



## **IMPLEMENTATION OF MOTHER TODDLER CLASSES IN IMPROVING GROWTH AND DEVELOPMENT STIMULATION BEHAVIOR OF MOTHERS OF 4-5 YEAR OLD TODDLERS IN THE CIMAH TENGGAH HEALTH CENTER WORKING AREA**

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### **Abstract**

The preschool period, particularly at the ages of 4–5 years, is a golden age that is crucial for a child's growth and development. The active role of parents, especially mothers, is essential in supporting the stimulation of preschool children's development. A lack of stimulation can lead to developmental delays. One of the main contributing factors is the low level of maternal behavior regarding the importance of stimulation, which stems from the absence of a structured educational platform to assist mothers in fulfilling this role. Educational interventions such as mother-toddler classes have not been fully optimized to change maternal behavior. This study aims to determine the effect of mother-toddler classes on changes in maternal behavior in providing stimulation to preschool-aged children. The research design used is a pre-experimental approach with a one-group pretest-posttest design. The sample consisted of 39 mothers with children aged 4–5 years who met the inclusion and exclusion criteria. The study was conducted from October 2024 to April 2025. The intervention was carried out through mother-toddler classes over four weeks, divided into four sessions, and was evaluated using a validated and reliable questionnaire. The results showed that 64.1% of mothers had poor behavior in the pretest, while 61.5% had good behavior in the posttest. The McNemar test produced a p-value of 0.002 ( $p < 0.05$ ). The conclusion of this study is that the implementation of mother-toddler classes is effective in improving the behavior of mothers in providing growth and development stimulation to children aged 4–5 years in the working area of Cimahi Tengah Public Health Center.

**Keywords:** *Mother-Toddler Class, Behavior, Growth and Development Stimulation.*

## INTRODUCTION

Toddler is a term that comes from short for the word under five years [1]. Toddlerhood is the most important period in human life, where almost all aspects of a child's physical, mental and social development occur rapidly. In this phase, children experience rapid growth, both in terms of brain development and motor and social skills [2]. This period is often referred to as the Golden Age, a phase in which the stimulation given to children will have a significant impact on their future [3]. According to Zein, early speech development stimulation is very important to be done to train verbal communication, enrich vocabulary, develop the use of language that is appropriate to the situation, so that children speak fluently with the right pronunciation [4]. The stimulation provided must involve various aspects of child development, including gross motor, fine motor, language, cognitive, and emotional, so that their development can take place optimally [5].

he need for stimulation in children under five in Indonesia is still a big issue that needs more serious attention. Data shows that many children in Indonesia have not received adequate stimulation according to their developmental needs. According to a report from the Indonesian Ministry of Health, the prevalence of developmental disorders in children under five in Indonesia reaches 16%, which includes various problems such as speech delays, motor disorders, and socialization difficulties [6]. This condition is certainly concerning, considering that the toddler period is a critical period for children's development in the future. One of the main factors causing this high rate of developmental disorders is the lack of maternal knowledge about the importance of stimulation during child development [7]. According to Supartini, the cause of gross motor development delays in toddler age children is the lack of maternal knowledge about motor stimulation [8]. Mothers, as primary caregivers and central figures in children's lives, have a very important role in ensuring their children receive stimulation that is appropriate to their developmental stages [9].

Various studies have shown the importance of the mother's role in providing growth and developmental stimulation to children. Mothers who have good knowledge of child development are more likely to provide quality stimulation, which in turn will contribute positively to their child's development. Rivanka & Miming emphasize that mothers' knowledge of child development determines the quality of stimulation provided [10]. In this context, the Mother Toddler Class program is one of the effective efforts designed to improve mothers' knowledge and skills in providing appropriate stimulation to their children [11]. The program not only provides mothers with

theoretical information, but also engages them in practical activities that can be directly applied in their daily lives. The program also provides opportunities for mothers to learn in a participatory manner, discuss with fellow mothers of toddlers, and obtain direct guidance from health workers [12].

