Analysis of Knowledge and Mother's Ability in Stimulating the Development of Children Aged 18-23 Months

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ABSTRACT

Most parents see development from what is visible, so they often ignore developments that are not visible, such as social development of independence so that delays are often not realized if parents' knowledge is low about child development. This study aims to determine the relationship between maternal knowledge about child development stimulation and development stimulation abilities. Using a correlation analytic design with a cross-sectional approach. The population in this study were all mothers who took care of their own children aged 18-23 months in Bandung Village, Gedeg District, Mojokerto Regency in February 2016, with a purposive sampling technique and 35 respondents were obtained. Data collection used questionnaires and checklists. Data analysis used the Spearman Rho Test. The results showed that most respondents had sufficient knowledge about child development stimulation (51.4%) and almost half of respondents had moderate stimulation abilities (45.7%). There is a relationship between knowledge and mother's ability in stimulating child development aged 18-23 years in Bandung Village, Gedeg District, Mojokerto Regency, as evidenced by the results of the Spearman Rho Test, p value = 0.000 or <0.05 so that H1 is accepted. The better the mother's knowledge about child development stimulation, the higher the mother's ability to carry out stimulation, because the basis of individual behavior is knowledge. Mothers are expected to seek as much information as possible about child development stimulation and learn how to apply it to children.

I. Introduction

Childhood is the golden age for child development (Ministry of Health of the Republic of Indonesia, 2015). Age 0-3 years is the golden age period and is right for child development which includes physical, cognitive, emotional and social aspects. During this golden age, children have an extraordinary desire to learn, this is because during this period there is brain development known as the brain growth spurt period where the brain experiences very rapid development so that child development stimulation is very appropriate at this age (Soetjiningsih & Ranuh, 2014). Proper stimulation will stimulate the toddler's brain so that the development of motor skills, speech and language, socialization and independence in toddlers takes place optimally according to the child's age (Ministry of Health of the Republic of Indonesia, 2015). The number of toddlers in the world according was around 686 million children. The number of toddlers in Indonesia in 2013 was 23,729,583 children and the number of toddlers in East Java Province was 2,843,152 children (11.98%). Based on data from the Basic Health Research, it showed that only 65.9% of toddlers had a KIA book, while in East Java itself around 81% of toddlers had a KIA book (Ministry of Health of the Republic of Indonesia, 2015). Data from SDIDTK Mojokerto Regency in 2015 showed that the number of toddlers aged 12-59 months was 16,673 children.

The results of a preliminary study in Bandung Village, Gedeg District, Mojokerto Regency on October 7, 2015 on 10 mothers who raised their own children aged 18-23 months showed that 1 child

(10%) was still unable to walk, 4 children (40%) had speech and language disorders, 1 child (10%) had fine motor disorders, and 4 children (40%) were normal. This shows that there are still many parents who have not been able to provide developmental stimulation so that their children experience developmental delays.

One of the factors that affect child development is stimulation. Stimulation is stimulation and training of children's intelligence that comes from the environment outside the child. Parents should be aware of the importance of providing stimulation for child development. Stimulation is important in child growth and development. Children who receive targeted and regular stimulation will develop faster than children who lack/do not receive stimulation (Soetjiningsih & Ranuh, 2014). Lack of stimulation can cause deviations in children's growth and development and even permanent disorders. Some developmental disorders that are often found are speech and language disorders, cerebral palsy, Down syndrome, short stature, autism disorders, mental retardation, and attention deficit hyperactivity disorder (ADHD) (Ministry of Health of the Republic of Indonesia, 2015).

Efforts to improve mothers' knowledge and abilities in stimulation are by providing health education about child growth and development. Health education aims to change the attitudes and behavior of individuals, families, groups, communities in the field of health as something valuable and useful in the eyes of the community and also to form healthy behavior and optimal health status in individuals, families, groups and communities in accordance with the concept of healthy living, both physically, mentally and socially. The media has an important role in conveying information, the existence of new information about something that provides a new cognitive basis for the formation of behavior towards it (Sari, 2013). Based on the background above, the researcher is interested in researching the relationship between knowledge and mothers' abilities in stimulating the development of children aged 18-23 months in Bandung Village, Gedeg District, Mojokerto Regency.

The general objective of this study was to determine the relationship between knowledge and mothers' abilities in stimulating the development of children aged 18-23 months in Bandung Village, Gedeg District, Mojokerto Regency.

