RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND MOTHER'S KNOWLEDGE ABOUT STIMULATION, DETECTION AND EARLY INTERVENTION OF CHILD DEVELOPMENT (SDIDTK) WITH CHILD DEVELOPMENT IN CAMBAYYA URBAN VILLAGE

Sulastri[1], Hj. Ros Rahmawati[2], Hj. Rostiaty Natsir[3]
[1] Midwifery Student, Makassar Health Polytechnic of Ministry of Health
[2,3] Lecturer in Midwifery Department, Makassar Health Polytechnic of Ministry of Health
Corresponding author: ast00651@gmail.com, rosrahmawati@gmail.com

ABSTRACT

The first five years of life are a golden period , therefore mother's knowledge of stimulation according to age is needed, early detection and intervention of child development in order to achieve optimal growth and development. This study aims to determine the relationship between the level of education and maternal knowledge about SDIDTK with child development in Cambayya Village in 2019 with a cross sectional approach. The subjects of this study were mothers who had children aged 0-72 months. The sampling technique is proportional stratified sampling The statistical analysis used in this study is the chi-square statistic , with a level of confidence α = 0 , 05 . The results showed that the significance value of knowledge with growth p = 0,000 (p <0.05) with a coefficient value (Phi = 0.777), knowledge with development p = 0,000 with a coefficient (Phi = 0.556) while the significance value of education with growth p = 0.001 (p <0.05) with a coefficient (Phi = 0.374), education with development p = 0.022 (p <0.05) with a coefficient value (Phi = 0.304), so it can be concluded that there is a relationship between the level of education and mother's knowledge about SDIDTK with child development in Cambayya Urban Village. Therefore, it is expected that health workers routinely carry out counseling on the importance of early stimulation, detection and intervention of child development so that their knowledge increases and they can behave according to their knowledge to achieve optimal growth and development.

Keywords: Education, Knowledge, SDIDTK, Growth and Development

INTRODUCTION

Health development is part of efforts to build a complete human being, one of the efforts is taken since the child is still in the womb until the first five years of his life (*golden period*) because at that time the child's physical and abilities are developing rapidly. It tends to maintain its survival while improving the quality of life of children in order to achieve optimal growth and development, namely by getting good nutrition, adequate stimulation, and affordable quality services including detection and early intervention of developmental deviation (Ministry of Health, 2016).

Mother's role is very important to fulfill the basic needs of children consisting of ASUH, ASIH and ASAH so that children can grow and develop optimally both physically, mentally, emotionally and socially and have intelligence in accordance with their genetic potential (Soetjiningsih, 2012).

The stimulation, detection and early intervention activities of toddler growth and development are organized in the form of partnerships between families, cadres, and health workers and this activity is useful to detect early growth and development deviations in children so that children get appropriate treatment. This is also supported because of the lack of parental knowledge and stimulation given to children, as a result, it can cause deviations in child development and even permanent disturbances and the slow screening of children so it will be more difficult treatment given to children (Ministry of Health, 2014).

According to WHO (*World Health Organization)* disruption of child growth and development in Indonesia is a public health problem because it is still above 30%, based on data in 2017, toddlers in Indonesia around 11.7% reported experiencing developmental disorders in the form of intelligence disorders due to developmental disorders brain, hearing loss and motor impairment while growth disorders reached 29.2% consisting of 3.9% malnutrition, 13.8% malnutrition and pravelence stunting incidence of around 11.5%. So that the disruption of growth and development in children in Indonesia reaches 40.9% while in South Sulawesi around 38%, in Makassar around 34.6% (Riskesdas, 2018).