A study by Yusuf showed that participation-based health education, such as classes for mothers of children under five, can improve mothers' behavior in providing stimulation to their children [13]. Interactive information provision, where mothers of children under five can share their experiences with each other, has been shown to be more effective than passive counseling methods [14]. This method not only increases mothers' knowledge but also strengthens their commitment to apply what they have learned. In this study, the effect of the Mother Toddler Class program on mothers' behavior in providing stimulation of growth and development of children aged 4-5 years in the Cimahi Tengah Health Center Working Area will be evaluated. The results of this study are expected to make a significant contribution to efforts to improve the growth and development stimulation behavior of mothers of children under five in Indonesia.

## METHOD

This study employed a pre-experimental design with a one-group pretest-posttest approach to determine the effect of the mother-toddler class intervention on changes in maternal behavior in providing stimulation for the growth and development of preschool-aged children. The study was conducted in the working area of Cimahi Tengah Public Health Center from October 2024 to April 2025.

The intervention was carried out in the form of a mother-toddler class over a period of four weeks, with a total of four face-to-face meetings. Each session lasted approximately 90 minutes and was facilitated by the researcher along with health promotion officers and community health volunteers (posyandu cadres). The learning methods used included a combination of interactive lectures, group discussions, simulations, and hands-on practice. The media used in the sessions was a booklet.

The instrument used in this study was a questionnaire measuring maternal behavior in providing growth and development stimulation for preschool-aged children. Before the evaluation, the questionnaire underwent validity and reliability testing.

Data collection was carried out in two stages: pretest and posttest. The pretest was conducted before the implementation of the mother-toddler class to assess the initial condition of maternal behavior. The posttest was administered one week after the completion of all intervention sessions (following the fourth meeting). The questionnaires were distributed directly to the participating mothers and were self-administered, with assistance from the researcher and health cadres provided when participants encountered difficulty

understanding any of the statements.

Data analysis was conducted in two stages: univariate and bivariate analysis. Univariate analysis aimed to describe the characteristics of the respondents and the distribution of behavior categories before and after the intervention. For bivariate analysis, the McNemar test was used to determine the difference in the proportion of maternal behavior categories between the pretest and posttest. The significance level used in this study was  $\alpha = 0.05$ , and the results were considered significant if the p-value was less than 0.05.

RESULT AND DISCUSSION

Based on the results of research conducted in the Cimahi Tengah Health Center Working Area in 2024 with 39 respondents using purposive sampling technique, the following results were obtained.

Table 1. Characteristics

Characteristics	Frequency	%
<b>Education</b>		
SD	3	7,7
SMP	23	59,0
HIGH SCHOOL	33	33,3
<b>Jobs</b>		
IRT	34	87,2
Private Employee	5	12,8

Table 1 shows the results of the study that most respondents had a junior high school education, namely (59.0%) of the total respondents. This shows that the majority of mothers of toddlers are in the junior high school education level group. In addition, almost all respondents worked as housewives, namely (87.2%) of the total respondents.

Table 2. Frequency Distribution of Growth and Development Stimulation Behavior of Mothers of 4-5 Years Old Toddlers Before the Implementation of Mother Toddler Classes in the Cimahi Tengah Health Center Work Area in 2024

Behavior	Frequency	%
Good	12	35,9
Less	25	64,1
Total	30	100,0

Table 2 shows that almost half (35.9%) of mothers of toddlers aged 4-5 years in the Cimahi Tengah Health Center Working Area in 2024 before being given the application of toddler mother classes behaved well, but obtained (64.1%) behaved less.

Table 3. Frequency Distribution of Growth and Development Stimulation Behavior of Mothers of 4-5 Years Old Toddlers.

Behavior	Frequency	%
Good	12	35,9

Less	25	64,1
Total	30	100,0

Table 3 shows that most (61.5%) mothers of toddlers aged 4-5 years in the Cimahi Tengah Health Center Working Area in 2024 after being given the application of the toddler mother class behaved well.