II. Methods

The design of this study is a quantitative study using an analytical survey method. The approach used in this study is a cross-sectional method. The population in this study were all mothers who raised their own children aged 18-23 months in Bandung Village, Gedeg District, Mojokerto Regency in February 2016, sampling was carried out by purposive sampling and 35 respondents were obtained. The independent variable in this study is knowledge. The dependent variable in this study is the mother's ability to stimulate the development of children aged 18-23 months. The instrument used in this study was a questionnaire to measure maternal knowledge, with categories of good, sufficient, or lacking, and a checklist to assess the mother's ability to stimulate the development of children aged 18-23 months. This research was conducted from March 5-31, 2016 by means of the researcher conducting the research during the Integrated Health Post (Posyandu).

The researcher explained the purpose and benefits of the research to prospective respondents and then asked for approval by signing an informed consent. After agreeing to become respondents, the researcher gave a questionnaire about knowledge and conducted observations of the mother's ability to stimulate the development of children aged 18-23 months with a time allocation of 30 minutes, then collected the questionnaires again for data processing. Data analysis using the Spearman Rho test because the purpose of the research is correlational, there are 2 variables, the scale of the variable data analyzed is an ordinal scale.

III. Results and Discussion

The results presented must be sequential from the main results to the supporting results. Use units of measurement based on applicable international standards. You can add diagrams, tables, pictures, and graphs by completing them with narration.

1. The Respondent Characteristics

The following table, table 1, shows the frequency distribution of Respondents Based on Characteristics in Bandung Village, Gedeg District, Mojokerto Regency in March 2016

Table 1. The Characteristics Respondents

No	Characteristics	Frequency	Percentage (%)
1	**Mother's Age**		
	< 20 years	4	11.4
	20-35 years	26	74.3
	> 35 years	5	14.3
2	**Education**		
	Elementary (Elementary, Middle School)	4	11.4
	Middle School (SMA)	25	71.4
	Higher (College)	6	17.1
3	**Work**		
	Work	14	40.0
	Doesn't work	21	60.0
4	**Parity**		
	Primipara	6	17.1
	Multipara	28	80.0
	Grand multipara	1	2.9
5	**Information about Child Development Stimulation**		
	Never Got Information	8	22.9
	Health workers	3	8.6
	Non Health Workers	6	17.1
	Mass media	18	51.4

Based on the data in Table 1, it shows that most respondents are aged 20-35 years, namely 26 people (74.3%). Respondent characteristics based on education, most respondents have secondary education (high school) namely 25 people (71.4%). Respondent characteristics based on occupation, most respondents are unemployed, namely 21 people (60%). Respondent characteristics based on parity, almost all respondents are multiparous, namely 28 people (80%). Respondent characteristics based on information about child development stimulation, most respondents get information about child development stimulation from the mass media, namely 18 people (51.4%).

2. The Variable Characteristics

The Frequency Distribution of Respondents Based on Variable Characteristics in Bandung Village, Gedeg District, Mojokerto Regency in March 2016

Table 2. The frequency respondents based on variable

No	Variables	Frequency	Percentage (%)
1	**Knowledge**		
	Not enough	9	25.7
	Enough	18	51.4
	Good	8	22.9
2	**Developmental Stimulation Ability**		
	Very high	3	8.6
	Tall	5	14.3
	Currently	16	45.7
	Low	11	31.4
	Very low	0	0

Based on the data in Table 2, it shows that most respondents have sufficient knowledge about child development stimulation, namely 18 people (51.4%) and almost half of the respondents have moderate stimulation abilities, namely 16 people (45.7%).

3. Ceoss Tabulation Between Variable

The tabulation Between vvariable Cross Table of Knowledge with Developmental Stimulation Ability in Children Aged 18-23 Months in Bandung Village, Gedeg District, Mojokerto Regency in March 2016

Table 3. The Cross Tabulation

Level of knowledge	Developmental stimulation capabilities										Total	
	Very high		Tall		Currently		Low		Very low			
	f	%	f	%	f	%	f	%	f	%	f	%
Good	3	33.3	5	55.6	1	11.1	0	0	0	0	9	100
Enough	0	0	0	0	15	83.3	3	16.7	0	0	18	100
Not enough	0	0	0	0	0	0	8	100	0	0	8	100
Total	3	8.6	5	14.3	16	45.7	11	31.4	0	0	35	100

			Developmental stimulation capabilities
Spearman's rho	Knowledge	*Correlation Coefficient*	0.895*
		Sig. (2-tailed)	0,000
		N	42

*. Correlation was significant at the 0.05 level (2-tailed).

