

## ORIGINAL ARTICLE

# Psychosocial Stimulation Towards the Development of Toddler 1 – 3 years Old

Nita Ariani<sup>1</sup>, Trya Mia Intani<sup>2</sup>, Desi Sarli<sup>2</sup>, Sandeep Poddar<sup>1</sup>

<sup>1</sup> Lincoln University College, Wisma Lincoln, No. 12-18, SS6/12 Off Jalan Perbandaran, 47301 Petaling Jaya, Selangor D. E. Malaysia

<sup>2</sup> STIKes Alifah Padang, Khatib Sulaiman Street No. 52 B Padang, West Sumatera, Indonesia

## ABSTRACT

**Introduction:** Development is the changes in physical growth of a child. It also includes the changes in the child's social, emotional, behaviour, thinking and communication skills. Development is the key phenomena which control the body structure and functions through gross motor skills, fine motor skills, language, and social personalities. As a result of Developmental delay or Global Development Delay a child takes longer to reach certain development milestones than other children in their age. This is related to learning to walk or talk, movement skills, learning new things and interacting with others socially and emotionally. If there are any developmental disorders in children, it will result in several possibilities, namely delays in children's speech, delays in general psychomotor development, sensory, neurological disorders for hearing, Down syndrome autism. This study aimed to determine the relationship between psychosocial stimulation and the development of toddlers aged 1-3 years. **Methods:** The research was conducted in October 2019 - February 2020 in the Public Health Centre in Padang, Indonesia with population of all mothers who have toddlers aged 1 - 3 years. Selection of sampling was consecutive sampling method with a minimum sample of 65 respondents. **Results:** Based on the results of the study, it was found that some respondents received less psychosocial stimulation, namely as much as 46.2%, and toddlers aged 1-3 years experienced developmental disorders as much as 18.4%. Based on the results of statistical tests, it can be said that toddlers who did not receive sufficient psychosocial stimulation might experience the development delay with chance of 0.600 times greater than toddlers who are good getting psychosocial stimulation. **Conclusion:** The analysis of results shows that the value of  $p = 0.029$  ( $P \leq 0.05$ ), means that there is a significant influence between psychosocial stimulation on the development of toddlers aged 1 - 3 years.

**Keywords:** Stimulation, Psychosocial, Development, Toddler

## Corresponding Author:

Nita Ariani, M.Kep

Email: nitaariani1974@gmail.com

Tel: +6281371299000

## INTRODUCTION

Children are the utmost significant resource for future growth. The essential period for growth and development of children is at toddler age (under five years). Optimal growth and development can be achieved if the child is healthy. The first three years is very sensitive short period of life cycle and cannot be regained, so the period is called the "golden period" or the "window of opportunity" (1).

Children's growth and development leads to the development of body structure and functions which leads to the advancement of the motor skills, fine motor skills, language, and social personalities. The development process in children is related with the growth of central nervous system which in turn affects few body functions,

such as development of the neuro-muscular system, the ability to speak, emotion, and socialize (2).

If there are developmental disorders in children, it will result in several possibilities, namely delays in children's speech, sensory, neurological disorders for hearing, Down syndrome, and autism. The prevalence of child development disorders has been found in more than 250 million children under five in low and middle-income countries (3).

Genetic and environmental factors influence optimal child development. Environmental factors which positively influence children's development are necessary to fulfill specific basic needs. These basic needs are grouped into three groups, namely foster care needs (physical-biomedical needs), compassion needs (emotional needs and affection), and teasing needs (stimulation needs) (2).

One of the methods adopted to improve development in children is psychosocial stimulation, which is a

psychosocial environmental factor. Psychosocial stimulation is the key to the child's learning process which fasten the child's development and is achieved through education and training in the form of play activities. Through psychosocial stimulation, children can control and coordinate their muscles with the involvement of feelings of emotions and thoughts so that children get various life experiences. Stimulation will be more effective if the stimulation is according to the child's needs depending on the developmental stage (4). Psychosocial stimulation is needed to sharpen child development which is important for affection/emotion and to increase the bond between mother and child. Strong affection will support the stimulation process that fastens the child's development. The interaction between the environment and stimuli can help in brain development and in constructing neural structures that can improve development in children. Children who get a lot of targeted stimulation will develop faster than children who does not receive stimulation (3).

Wong et.al shows a relationship between stimulation and the development of children aged 4 - 5 years (5). Psychosocial stimulation is a psychosocial environmental factor affects the improving of toddler's development. Psychosocial stimulation is the main factor in child's learning process through education and training in play activities (6). Child development occur according to age either through stimulation directly received from parents; or other family members or it can also be through playing tools, socialization with adults and peers in the neighborhood (7).

Previous studies showed empowerment of family's economy through the development of family's nutrition portfolio is necessary for toddler's growth (8). Screening or early detection of development is necessary to identify possible developmental disorders so that diagnosis and recovery can be carried out at earlier stages of development. For this reason, developmental screening uses standardized methods/tools such as the Pre-Development Screening questionnaire for the assessment of child development (9). The research objective was to determine the effect of psychosocial stimulation on toddlers aged 1 - 3 years.

## MATERIALS AND METHODS

This research is a comparative study with a cross-sectional design to determine the effect of psychosocial stimulation on the development of toddlers aged 1-3 years. The research was conducted from October 2019 - February 2020 in the Public Health Center in Padang. This study's population of mothers who have toddlers aged 1 - 3 years in the Public Health Center's working area in Padang City. Selection method was consecutive sampling method used to obtain a minimum sample of 65 respondents. The data analysis technique used is the Chi-Square test if it meets the requirements; if it does

not meet the requirements, an alternative test is used, namely the Fisher test or Kolmogorov-Smirnov test.