Table 4. The Effect of Implementation of Mother Toddler Classes in Improving the Growth and Development Stimulation Behavior of Mothers of

	Good n %		Less n %		P Value
Before	14	35.9	25	64.1	0.002
After	24	61.5	15	38.5	

Based on table 4, it can be explained that before the application of the mother toddler class, almost half of the mothers of toddlers had poor behavior in stimulating the growth and development of the mothers of toddlers age 4-5 years, namely 35.9%, and after the application of the mother toddler class, most mothers of toddlers had good behavior in stimulating the growth and development of toddlers aged 4-5 years, namely 61.5%.

The results also showed that ho was rejected based on Mc Nemar's analysis, the results showed that there was a significant influence on behavior before and after the application of the toddler mother class with a p value of  $0.002 < \alpha (0.05)$ . Therefore, it can be concluded that there is an effect of the application of the mother toddler class on pregnant women in improving the behavior of stimulating the growth and development of mothers of toddlers aged 4-5 years in the Cimahi Tengah Health Center Working Area.

Discussion

The pre-test results showed that prior to the implementation of the toddler mother class, 64.1% of mothers had poor behavior in providing stimulation to their children. This figure reflects a signifivant gap between the knowledge possessed by mothers and growth and development stimulation behavior. This finding is in line with Jusriadi's research, which revealed that low maternal knowledge contributes to inappropriate behavior in providing stimulation [9]. Inadequate knowledge often leads to a lack of awareness of the importance of stimulation and the correct way to do it, so children do not get optimal developmental support.

When viewed from the educational factor, which in this study was mostly (59.0%) the junior high school level of education, we can know that lower levels of education tend to have less understanding of the stages of child development and how to provide appropriate stimulation. Research by Rivanka & Miming supports these results by showing that mothers' education level has a major influence on their knowledge of child development [12]. Lack of information and access to health education can also be a factor that exacerbates this situation, leading to ineffective growth and development stimulation behaviors.

After attending the toddler mother class, the post-test results showed a significant improvement in mother's behavior. A total of 61.5% of mothers showed better behavior in providing stimulation to their toddlers compared to before attending the program. This increase indicates that the Mother toddler class program has been successful in increasing mothers' understanding of the importance of stimulating their children's growth and development [11]. The results of this study are in line with research by Kartikawati et al. which showed that there was an increase in knowledge and skills in the intervention group who attended the toddler mother class compared to the control group [15].

These results are also in line with Jeong's study, which showed that participatory approaches in health education have high effectiveness in changing maternal behavior [7]. This approach allows mothers to interact directly, share experiences, and get more personalized guidance from health workers, which in turn influences their behavior in providing appropriate stimulation to their children [16]. Programs designed with this participatory method have been shown to be more effective than passive counseling methods that are often less able to produce significant behavior change [17].

The results of this study prove that the toddler mother class is effective in improving the growth and development stimulation behavior of mothers of toddlers aged 4–5 years. The results of this study are in line with other studies that found that health education on child growth and development influences mothers' actions in early detection of child growth and development. The information obtained during health education increased action significantly. This increase occurs because all the information that has been given during health education can be understood and applied in real action [18].

Before the toddler mother class, most mothers of toddlers had poor growth stimulation behavior; after attending the class, most had good behavior. Analysis using the McNemar test showed a significant difference between the behavior of mothers before and after the intervention, with a  $p$ -value of 0.002. This indicates that the Mother Toddler Class program has a significant impact on changes in the behavior of mothers in providing stimulation to their children [19]. The results of the McNemar test show that changes in the growth and development stimulation behavior of mothers of toddlers are the result of the toddler mother class, not a coincidence. This change in behavior indicates that the program is successful in improving the quality of stimulation provided by mothers, in line with the findings of p.Rosenbaum, which confirms that appropriate health education can produce positive behavior change [20]. Lack of

information and access to further health education can exacerbate this situation, leading to less effective growth and development stimulation behaviors that do not support optimal child development.