Based on the data in Table 3, it shows that the majority of respondents who have good knowledge, their development stimulation ability is high, namely 5 out of 9 people (55.6%), almost all respondents who have sufficient knowledge, their development stimulation ability is moderate, namely 15 out of 18 people (83.3%), and all respondents who have less knowledge, have low development stimulation ability, namely 8 out of 8 people (100%). The results of the Spearman Rho test show that the p value = 0.000 or <0.05 so that H1 is accepted, which means that there is a relationship between knowledge and the mother's ability to stimulate the development of children aged 18-23 years in Bandung Village, Gedeg District, Mojokerto Regency.

4. Mothers Knowledge about Child Development Stimulation

Based on the results of a study conducted on 35 mothers in Bandung Village, Gedeg District, Mojokerto Regency, most of them had sufficient knowledge about child development stimulation, namely 18 people (51.4%). According to Pramusinta, et al., 2003 in Munawaroh, et al., 2015, a person's behavior is influenced by several factors, one of which is knowledge. Knowledge plays a very important role in forming a person's attitude. Increasing knowledge is always followed by improved behavior in providing adequate development stimulation and the large influence of other external factors such as the role of a good child environment.

The results of this study indicate that mothers' knowledge about child development stimulation is mostly sufficient. According to the researcher's opinion, this is because mothers lack information about child development stimulation, mothers only rely on experience and seeing their children can do the same things as other children means that their children develop normally like other children. Mothers who have good knowledge are because some mothers have received information about child development stimulation so they can answer questions correctly, while mothers who have poor knowledge are because mothers have very little information known about child development stimulation. Knowledge is also influenced by factors such as age, education, experience and sources of information about child development stimulation.

Based on the data of the characteristics of the respondents, it shows that most mothers are aged 20-35 years, namely 26 people (74.3%). According to Wawan & Dewi, (2010), the older the age, the level of maturity and strength of a person will be more mature in thinking and working. In terms of mother's trust, someone who is more mature is trusted than someone who is not yet mature. Because, this is a form of experience and maturity of her soul. The researcher's opinion, that based on the age of the mother should have had good experience and maturity of soul, so that they are able to answer questions correctly even though they do not know specifically about child development stimulation, but if asked about something general like what a child of her age should be able to do, then the mother can answer by referring to her child's abilities**.** Based on the respondent characteristics data, it can be seen that most mothers have secondary education (high school), namely 25 people (71.4%). Mubarok, Walid (2007), stated that education is guidance given by someone to another person regarding something to be understood.

The higher a person's level of education, the easier it is for them to understand in receiving various sources of information so that the more knowledge they have. Conversely, the lower a person's level of education, the more it will hinder the development of a person's attitude towards receiving new information that is introduced. In this study, mothers have good knowledge because they are highly and secondary educated. According to the researcher's opinion, this is because someone with secondary and higher education already has sufficient ability to absorb information well, so they can think better than respondents with basic education, although not all information about health is provided in the learning curriculum in formal education including stimulation of child development, especially mothers with basic education. Mothers with basic education make mothers less able to absorb health information well, so that the mother's knowledge will be lacking.

Based on the data of the characteristics of the respondents, it shows that almost all mothers are multiparous, namely 28 people (80%). According to Fitriani (2015), knowledge can be obtained from personal experience or the experience of others. This experience is a way to obtain the truth of knowledge. According to the researcher's opinion, multiparous mothers already have experience in seeing the growth and development of their children before, so that several questions about child development can be answered correctly by the mother. Experience in caring for children before can be used as a basis for the mother's knowledge about child development stimulation, even though the mother herself does not understand what child development stimulation is, but when asked about what children aged 8-23 months should be able to do, then by looking at her child's abilities, the mother can answer the questions in the questionnaire.

5. Mothers Ability to Stimulate Child Development

Based on the results of a study conducted on 35 mothers in Bandung Village, Gedeg District, Mojokerto Regency, it showed that almost half of them had moderate stimulation abilities, namely 16 people (45.7%). Early stimulation is important for mothers to stimulate child

development, because the first 3 years of a child's age are the peak period of development, where the child's brain has 2 times more synapses than the adult brain (Dyer, 1999 in Setyowati, 2010). According to Fitriani (2015), the mother's ability to stimulate is influenced by age, information, knowledge, education, and work.

Based on the data of the characteristics of the respondents, it shows that most mothers are aged 20-35 years, namely 26 people (74.3%). According to Fitriani (2015), middle-aged parents will find it easier to find and receive information. Parents also find it easier to remember information that was obtained during adolescence and young adulthood. Middle-aged people have a strong ability to succeed, they will reach their peak at this age. The researcher's opinion is that the source of knowledge is information, age only makes it easier for someone to receive information, not to increase knowledge.

