

The Relationship of Mother's Self Efficacy with Cognitive Development and Age of Stunting Children in the Area of Kalirungkut Puskesmas City, Surabaya

Diyah Arini^{1*}, Faridah¹, Indah Nuraini²

¹Pediatric Nursing Department, Sekolah Tinggi Ilmu Kesehatan Hang Tuah Surabaya, Jawa Timur 60244, Indonesia

²Lincoln University College, 47301 Petaling Jaya, Malaysia

*Corresponding Author's Email: diyaharini@stikeshangtuah-sby.ac.id

ABSTRACT

Background: Stunting can cause cognitive loss disorders. High and low self-efficacy of the mother can affect the cognitive development of the child. Cognitive processes are associated with adequate levels of intelligence of a person with a variety of interests. High and low self-efficacy of the mother can affect the cognitive development of the child. **Objective:** This study aims to find out the relationship of maternal self-efficacy with cognitive development in stunting children of toddler age in the Puskesmas Kalirungkut area of Surabaya. **Methods:** This study uses observational method with cross sectional research approach. The population of this study is mothers with stunting children of toddler age in the Kalirungkut Puskesmas area of Surabaya, sampling techniques using simple random sampling and a sample of 56 respondents. Instruments used on independent self-efficacy questionnaire variables; instruments used on dependent variables of capture scale observation sheets. **Results:** The data analysis used in this study is spearman's rho test with p -value $(0.000) < \alpha (0.05)$ means there is a relationship between maternal self-efficacy and cognitive development of the child. **Conclusion:** Mothers who have low self-efficacy on average do not have the will to provide healthy nutrition and physical activity for their child. Meanwhile, if the self-efficacy of the mother is high, it will increase the confidence of the mother in caring for and nurturing the child well. The implications of this research are so important for mothers to have a high sense of confidence in parenting so that the growth and development of a child can be optimal.

Keywords: *Child Stunting; Self-Efficacy; Cognitive Development of Children*

INTRODUCTION

Many factors cause stunting in children. The direct causes of stunting are nutritional intake and the presence of infectious diseases, while the indirect causes are breastfeeding and complementary feeding, lack of parental knowledge, economic factors, poor health services, and many other factors (Yanti *et al.*, 2020). Cognitive ability is a thought process, namely the ability of individuals to relate, assess, and consider an event or event. Cognitive processes are related to the level of intelligence (intelligence) that is adequate for a person with various interests, especially as indicated by ideas and learning. Mothers' high and low self-efficacy that can affect children's cognitive development include mothers' knowledge, mothers' attitudes, and skills in

parenting (Fitriyah & Rachmahana, 2020). Parenting patterns are all forms and processes of interaction that occur between parents and children and can have an influence on the child's personality development (Syahrul & Nurhafizah, 2021). Low levels of self-efficacy or mothers' lack of confidence in caring for children are also caused by lower socioeconomic status groups, which generally experience a lack of adequate material resources, such as difficulty eating, housing instability, and the absence of health insurance. The existence of this economic pressure makes it difficult for parents to meet the needs of their families, especially the needs of their children and is often found to be the main obstacle for parents to carry out parenting tasks for their children with full attention (Wandani *et al.*, 2021).

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Thus, if the mother's maternal self-efficacy is low, nutrition will also be low, and healthy physical activity for the baby. Conversely, if the mother's maternal self-efficacy is high, it will be able to increase the mother's confidence in caring for and nurturing the baby well. It is so important for mothers to have a high sense of confidence in caring for a child and provide stimulation to monitor cognitive development in children (Vega *et al.*, 2019). Things that can increase a mother's self-efficacy can also be influenced by the involvement of a supportive father to work together in terms of childcare (Putri Dena Laksmi *et al.*, 2018).

The process of growth and development begins in infancy, and this is a very important process, because at this time the process of growth and development determines the future of the baby physically, mentally, and behaviorally. Growth and development at each age stage are not always the same, depending on heredity, nutritional consumption, parental and adult treatment, and the environment (Hapsari *et al.*, 2019). Stunting is a chronic nutritional deficiency problem caused by inadequate nutritional intake for a long time due to feeding that does not match nutritional needs. Stunting can cause cognitive development disorders in children, so proper parenting is needed (Yadika *et al.*, 2019). The knowledge and skills of the mother will affect her confidence in carrying out the parenting role of the child, which is called maternal self-efficacy. The results of a preliminary study on mothers with stunting children in the Kalirungkut Public Health Center, Surabaya, found that children had cognitive developmental disorders.