The present study has been ethically approved by Research Ethics Committee, Faculty of Medicine, Andalas University, Padang, Indonesia, vide reference no. 413/KEP/FK/2019 dated 20th May 2019.

## RESULTS

The frequency distribution of psychosocial stimulation in toddlers aged 1-3 years can be seen in table I. Based on table 1, it is found that some respondents receive proper psychosocial stimulation less, namely as much as 46.2%.

**Table I: Frequency distribution of psychosocial stimulation**

Psychosocial Stimulation	n	%
Good	35	53.8
Not good	30	46.2
Total	65	100

The results of the research on the frequency distribution of infant development by measuring the Developmental Pre-Screening Questionnaire is shown in table II. The results of developmental examinations for toddlers aged 1 - 3 years using the Developmental Pre-Screening Questionnaire showed that a small proportion of toddlers aged 1 - 3 years experienced developmental disorders as much as 18.4%.

**Table II: Toddler development by measuring the Developmental Pre-Screening Questionnaire**

Toddler Development	n	%
Suspect (developmental disorders)	12	18.4
Normal	53	81.6
Total	65	100

Table III shows the effect of psychosocial stimulation on the development of toddlers aged 1 - 3 years. Toddlers who received adequate psychosocial stimulation experienced normal toddler development at 51%. Meanwhile, the toddlers who received inadequate psychosocial stimulation had the most developmental disorders of the toddlers, at 33.4%.

Based on the results of statistical tests, it was obtained that the OR value = 0.600 which means that toddlers who receive enough psychosocial stimulation have the opportunity to experience the development which is 0.600 times greater than toddlers who does not receive enough psychosocial stimulation. The analysis results showed that the value of  $p = 0.029$  ( $p \leq 0.05$ ), which means that there is a significant influence between psychosocial stimulation on the development of toddlers aged 1 - 3 years.

**Table III: The effect of psychosocial stimulation on the development of toddlers aged 1-3 years**

Psychosocial Stimulation	Toddler Development				Total (%)		<i>p</i>	OR
	Developmental Disorders		Normal		N	%		
	N	%	n	%				
Not Good	4	33.4	26	49	30	46.2	0.029	0.600
Good	8	66.6	27	51	35	53.8		
Total	12	100	53	100	65	100		

## DISCUSSION

Stimulation in children can be provided through activities (like play activities and others) to stimulate the necessary abilities of children aged 0-6 years to grow and develop optimally. Children's necessary abilities stimulated by directed stimulation are gross motor skills, fine motor skills, speech and language skills, and personal - social skills. Every child must receive routine stimulation as early as possible and must be continued by the mother and father who are the closest people to the child or maybe by child caregiver, other family members, and community groups in their respective households and their daily life (6).

This study's results are comparable to the research results conducted by Andrew *et.al* (1), which explained developmental disorders as much as 8.0% in children aged 3-72 months. Disrupted development can result in the emergence of several possibilities, namely delays in children's speech caused by Global Delay Development (delays in general psychomotor development), sensory, neurological disorders for hearing, down syndrome, and autism (5).

According to Freema *et al.*, (10), several factors influence children's growth and development, including psychosocial stimulation and environmental factor that occurs in postnatal phases. Environmental factors have a positive influence on children's growth and development, it is necessary to fulfill the basic needs of children, including foster care needs (physical-biomedical needs), compassion needs (emotional needs and affection), and teasing needs (stimulation needs).

Psychosocial stimulation is the key to the development of the child's learning process through education and training in play activities. Through psychosocial stimulation, children can control and coordinate their muscles with the involvement of feelings and emotions along with thoughts so that children get various life experiences. Giving stimulation will be more effective if attention is given to the child's needs according to the stage of development. Stimulation in children increases gross motoric activities which involve fine motor skills, language, and social personalities such as walking, holding hands, picking up small objects, imitating sounds, eating alone, and so on, depending on the developmental tasks at each age stage (6).

environmental factor that affects the sharpening of toddler's development. Psychosocial stimulation is the key to the child's learning process through education and training in play activities. Through psychosocial stimulation, children can control and coordinate their muscles with the involvement of feelings and emotions along with thoughts so that children get various life experiences. Giving stimulation will be more effective if attention is given to the child's needs according to the stage of development. Stimulation in children increases gross motoric activities which involve fine motor skills, language, and social personalities such as walking, holding hands, picking up small objects, imitating sounds, eating alone, and so on, depending on the developmental tasks at each age stage (6).

Psychosocial stimulation will also fulfill affection / emotional needs and increase the bond between mother and baby. Strong affection will support the stimulation process that stimulates the baby's development. The interaction between the environment and stimuli can help develop the brain in constructing neural structures that can improve development in children (8).

This study's results are comparable to another research (11), which shows a significant relationship between family stimulation and the development of children aged less than three years. This study's results are also confirmed by other research work (3) which shows that the influence of stimulation  $p = 0.000$  ( $p \leq 0.05$ ) on child development. Likewise, another research shows that there is a significant relationship between maternal knowledge about early stimulation  $p = 0.000$  ( $p \leq 0.05$ ) and motor development in infants aged 6-24 months. The lower the mother's knowledge about early stimulation, the child has a 4,950 times risk of experiencing motor development delays (11).

## CONCLUSION

From the present research study, it is clear that a small proportion of toddlers aged 1 -3 years, experience developmental problems as seen with the help of Developmental Pre-Screening Questionnaire measurement. So, it can be concluded that there is an effect of psychosocial stimulation on the development of toddlers aged 1-3 years.

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Psychosocial stimulation is a psychosocial

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