

THE CORELATION OF KNOWLEDGE AND BEHAVIOUR OF MOTHER'S STIMULATION FOR DEVELOPMENT OF ADAPTIF MOTOR 1-3 YEARS OLD IN NGAMPEL VILLAGE KEDIRI

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Abstract

The children were the most precious assets of their parents. The parents expected their children to grow well, had education that could develop their talents and skills maximally. In order to achieve those goals the parents had responsibilities and held a key role toward their learning process and growth by stimulating them to keep their growths according their age steps. The objective of this research was to know The Corelation Of Knowledge And Behaviour Of Mother's Stimulation For Development Of Adaptif Motor 1-3 Years Old In Ngampel Village Kediri.

The population was all women who had 1 – 3 years old babies in Ngampel Village Kediri City and 82 respondents were taken as samples by Cluster Random Sampling Technique. The instruments were knowledge questionnaires and stimulation behaviors. A validity and reliability tests were held before it was applied. The growth variable refers to The Detection Stimulation Guidance and The 1 – 3 Years Old Children's Growth Early Interventions Book. The data was analyzed with Double Linear Regression Test and p significance as the significance parameter. The data analysis software was SPSS Version 17.

There was a corelation between adaptif motor stimulation knowledge towards 1 – 3 years old infants adaptif motor growth ($p = 0.000 < 0.05$: H_0 was denied). There was a corelation between the women's stimulation behaviors toward 1 – 3 years old infants fine motor growth ($p = 0.000 < 0.05$: H_0 was denied). There was a corelation between knowledge and adaptif motor stimulation behaviors toward 1 – 3 years old infants adaptif motor growth ($p = 0.013 < 0.05$: H_0 was denied) with an equivalence $Y = 8.506 + 0.376X_1 + 0.562X_2$.

If knowledge and adaptif motor stimulation behaviors were improved, the children's adaptif motor growth would as well and vice versa. The Health Officers were recommended to hold a special class for the infants' mothers with Fine Motor Stimulation Based on The Children's Ages Material. The methods could be role play, simulation or direct practices.

Keypoint : Knowledge, Stimulation behaviors, Adaptif motor

1. Preface

The child is a baby that needs serious attention from parents in order to grow and thrive. Childhood is a crucial time because in the span of five childhood (prenatal, infancy

and staggering, both childhood and adolescence), personal and attitudes formed. Ideally the child can grow up healthy physically, mentally and socially. Related to efforts to achieve

these conditions, the early child should always be monitored growth and development. This is so that the child can grow and develop optimally.

In a child's life there are two processes that operate continuously, namely growth and developments. Both of these processes take place in independently, interdependent with each other woods, and cannot be isolated which purely stand alone, but can be distinguished in order to more easily understand it.

Every child grows and develops through the process of learning about himself and the surrounding world. The learning process is ongoing and continuous during his lifetime, since the age of infancy to adulthood. When children begin to grow old, then his world has expanded the world of home (parents, brother / sister, family environment) and moved into the world outside the home (friend's age, school, society and so on).

The child's development is influenced by several factors, such as genetic and environmental factors. Environmental factors, especially the family is the most instrumental factor in the development of the child, because the family is the first known child's environment, especially the mother. Preschoolers (1-3 years) is a stage of age who craves stimulation to support growth and development. Each child needs to get regular stimulation as early as possible and is constantly on every occasion.

Children who received stimulation more rapidly compared with less or no stimulation, besides stimulation is also reinforcing the relationship between parent and

child. Lack of parental knowledge of stimulation, although it has relatively more time resulting in the lack of information that can be given to their children. The problem is that not all parents, especially mothers can provide stimulation to the growth and development of their children. As a result of these activities is rarely done more often allowed children to play with the game or just watching television. Children's games should be able to stimulate the development of children's creativity as well as mental and emotional development, so parents should be directed to comply with the maturity of these developments.

Results of a preliminary study in Ngampel Village Mojoroto Sub District Kediri City of 10 children aged 1-3 years got 5 children (50%) does not match the rate of development and 5 children (50%) according to the level of its development. Meanwhile, 3 of 10 mothers (30%), which provides stimulation while 7 mothers (70%) did not provide stimulation.

Based on the problems described above, the researchers interested in conducting research with the title of Mother's Knowledge and Behavior Stimulation Relations toward 1-3 years Toddlers' Fine Motor Development in Ngampel Village Mojoroto Sub District Kediri City.