As many as 22.9%, or equivalent to 154.8 million children in the world, suffer from stunting. The prevalence of stunting in Indonesia is 30.8%. For East Java Province, which is 42.6% (Rahmadhita, 2020). Based on the results of data from the Surabaya City Health Office (2019) in the Kalirungkut Public Health Center Surabaya, the prevalence of stunting in infants is 19.98%. From the results of observations carried out on 10 mothers who have toddler-age children in the Kalirungkut Health Center Surabaya area, 7 children (70%) are normal, while 3 children (30%) are children with cognitive development disorders.

METHODOLOGY

This research method is an observational research design with a cross-sectional approach, using a probability sampling technique with simple random

sampling. This research was conducted on May 29–June 12, 2021, in the Kalirungkut Health Center Surabaya area with a total sample of 56 mothers who have toddler-age children in the stunting category. The relationship between variables using Spearman's Rho Test. The instrument used in this research is the blue questionnaire print for self-efficacy and observation sheets for cognitive development.

Ethical Statement

This research has been ethically approved by Health research ethics commission STIKES Hang Tuah Surabaya with number PE/28/VI/2021/KEPK/SHT on January, 2021.

RESULTS

1. Demographic Data

Table 1: Characteristics of Respondents Based on Age

Age	Frequency (f)	Percentage (%)
< 20	0	0
20 – 29	22	40
30 – 39	26	46
40 – 49	8	14
>50	0	0
Total	56	100

From table 1 shows that the mother's age of 56 respondents, the average age of mothers aged 30-39 years were 26 respondents (46%), aged 20-19 years were 22 respondents (39%), aged 40-49 years were 8 respondents (14%).

2. The characteristic of Mother's Education

Table 2: Educational Characteristics of Mothers

Education	Frequency (f)	Percentage (%)
Elementary	6	10
Junior High School	10	17
Senior High School	34	60
University	6	10
Total	56	100

From table 2 shows that the mother's education of 56 respondents, the average mother with the latest high school education is 34 respondents (60%), the last education is junior high school as many as 10 respondents (17%), elementary school as many as 6

respondents (10%), the last education is higher education as many as 6 respondents (10%).

3. The Characteristic of Mother's Job

Table 3: Occupational Characteristics of Mothers

Education	Frequency	Percentage (%)
Housewife	44	78
Private Company	3	5
Civil Servants	3	5
Others	6	10
Total	56	100

From table 3 shows that the mother's occupation of 56 respondents, the average mother works as a housewife as many as 44 respondents (78%), other work as many as 6 respondents (10%), working as private as many as 3 respondents (5%), working as civil servants as many as 3 respondents (5%), other work as many as 6 respondents (10%).

Special Data

4. Self-Efficacy of Mothers

Table 4: Self-Efficacy of Mothers

Self-Efficacy	Frequency (f)	Percentage (%)
Low	39	69.6
High	17	30.4
Total	56	100

Based on table 4, data obtained from mothers who have low self-efficacy as many as 39 respondents (69.6%) and mothers who have high self-efficacy as many as 17 respondents (30.4%).

5. Cognitive Development of Toddler

Table 5: Cognitive Development in Stunting Children

Cognitive	Frequency (f)	Percentage (%)
Suspect	41	73.2
Normal	15	26.8
Total	56	100

Based on table 5, data on cognitive development in stunted children were 41 children (73.2%) with suspected, and 15 children (26.8%) normal.

6. The Relationship of Self Efficacy with Cognitive Development in Stunting Children of Toddler Age

Table 6: The Relationship of Self Efficacy with Cognitive Development in Stunting Children of Toddler Age

Self Efficacy	Cognitive				Total		p Value
	Suspect		Normal		f	%	
	f	%	f	%			
Low	39	100	0	0	39	100	P=0.000
High	2	11.76	15	88.24	17	100	
Total	41	73.2	15	26.8	56	100	

Based on table 6, it shows that through the Spearman's Rho test using the SPSS 20 application, the p -value = 0.000 < (0.05) means that there is a relationship between mother's self-efficacy and children's cognitive development on a language scale. The data shows that the mother's low self-efficacy with children's cognitive development, as many as 39 respondents (100%) have suspicious results. Mother's high self-efficacy with children's cognitive development, as many as 2 respondents (11.76%) had suspicious results and 15 respondents (88.24%) had normal results.