Data on Patingalloang Community Health Center on November 26, 2018 out of 309 children in Cambaya Sub-District who experienced developmental disorders as many as 10 children (3.2%), while those experiencing growth disorders were 76 children (24.5%) and for the scope of SDIDTK program implementation (Stimulation , Early Growth and Intervention Detection) has reached 65% and has not yet reached the indicator of SDIDTK success

which is around 90%

LITERATURE STUDY

The results of the research conducted by Ayu Yoniko Christiari, et al, were the Relationship of Mother Knowledge about Early Stimulation with Motor Development in Children aged around 6-24 months in Mayang District, Jember Regency with the results of bivariable analysis with a *Marginal Homogeneity* statistic obtained *p* = 0,000 <0.05 so It can be concluded that there is a meaningful relationship between mother's knowledge about early stimulation and children's motor development.

The results of a research conducted by Bintang Tantejo, et al, entitled the Relationship of Knowledge of Mother about Nutrition with Nutritional Status of Toddlers in the Work Area of Koto Kampar XIII Health Center in 2013 with the results of bivariable analysis with *Chi-square* statistical test obtained *p* = 0.047 <0.05 to sum up, there is a meaningful relationship between mother's knowledge about nutrition and the nutritional status of children in the work area of the Koto Kampar XIII Health Center in 2013.

METHODS

The type of research used in this study was an analytical survey through a questionnaire with a *cross sectional* approach. The research location was conducted in the Cambayya Village of Makassar City.

Sampling in this study was conducted using *proportional stratified random sampling technique* with a total sample of 76 respondents selected from members of the Mawar Posyandu in RW 1-6. Students must fulfill the inclusion criteria to be used as subjects in this study, namely the Mother in Cambayya Village who has children aged 0-72 months who are willing to be respondents and have a Healthy Towards Card of at least 3 consecutive visits. Education is the independent variable p and p What Knowledge Capital of stimulation, Detection and Early Intervention Growth (SDIDTK). The dependent variable is child development.

The instrument used in this study was a questionnaire to measure mother's knowledge about SDIDTK and Pre-Screening Questionnaire Development according to the age of the child

Data is processed with *Editing* , *Codding* , *Data Entry* , *Cleaning data entry* with SPSS version 22.0. Then it is presented in table and narrative forms. Analysis data was univariate and bivariate analysis.

RESULTS OF THE RESEARCH

Table 1
Frequency Distribution of Parent (Mother) Education Levels in Cambayya Village in 2019

Education	Frequency	Percentage (%)
High	31	40.8
Low	45	59.2
total	76	100

Based on Table 1, it shows the distribution table of parents (mothers) education level in Cambayya Village in 2019 of 76 respondents obtained data that there were 31 respondents (40.8%) who had highly educated and 45 respondents (59.2%) who had low education.

Table 2.
Frequency Distribution of respondents based on Mother's Knowledge about Stimulation, Detection and Early Intervention (SDIDTK) in Cambayya Village in 2019

Knowledge	Frequency	Percentage (%)
Enough	53	69.7
Less	23	30.3
total	76	100

Based on Table 2, it shows the table of distribution of mother’s knowlwdge about Stimulation, Detection and Early Intervention (SDIDTK) in Cambayya Village in 2019 of 76 respondents obtained data that there were 53 respondents (69.7%) who were enough knowledge and 23 respondents (30.3 %) who were less knowledge.

Table 3
Frequency Distribution Growth of Children based on Index BB / TB in Cambayya Village in 2019

Growth	Frequency	Percentage (%)
Appropriate	56	73.7
Inappropriate	20	26.3
total	76	100

Based on table 3, shows the growth distribution table of children in Cambayya Urban Village in 2019 of 76 respondents obtained 56 children (73.7%) whose growth was appropriate and 20 children (26.3%) whose growth was inappropriate

Table 4
Frequency Distribution of Child Development based on KPSP Interpretation in Cambayya Urban Village in 2019

Development	Frequency	Percentage (%)
Appropriate	67	88.2
Inappropriate	9	11.8
total	76	100

Based on table 4, shows the distribution table for the development of children in Cambayya Urban Village In 2019 of 76 respondents, 67 children (88.2%) had the right development and 9 children (11.8%) whose development was not appropriate.