The previous researches were Gabriela M. Hungerford, Dainelys Garcia, and Daniel M. Bagner (2015) studied about psychometric Evaluation of the Brief Infant-Toddler Social and Emotional Assessment (BITSEA) in a Predominately Hispanic, Low-Income Sample and resulted the

BITSEA as an effective screening tool for use with young infants, Hispanic and Spanish-speaking populations, and low-income families. Aisha K Yousafzai, Muneera A Rasheed, Arjumand Rizvi, Robert Armstrong, Zulfiqar A Bhutta (2013) studied about Effect of integrated responsive stimulation and nutrition interventions in the Lady Health Worker programme in Pakistan on child development, growth, and health outcomes: a cluster-randomised factorial effectiveness trial dengan hasil The responsive stimulation intervention can be delivered effectively by LHWs and positively affects development outcome. Pamela J. Surkan Sc.D. a,*, Emily H. Siegel Ph.D. a, Shivani A. Patel M.P.H. b, Joanne Katz Sc.D. a, Subarna K. Khattry M.B.B.S. a,c, Rebecca J. Stoltzfus Ph.D. d, Steven C. LeClerq M.P.H. a,c, James M. Tielsch Ph.D. (2012) studied about Effects of zinc and iron supplementation fail to improve motor and language milestone scores of infants and toddlers

2. Research Methods

This type of research is correlational analytic research with cross sectional approach. This research was conducted in Ngampel Village Mojooroto Sub District Kediri City, data collection is done in Posyandu Dahlia II and IV. The research was conducted in May 2015.

The population in this study are all mothers who have 1-3 years children in Ngampel Village Mojooroto Sub District Kediri City.

Sampling was done by cluster random sampling technique.

The collection of data obtained through a questionnaire containing questions about the early stimulation fine motor skills and fine motor stimulation behavior. Meanwhile, to assess progress using a questionnaire that has been modified by researchers refer to the Handbook Stimulation Detection and Early Intervention Growth aged 1-3 years. Data analysis using Multiple Linear Regression.

3. Results

Table 1 Knowledge of 1-3 year Toddlers' Fine Motor Stimulation in Ngampel Village Kediri City.

No.	Knowledge	Statistics
1	Mean	55,83
2	Minimum	27
3	Maximum	93
4	Standard Deviation	16,147
5	Maximum Score	100

Based on table 4.5 the average fine motor stimulation knowledge level is 55.83, with the lowest score is 27 and the highest is 93 of the maximum score 100

Table 2 Early 1-3 Years Toddlers' Fine Motor Stimulation in Ngampel Village Kediri City.

No.	Fine Motor Stimulation	Statistics
1	Mean	54,74
2	Minimum	33
3	Maximum	95
4	Standard Deviation	16,652
5	Maximum Score	100

Based on table 2 the average fine motor stimulation score is 54.74, with the lowest score is 33 and the highest is 95 of the maximum score

100 and the standard deviation 16.652.

Table 3 Early 1-3 Years Toddlers' Fine Motor Growth in Ngampel Village Kediri City.

No.	Fine Motor Growth	Statistik
1	Mean	60,29
2	Minimum	33
3	Maximum	100
4	Standard Deviation	16,422
5	Maximum Score	100

Based on table 3 the average fine motor growth stimulation score is 60.29, with the lowest score is 33 and the highest is 100 of the maximum score 100 and the standard deviation 16.422.

Table 4 The analysis result of Linear Regression of the knowledge relation about fine motor stimulation towards 1-3 Years Toddlers' Fine Motor Growth in Ngampel Village Kediri.

Variable	Regression Coefficient (B)	t	p
Knowledge	0.376	4.677	<0.000
n observation = 82			
<i>Adjusted R</i> ² = 0.62			
<i>r</i> _{count} = 0.787			
p < 0.000			

Based on Table 4 is known to have a relationship of knowledge about fine motor stimulation for fine motor development of children aged 1-3 years ($p = 0.000 < 0.05$: means H_0 rejected so significant).

The coefficient of determination (R^2) of 0.62 means that 62% fine motor development of children aged 1-3 years was influenced by

knowledge of the fine motor stimulation. While the remaining 38% due to other factors that can not be explained in the regression equation.

The correlation coefficient (r) 0.787 means that the level of relations including a strong and positive ckup category means the higher the score of knowledge about fine motor scores, the higher the fine motor development of children aged 1-3 years and conversely the lower the score of knowledge about fine motor will get low scores of fine motor development of children aged 1-3 years.

Constant knowledge of the fine motor skills of children aged 1-3 years is 0.376 (positive value) means that without any additional knowledge about the scores of fine motor stimulation it gives the possibility of increasing fine motor development of young children aged 1-3 years by 0.376 times

Table 5 The analysis result of Linear Regression of the mothers' stimulation behavior relation towards 1-3 Years Toddlers' Fine Motor Growth in Ngampel Village Kediri City.