A growth and development class is a class where mothers with children aged 0–5 years discuss, share opinions and experiences on the implementation of health services, nutrition and growth and development improvement under the guidance of a facilitator using the MCH book. This class is very important because by empowering young mothers, they can improve their skills in caring for children under five. In order to improve the growth and development stimulation behavior of mothers of children under five, a class is held for mothers of children under five with the aim of improving the mother's skills in relation to childcare. The effect of this empowerment is to improve the health of children under the age of five [2].

Interactive information provision, where mothers of toddlers can share their experiences with each other, has been shown to be more effective than passive counseling methods [21]. This finding is consistent with Karrie's research, which states that health education involving participatory and interactive discussions is very effective in improving maternal behavior [22]. This participatory approach allows mothers to interact directly, share experiences, and receive more personalized guidance, which in turn helps mothers in implementing appropriate growth and development stimulation behaviors [23]. Interactive and participatory discussions can deepen mothers' understanding of the importance of stimulation and the right way to do it. In practice, mothers are encouraged to learn from each other's experiences, while the facilitator acts as a guide to the right knowledge. Facilitators are not teachers or lecturers who teach, but in a limited scope can be a source of learning [24]. Classes for mothers of toddlers that rely on learning resources from the experience of participants and the role of facilitators in expressing experiences as a source of learning are effective methods [9].

The theory of behavior change proposed by Roger explains that behavior change occurs through several stages, namely awareness, interest, evaluation, trial, and adoption [24]. The Mother Toddler Class program is designed to help mothers go through these stages. By providing sufficient and relevant information, the class enables mothers to go through the stages of awareness about the importance of stimulation, interest in learning more, evaluation of applicable methods, trial of new stimulation methods, and finally adoption of better behavior in providing growth and development stimulation to their children. The Mother Toddler Class Program has been shown to be effective in overcoming the problem of child developmental delays and increasing good stimulation behavior [25]. The program provides training and information needed by mothers to implement optimal stimulation, which in turn has a positive impact on child development.



The results of this study are also in line with the research of Baan et al., which shows that health education-based interventions can improve the mother's ability to provide stimulation in accordance with child development [26]. The Mother Toddler Class program has proven effective in overcoming the problem of developmental delays and improving the growth and development stimulation behavior of mothers of toddlers. With the results showing the effectiveness of this program, it is recommended that the Mother Toddler Class continue to be developed and implemented more widely. Expanding the reach and frequency of this program is expected to strengthen the role of mothers in supporting their children's development, especially in areas with high rates of developmental disorders [27]. Broader implementation will also allow more mothers to benefit from this program.

CONCLUSION

The results showed that the toddler mother class had an influence in improving maternal behavior about stimulation of toddler growth and development. Mc Nemar test ( $p=0.002$ ) showed that the class of mothers of toddlers succeeded in improving the behavior of mothers about the stimulation of growth and development of toddlers with an increase of (25.6%). To ensure that the mother's behavior remains optimal, it is recommended to carry out toddler mother classes can be implemented in each posyandu independently and continuously. In addition, conduct periodic assessments to provide constructive input to support the accuracy of the measurement results.

Conflict of Interest

All authors declare that there are no conflicts of interest related to the writing and publication of this manuscript. The authors have disclosed that they have no financial relationships, shareholdings, grants, or consultancy fees from any company whose products are mentioned or compete with those discussed in this manuscript. Should any potential conflict of interest arise after publication, the authors commit to promptly disclose it to maintain transparency and integrity.

Acknowledgment

We would like to express our sincere gratitude to all individuals who contributed to this research. Special thanks to those who provided valuable support, guidance, and assistance throughout the study. Their contributions have been invaluable in the completion of this work

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