is a combination of leaflets and books that are small in size like leaflets. Withdrawable. The conclusion that booklet media is a small print media and serves to provide information about reading skills (Herawati *et al.*, 2021)

Assessment of growth and development can be conducted from an early age, even from birth, through a process known as early detection. Early detection is the effort made by parents to conduct comprehensive screening to identify deviations in a child's development. Through early detection, parents can identify growth and developmental issues early on, allowing for prevention, stimulation, healing, and recovery efforts in the child's developmental process (Putri, Pamungkasari and Prasetya, 2020)

Mothers, fathers, and other close family members, as well as community groups, Lack of stimulation can lead to deviations in a child's development and even permanent disorders. Early detection by parents of toddlers can provide early intervention in child stimulation (Inglebret *et al.*, 2017).

One of the studies conducted in Air Oinang Village, East Simelue District, stated the role of parents in improving Eastern early childhood development in general as educators, person in charge and nanny. The role is described by

Positive development is dominated by girls while development

Negativity is predominantly in boys. As for the constraints of parents in

improving early childhood development in Air Pinang Village, Sub-district

Among them the use of family togetherness time is not optimal,

Parental knowledge in early childhood development is still low and

Application of parenting and the use of learning techniques by parents (Novita, Amirullah and Ruslan, 2016)

The aim of this research is to determine the impact before and after providing an education package on the detection and stimulation of toddler development.

## 2. METHODS

This research is a quasi-experimental study, where the researcher measures the independent variables, namely the knowledge and attitudes of mothers before receiving an educational package (pre-test) and after the educational package is given (post-test). The research design is an Analytical Observational approach with a cross-sectional design. The researcher measures variables before and after the educational package is given, then observes the differences in these variables. The sampling method for this study is Cluster Random Sampling, selecting 87 mothers with toddlers from 5 randomly chosen Puskesmas (Community Health Centers) out of 27 in Kabupaten Pekalongan, namely Puskesmas Bojong, Karangdadap, Kedungwuni II, Buaran, and Siwalan. Data collection is done using a questionnaire, and the data analysis method employed is the t-test.

The educational package provided consists of education or counseling, along with a booklet explaining how to detect development using the Pre-Screening Developmental Questionnaire (KPSP) and developmental stimulation techniques.

3. RESULTS

Table 1.  
Frequency Distribution of Knowledge and Attitudes of Mothers with Toddlers Before and After Receiving an Educational Package

	Before		After	
	F	%	F	%
<b>Knowlegde</b>				
Good	4	5,1	27	34,6
Sufficient	33	42,3	35	44,9
Insufficient	41	52,6	16	20,5
<b>Attitude</b>				
Good	29	37,2	55	70,5
Insufficient	49	62,8	23	29,5

Based on the table above, there is a significant increase in the frequency of knowledge and attitudes among mothers with toddlers after receiving the educational package

Table. 2  
The analysis of the influence of providing an educational package on developmental detection and stimulation on the knowledge and attitudes of mothers with toddlers

Variable	Mean	Mean Diffs. <i>SS.</i>	P value	R	CI Lower	CI Upper
Knowledge						
Before	10,55			7,09	2,594	1,457
After	12,88			2		
Attitude		10,179	0,001	8,34	12,582	7,777
Before	11,12			9		
After	21,29					

Table 2 shows that the average knowledge of mothers with toddlers before the provision of the educational package was 10.55, while the average knowledge after the provision of the educational package was 12.88. There is a significant increase in the average knowledge values before and after the educational package, amounting to 12.026. The statistical test results using a paired T-test yield a p-value of 0.001 (<0.05), with a 95% confidence interval. It can be concluded that the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted, indicating a highly significant difference in

the knowledge of mothers with toddlers before and after the educational package.

According to Table 2, the attitude of mothers with toddlers was 11.12 before the educational package and increased to 21.29 after the provision of the educational package. The average mean attitude increase is highly significant, totaling 10.179, indicating a significant improvement after receiving the educational package. The statistical test results using a paired T-test yield a p-value of 0.001 (<0.05), with a 95% confidence interval. It can be concluded that the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted, indicating a highly significant difference in the attitude of mothers with toddlers before and after the provision of the educational package.

4. DISCUSSION

Children are the pillars of our nation's future. Therefore, meeting the needs of children is crucial. The physical, mental, and emotional condition of the mother during pregnancy plays a vital role in the growth and development of children(Wulandari, Uki Retno Budihastuti and Eti Poncorini Pamungkasar, 2017). The under-five years are critical in the development of children, and the following years are particularly important. This life stage is a crucial step in the developmental process, and if attention is lacking in each risk factor, it can lead to severe complications, growth disorders, and developmental issues in children, increasing the likelihood of complications and mortality . Children under the age of five represent a golden period for acquiring crucial skills such as perception, interaction, speech, and more. Therefore, early detection of development during this period is essential to identify developmental issues in children early on and provide follow-up care if development is not in line with age expectations (Toghyani *et al.*, 2015) Optimal development in early childhood has a significant impact on later life achievements. However, many children

may not develop optimally in their early years due to exposure to various contextual risk factors. It is increasingly recognized that early identification of developmental issues and correctiv Detection of development in children under five is a crucial aspect, especially for the parents of toddlers. Research results show an increase in the knowledge of mothers with toddlers before and after receiving an educational package. Knowledge is influenced by several factors, including ease of obtaining information. In this study, in addition to providing direct education, researchers also provided booklets with attractive images and WhatsApp group discussions that facilitated mothers with toddlers in discussing questions and answers regarding the detection and stimulation of toddler development.e actions is one of the most cost-effective interventions in the field of preventive child health(Dabar *et al.*, 2016).

The results of this study align with the research (Nurul Abidah and Novianti, 2020), which shows a difference before and after providing education to cadres regarding the detection of toddler development. Other studies also indicate that one factor related to the detection of toddler development is maternal knowledge. Parental knowledge is one of the essential aspects related to the information obtained, and the level of education, experience, as well as the lack of information obtained by parents regarding the detection and stimulation of toddler development will significantly determine their future development(Komariah and Nursanti, 2021). The results of the study also show a very significant increase in the attitudes of mothers. This educational package enhances the attitudes of mothers in detecting and stimulating the development of toddlers. This is crucial, as the stimulation provided by close relatives will influence the development of the baby. Improving the detection and stimulation of development is essential to reduce future

disabilities that can increase the burden on the country(Sadoo *et al.*, 2022)

Early detection and stimulation have a positive impact on cognitive and motor outcomes during infancy, with cognitive benefits lasting until preschool age. Stimulation also affects the closeness between parents and children, stimulating brain cells to continue developing and enhancing more optimal child development(O'Hare and Bremner, 2016). The knowledge and attitudes of mothers with toddlers are also influenced by several factors, including education level, occupation, and the healthcare services received. Mothers with toddlers often focus on growth, such as weight and height gain. Therefore, providing information on the importance of development, how to detect developmental abnormalities, and the stimulation needed to ensure toddlers develop according to their age with optimal development is necessary.

## 5. CONCLUSION

There is a statistically significant difference in the knowledge and attitudes of mothers with toddlers before and after the educational package. A suggestion for healthcare professionals, especially midwives, is to provide comprehensive education and collaborate in the early detection and stimulation of toddler development during the critical ages of 0-5 years. Further research could be conducted with a larger sample size and more engaging educational media.

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