Variable	Regression Coefficient (B)	t	p
Fine Motor Stimulation	0.562	7.214	<0.000
n observation = 82			
<i>Adjusted R</i> ² = 0.707			
<i>r</i> _{count} = 0.841			
p < 0.000			

According to the table 4.9 is known to have a relationship stimulation mother's behavior

towards the development of fine motor toddlers 1-3 years ($p = 0.000 < 0.05$: means H_0 rejected so significant).

The coefficient of determination (R^2) of 0.707 means that 70.7% fine motor development is influenced by factors of fine motor stimulation. While the remaining 29.3% for other factors that cannot be explained in the regression equation.

The correlation coefficient (r) = 0.841 means that the level of relations including strong category and a positive score means higher fine motor stimulation, the higher the score fine motor development of children aged 1-3 years and conversely the lower scores of fine motor stimulation will get low scores developments fine motor skills of children aged 1-3 years.

The constant stimulation of fine motor skills of children aged 1-3 years is 0.562 (positive value) means that without any additional stimulation Fine motor behavior score it gives the possibility of increasing fine motor development of young children aged 1-3 years by 0.562 times.

Table 6 The analysis result of Linear Regression of the knowledge and mothers' stimulation behavior relation toward 1-3 Years Toddlers' Fine Motor Growth in Ngampel Village Kediri City.

Variable	Regression Coefficient (B)	t	p
Constanta	8,506	2,555	< 0,013
Knowledge	0,376	4,677	< 0,000
Stimulation	0,562	7,214	< 0,000

n
observation
= 82
 $Adjusted R^2 =$
0,765
 $r_{count} = 0,874$
 $F = 0,000$
 $p < 0,030$

Based on the table 6 are known to exist correlation between knowledge and behavior of fine motor stimulation with fine motor development of children aged 1-3 years ($p = 0.013 < 0.05$: significant meaning that H_0 is rejected) by the equation $Y = 8.506 + 0,376X_1 + 0,562X_2$.

The coefficient of determination (R^2) of 0.765 means that 76.5% fine motor development of children aged 1-3 years are affected by the knowledge and behavioral factors stimulating the development of fine motor skills. While the remaining 23.5% for other factors that cannot be explained in the regression equation. The correlation coefficient (r) of 0.874 means that the level of relations including a strong and positive categories. It means that the higher the score of knowledge and behavior in children fine motor stimulation will increasingly steeper scores also fine motor development of children.

The constant development of 8.506 (a positive value) means that without any additional knowledge and behavior scores of fine motor stimulation it will provide increased scores for children's development by 8.506 times.

Based on the test results Anova Regression obtained F value of 0.000 < 0.05 then H_0 is rejected so significant, meaning that there is a

relationship of knowledge and stimulation of the mother's behavior toward fine motor development of children aged 1-3 years.

The value obtained from the contribution of multiple linear regression calculation is based on the sum of the constants of $X_1 + X_2$ to obtain the value of a donation of 0.938. it means the level of relationship between the variables of knowledge, fine motor stimulation behavior with a child's development were strong and positive.

4. Acknowledgement

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5. Discussion

The coefficient of determination (R^2) was 0.765; it means that 76.5% 1-3 years children's fine motor development are affected by the knowledge and behavioral factors stimulating the development of fine motor skills. While the remaining 23.5% for other factors that cannot be explained in the regression equation. Knowledge of stimulation was needed for basic behavior (fine motor stimulation). Parents who have knowledge of the fine motor stimulation will be able to do it properly. If this is really applied then the child will get an effective fine motor stimulation so that they can develop their fine motor skills as well.

The correlation coefficient (r) was 0.874 it means that the level of relations was strong and positive. This implies the higher the score of

knowledge and behavior in children fine motor stimulation will increasingly steeper scores also fine motor development of children. If knowledge of the fine motor is applied correctly by giving fine motor stimulation then the result will be really effective in improving the children's fine motor development.

The constant development value is 8.506 (positive value) it means that without any additional knowledge and behavior, the fine motor stimulation scores will increase the children's development scores 8.506 times. It can be interpreted that both knowledge and behavior give 8.5 times effectiveness score in improving the children's fine motor development. The Probability Value was very high.

Based on the Anova Regression test results, F value was $0.000 < 0.05$ then H_0 is rejected, it means that there is a relationship of knowledge and stimulation of the mother's behavior toward 1-3 years children's fine motor development.

The value was obtained from the contribution of multiple linear regression calculation based on the sum of the constants of $X_1 + X_2$ so the donation value was 0.938. The interpretation was the relationship level between the variables of knowledge, fine motor stimulation behavior toward the children's development was strong and positive.

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