DISCUSSION

Mother's Self Efficacy in the Kalirungkut Public Health Center, Surabaya

The researcher's assumption explains that the mother's level of self-efficacy or self-confidence can be influenced based on the mother's last education. The results of the crosstab test between the mother's last education and the mother's self-efficacy were that 24 people (70.6%) had low self-efficacy with a high school education, while 6 people (100.0%) had high self-efficacy. The last education was for college mothers. This explains that education also affects the mother's level of self-efficacy. The lower the mother's education, the average person has a low level of self-efficacy, while the higher the mother's education, the higher the level of self-efficacy. This study is in line with research on the relationship between self-efficacy and healthy behavior. According to Ayotte *et al.*, (2010), individuals who have high self-efficacy tend to have healthier behavior, and conversely, individuals who have low self-efficacy are

more likely to have unhealthy behavior.

Cognitive Development in Stunting Children of Toddler Age in the Kalirungkut Public Health Center Surabaya

Researchers assume that a mother's work can affect children's cognitive development. From the results of the crosstab test between mother's work and children's cognitive development, 33 people (75.0%) are housewives who have children with suspected cognitive development, this explains that mother's work can affect children's cognitive development. Mothers doing activities at home will feel that the child will grow by itself and the mother has no intention to provide stimulation so that the child can have good cognitive development (Arini *et al.*, 2020). This study is in line with previous research that stimulation is one of the factors that are directly related to cognitive development because stimulation has a positive effect on children's growth and development (Hastuti *et al.*, 2010).

The Relationship of Mother's Self-Efficacy with Cognitive Development in Stunting Children of Toddler Age in the Kalirungkut Public Health Center Surabaya

According to the researcher's assumption, it is very important for a mother to have a high level of self-confidence or self-efficacy in parenting, especially in monitoring and stimulating cognitive development in children. If the mother's self-efficacy is low, the average nutrition given to the child will be less and can affect the child's cognitive development. Conversely, if the mother's self-efficacy is high, it will be able to increase the mother's confidence in caring for and raising children properly according to the stages of development (Gumelar & Tangpukdee, 2022). Because mothers' beliefs about how well they are capable of being mothers are a necessary component to understanding their beliefs, actual parenting behavior, and interactions between mother and child because the impact of these parenting beliefs has an impact on the health and development of children. According to previous

research based on cognitive processes, self-efficacy is able to regulate human cognition. Perceived strong self-efficacy will make a person set the best goals and will try to stay committed to those goals (Kurniawati & Kasih, 2022). This study is in line with previous research that suggests the education and experience of parents in child care will affect their readiness for parenting roles. A person's level of knowledge affects his confidence. Then the job also affects the income earned. Adequate income will support the growth and development of children. An adequate level of income will provide a greater possibility for mothers to provide for all the needs of children, both primary and secondary, so as to facilitate maximum child development (Rahmi & Husna, 2019).

CONCLUSION

Identification of the self-efficacy of mothers who have stunting children at the age of toddlers in the Kalirungkut Health Center Surabaya. Shows that from 56 mothers, most of them have low self-efficacy as many as 39 respondents (69.6%) and mothers who have high self-efficacy are only 17 respondents (30.4%). Recognizing the cognitive development of stunting toddlers in the Kalirungkut Public Health Center, Surabaya. Shows that of the 56 stunting children at toddler age, most of them have a suspect cognitive development of 41 children (73.2%), and only 15 children (26.8%) with normal development. There is a relationship or correlation if the value of $\alpha = <0.05$. The results obtained show that $\rho = 0.000$, it can be concluded that there is a relationship between maternal self-efficacy and cognitive development in stunting toddlers in the Kalirungkut Health Center area of Surabaya.

Conflict of Interest

The authors declare that there is no conflict of interest.

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