Table 5
Relationship between Mother's Knowledge about Stimulation, Detection and Early Intervention of Child Development (SDIDTK) with Child Growth in Cambayya Urban Village in 2019

Knowledge	Growth				total		*p* value	Value of phi (μ)
	Appropriate		Inappropriate					
	n	%	n	%	n	%		
Enough	51	67.1	2	2.6	53	69.7		
Less	5	6.6	18	23.7	23	30.3	0,000	0.777
total	56	73.7	20	26.3	76	100		

Based on table 5 above, shows the relationship between mother's knowledge and child growth in Cambayya Urban Village of 76 respondents, as many as 51 respondents (67 , 1 %) whose knowledge ware enough and had appropriate growth, 2 respondents (2.6%) whose knowledge was enough and had growth inappropriate, as many as 5 respondents (6.6%) whose knowledge ware less and had appropriate growth, 18 respondents (23.7%) whose knowledge ware less and had inappropriate growth.

Based on the results of statistical analysis used SPSS version 21 , 0 with the *Chi-square* test obtained *he* value *p* = 0,000, α = 0.05 so that *p* <α, the research hypothesis (Ho) was rejected, meaning that there was a relationship between mother's knowledge about stimulation, detection and early intervention of child development with child growth in the Cambayya Urban Village in 2019. To assess the strength of the relationship between these variables were obtained the value of the *phi* coefficient (μ) = (0.777) it means that the relationship between the bell variables is strong which is equal to (77.7%).

Table 6
Relationship between Mother's Knowledge about Stimulation, Detection and Early Intervention of Child Development with Child Growth in Cambayya Urban Village in 2019

Knowledge	Development				total		*P* value	Value of phi (μ)
	Appropriate		Inappropriate					
	n	%	n	%	n	%		
Enough	53	69.7	0	0	53	69.7		
Less	14	18.4	9	11.8	23	30.3	0,000	0.556
total	67	88.1	9	11.8	76	100		

Based on table 6 above shows the relationship of knowledge of mothers with child development in the Cambayya Urban Village of 76 respondents as many as 53 respondents (69 , 7 %) whose knowledge was enough and had appropriate development, there were no respondents whose knowledge was enough and had inappropriate development, as many as 14 respondents (18.4%) whose knowledge was less and had appropriate development, 9 respondents (11.8%) whose knowledge was lacking and had inappropriate developments.

Based on the results of statistical analysis used SPSS version 21 , 0 with the *Chi-square* test obtained a value of *p* = 0,000, α = 0.05 so that *p* <α, the research hypothesis (Ho) is rejected, meaning there was a relationship between mother's knowledge about stimulation, detection and early intervention of child development in Cambayya Urban Village in 2019. To assess the strength of the relationship between these variables obtained *phi* coefficient value (μ) = (0.556) it's mean that the relationship between these variables was enough which is equal to (55.6%).

Table 7
Relationship between The Level of Education with Child Growth
in Cambayya Urban Village in 2019

Education	Growth				total		*P* value	Value of phi (μ)
	Appropriate		Inappropriate					
	n	%	n	%	n	%		
High	29	38.2	2	2.6	31	40.8	0.001	0.374
Low	27	35.5	18	23.7	45	59.2		
total	56	73.7	20	26.3	76	100		

Based on table 7 above, it shows the relationship between the level of education of the mother and the growth of children in the Cambayya Urban Village of 76 respondents, as many as 29 respondents (38.2%) who were highly educated and had appropriate growth, 2 respondents (2.6%) were highly educated and had inappropriate growth, 27 respondents (35.5%) were low educated and had appropriate growth, 18 respondents (23.7%) were low educated and had inappropriate growth.