Respondent characteristics based on education show that most mothers have secondary education (high school), namely 25 people (71.4%). According to Mubarok, Walid (2007) in Fitriani (2015), education is guidance given by someone to another person regarding something to be understood. The higher a person's level of education, the easier it is for them to understand in receiving various sources of information so that the more knowledge they have. Conversely, the lower a person's level of education, the more it will hinder the development of a person's attitude towards receiving new information that is introduced. According to the researcher's opinion, someone with higher education allows them to more easily absorb information and apply it in the form of behavior, but good knowledge does not always lead to good abilities because the ability to stimulate is in the form of practical actions that must be carried out / applied in stimulating child development.

Characteristics of mothers based on occupation show that most respondents are unemployed, namely 21 people (60%). According to Fitriani (2015), the time needed for stimulation is quite a lot, so that mothers have the opportunity for stimulation. According to the researcher's opinion, parents who do not work can provide good stimulation because mothers have a lot of time to care for their children, including providing stimulation with a more intensive frequency. However, not all working parents do not have time with their children, because developmental stimulation can be done at any time, when working mothers have free time with their children, this stimulation can be done.

6. Relationship Between Knowledge and Mothers Ability in stimulating Child Develeopment

Based on the results of the Spearman Rho Test, the p value = 0.000 or <0.05 was obtained so that H1 was accepted, which means that there is a relationship between knowledge and the mother's ability to stimulate the development of children aged 18-23 months in Bandung Village, Gedeg District, Mojokerto Regency. According to Tamis-Lemonda, et al. (2002) in Sulistiyawati & Mistyca (2015), the mother's knowledge of child development greatly influences the mother's attitude and behavior to interact more with children and provide appropriate early stimulation so that it will indirectly affect the child's development.

The results of this study are in line with research conducted by Sulistiyawati & Mistyca (2015), on 56 mothers who have babies aged 9-12 months in the Cibeureum Health Center, Tasikmalaya City, in their study it was found that respondents who had good knowledge about infant growth and development were 9 people (75.0%) had a positive attitude (tendency to stimulate), and respondents who had less knowledge were 21 people (80.8%) had a negative attitude (tendency to avoid). Respondents who had knowledge or received information about toddler growth and development created the perception that this must be done, thus knowledge influenced the respondents' attitudes. This is reinforced by the results of the statistical test p value 0.000 and x2count 20.8 (> x2table = 5.991), meaning that there is a relationship between the level of maternal knowledge and attitudes towards infant growth and development 9-12 months at the Cibeureum Health Center, Tasikmalaya City.

In the author's opinion, the better the mother's knowledge about child development stimulation, the higher the mother's ability to carry out stimulation, because the basis of individual behavior is

knowledge, the better the knowledge, the better the ability possessed, however not all knowledge and ability run in balance, therefore it is better when the mother has gained knowledge about child development stimulation, it needs to be practiced / applied immediately in order to hone the mother's ability to stimulate child development.

Mothers who have sufficient knowledge, but their developmental stimulation ability is low because not all mothers can apply the theories they know in the form of actions, so even though mothers know that children aged 18-23 months should be able to do anything, it is not certain that mothers can apply how to stimulate their child's development. This can be caused by the mother's lack of experience in providing developmental stimulation or in terms of caring for babies before. Mothers who have less knowledge will have low stimulation abilities because knowledge is the basis of a person's actions. Mothers who do not know about child development stimulation will not be able to carry out stimulation properly because there is no basic knowledge that can be used as a provision for carrying out stimulation.

IV. Conclusion

Based on the research results and discussion, several conclusions can be drawn from this research, including:Most mothers have sufficient knowledge about child development stimulation, and almost half of mothers have low development stimulation abilities, and there is a relationship between knowledge and mothers' abilities in stimulating child development aged 18-23 months in Bandung Village, Gedeg District, Mojokerto Regency, which is proven by the results of the Spearman Rho Test, it was found that the p value = 0.000 or <0.05 so that H1 is accepted.

Therefore, mothers are expected to be active in seeking as much information as possible about child development stimulation and learning how to apply it to children, by accessing the internet from competent sources in the health sector, or asking health workers. And it is necessary to improve the role of health workers in providing health education to mothers, namely health education about the stages of child development according to age, types of development stimulation, and information about the importance of providing child development stimulation since toddlerhood to support the development and abilities of children. In providing health education, it can be through direct counseling, or through electronic media and social media.

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