Based on the results of statistical analysis used SPSS version 21 , 0 with the *Chi-square* test *p* value = 0.001, α = 0.05 so that *p* <α, the research hypothesis (Ho) is rejected means that there is a relationship between the level of education of mothers and children in Kelurahan Cambayya in 2019. To assess the strength of the relationship between these variables obtained the value of the *phi* coefficient (μ) = (0.374), which means that the relationship between these variables is low, that is equal to (37.4 %).

Table 8
Relationship between The Level of Education with Child Development
in Cambayya Urban Village in 2019

Education	Development				total		*P* value	Value of phi (μ)
	Appropriate		Inappropriate					
	n	%	n	%	n	%		
High	31	40.8	0	0	31	40.8	0.008	0.304
Low	36	47.4	9	11.8	45	59.2		
total	67	88.2	9	11.8	76	100		

Based on table 8 above shows the relationship between the level of education of mother with child development in the Cambayya Urban Village of 76 respondents there were 31 respondents (40.8%) who were highly educated and had appropriate child development, no respondents were highly educated and had child development who were inappropriate, as many as 36 respondents (47.4%) were low educated and had appropriate child development, 9 respondents (11.8%) were low educated and had inappropriate child development.

Based on the results of statistical analysis used SPSS version 21 , 0 with the *Chi-square* test *the* value of $p = 0.022$, $\alpha = 0.05$ so that $p < \alpha$, the research hypothesis (Ho) is rejected means that there is a relationship between the education level of mothers with child development in the Cambayya Urban Village in 2019. To assess the strength of the relationship between these variables obtained the value of the *phi* coefficient (μ) = (0.304) which means that the relationship between these variables is low, that is equal to (30 , 4 %).

DISCUSSION

Relationship between Mother's Knowledge about Stimulation, Detection and Early Intervention of Child Development with Child Development in Cambayya Urban Village 2019

Based on the results of the *Chi-square* statistical analysis, the value of p = 0,000 is smaller than the value of $\alpha = 0.05$ so Ha is accepted and Ho is rejected so it can be said that there was a relationship between mother's knowledge about stimulation, detection and early intervention of Child Development with child growth in Cambayya Urban Village in 2019.

Based on the results of *Chi-square* test statistics, the value of p = 0,000 is smaller than the value of $\alpha = 0.05$, so Ha is accepted and Ho is rejected so that it can be said that there was a relationship between mother's knowledge about stimulation, detection and intervention of child development with child development in Cambayya Village in 2019.

The results of this study are in line with the research conducted by Ayu Yoniko Christiari, et al, entitled the Relationship of Mother's Knowledge of Early Stimulation with Motor Development in Children aged 6-24 months in Mayang District, Jember Regency with the results of bivariable analysis with the *Marginal Homogeneity* statistic obtained p = 0,000 < 0.05 so , it can be concluded that there was a significant relationship between mother's knowledge about early stimulation with children's motor development.

The results of this study are in line with the research conducted by Bintang Tantejo, et al, entitled the Relationship of Mother Knowledge about Nutrition to Nutritional Status of Toddlers in the 2013 Koto Kampar Community Health Center XIII Work Area with the results of bivariable analysis with *Chi-square* statistical test obtained p = 0.047 <0.05 so that it can be concluded that there is a significant relationship between maternal knowledge about nutrition and the nutritional status of children in the work area of the Koto Kampar XIII Health Center in 2013.

According to Notoatmodjo (2010), knowledge *(knowledge)* is the result out of the man, who simply answering the question "what", for example, what the water, what a man, what is natural, and so on. Knowledge is a person's mental response in relation to certain objects which are based on "existing" or happening. Knowledge is a guideline in shaping one's actions. The existence of knowledge will lead to awareness of someone who eventually triggers to behave in accordance with the knowledge they have. A better mother's knowledge about growth stimulation in the form of nutrition or providing nutritious food according to the age of the child as well as developmental stimulation that is by training the child's ability in a directed and orderly manner according to the child's age, early detection and developmental growth. trigger child development to be more optimal.

According to Dr. Soetjiningsih, SpAK (2012) stimulation is an important thing in developing children. Children who get directed and regular stimulation will develop faster than children who lack / do not get stimulation, as well as nutritional factors that also play an important role in child development, therefore mother's knowledge about nutrition is very important so mothers can choose food by paying attention the quantity and quality of food consumed and better understand the fulfillment of balanced nutrition for their

children, so that the fulfillment of nutritional needs such as carbohydrates, proteins, vitamins and minerals can trigger children's growth to be more optimal.

Based on the results of the *Chi-square* test statistical analysis, the value of *p* = 0.001 is smaller than the value of α = 0.05 so Ha is accepted and Ho is rejected so it can be said that there is a relationship between the education level of mother with child growth in Cambayya Village 2019

Based on the results of *Chi-square* test statistical analysis, the value of *p* = 0.022 is smaller than the value of α = 0.05 so Ha is accepted and Ho is rejected so that it can be said that there is a relationship between the education level with child development mothers in Cambayya Village in 2019.

According to Notoatmodjo, one of the factors that influence knowledge is education. Education is an attempt to develop personality and abilities inside and outside school and last a lifetime. information was obtained from both formal and non-formal education can provide short-term influence resulting in changes or increased knowledge.

The level of education is very influential in improving the quality of human resources. With a high level of education, a person will be able to more easily follow the development of science and absorb technological advancements and information provided. But it does not rule out the possibility of someone with a low level of education having less knowledge about something, because information or knowledge can be obtained from various sources such as mass media, experience and social environment.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the results and discussion in this study it can be concluded that:

1. Mother's education level has a significant relationship with the growth of children, this is evidenced by the results of the *chi square* statistical test obtained *p* value = *0.001* <0.05 and the value of the *phi* coefficient (μ) = 0.374 (37.4%).
2. Mother's education level has a meaningful relationship with child development, this is evidenced by the results of the *chi square* statistical test obtained *p* value = 0.022 <0.05 and *phi* coefficient value (μ) = 0.304 (30.4%).
3. Mother's knowledge about Stimulation, Detection and Early Intervention of Child Development has a meaningful relationship with child growth, this is evidenced by the results of the chi square statistical test obtained p value = 0,000 <0,05 and the value of the phi coefficient (μ) = 0,777 (77, 7%). 2)
4. Pengetahuan ibu tentang Stimulasi, Deteksi dan Intervensi Dini Tumbuh Kembang Anak mempunyai hubungan yang bermakna dengan perkembangan anak, hal ini dibuktikan dengan hasil uji statistik chi square diperoleh nilai p= 0,000<0,05 dan nilai koefisien phi (μ)=0,556 (55,,6%).Mother's knowledge about Stimulation, Detection and Early Intervention in Child Growth has a meaningful relationship with child development, this is evidenced by the results of the *chi square* statistical test obtained *p* value = 0,000 <0,05 and the value of the *phi* coefficient (μ) = 0,556 (55, , 6%).
5. Knowledge has a stronger correlation with child development compared to the correlation level of education with child development.

Suggestion

Based on the results and conclusions of researchers, several things can be suggested, namely:

1. Health workers are expected to routinely provide counseling to parents about Stimulation, Detection and Early Intervention of Child Development so that maother's knowledge about SDIDTK increases and influences a mother's awareness which eventually triggers her behavior according to her knowledge so that her child can grow and develop optimally .
2. It is expected that mothers is able to increase knowledge about child development by seeking information from various sources so mothers can provide growth stimulation, namely the fulfillment of balanced nutrition and developmental stimulation, namely by exercising the ability of children routinely according to the age of the child so that there is no delay in the growth and development of children.

3. It is expected that a mother can detect and intervene early if there is a disruption of growth in her child.
4. It is expected that the next researcher will develop this research with different methods or variables.

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