# The Relationship Between Exclusive Breast Feeding With Fine Motoric Development In Infants 6-12 Months Of Age In The Village Kebonsari Rw 02 Temple Sidoarjo

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ABSTRACT

Baby village temple Kebonsari sidoarjo many are not exclusively breastfed because most mothers so busy working impaired fine motoric development. The purpose of this study was to determine the relationship of exclusive breastfeeding with fine motoric development in infants aged 6-12 months Kebonsari Candi Sidoarjo village. This study design was observational analytic. The study population was 35 pairs of mothers and infants village temple Kebonsari Sidoarjo and sample 32 pairs of respondents, taken by simple random sampling. The independent variables were exclusively breastfed and fine motoric development of babies as the dependent variable. Instrument data collection using questionnaires and observation sheets DDST then Spearman rank test with significance level $\alpha = 0.05$. The results showed that a large part (71.9%) of mothers breastfeeding, and the bulk (62.5%) infants have normal fine motoric development. Spearman rank test results obtained value of $\rho = 0.023 < \alpha = 0.05$, H0 denied, there is a relationship of exclusive breastfeeding with fine motoric development in infants aged 6-12 months Kebonsari Candi Sidoarjo village. The conclusions of this research are mothers who exclusively breastfed their babies and fine motoric development is normal. Nurses are highly recommended providing information about how and benefits of exclusive breastfeeding for the stimulation of the development of fine motoric skills



## I. Introduction

Since birth the baby will begin the process of growth and development, including the development of fine motoric, gross, and language, that the need to take action on something related to the environment. In this condition the baby will begin to collect all the capabilities of his experience in the world that will become a new complex motor skills and will continue to grow today's evolving motor skills baby will be able to fully interact with their environment. (Surinah, 2009). fine motoric skills are skills that involve a more refined set with such dexterity. (Santrock 2007). The development of fine motoric skills begin to have the ability to wiggle your toes, draw two or three parts, drawing people, able to clamp objects,

Development of the baby will be good if it is supported by the provision of good nutrition. Nutrition for babies obtained from breast milk. Nutritional content of breast milk is very special and perfect and in accordance with the needs of the baby's growth. Breast milk is easy to digest, because in addition to containing the appropriate nutrients, it also contains enzymes to digest nutrients contained in the breast milk. Breast milk contains a complete vitamin that can meet the needs of infants up to 6 months except for vitamin K, since newborns intestines have not been able

2 form of vitamin K. Then after birth the baby is usually given extra vitamin K from outside (Maryunani, 2012). It is useful to the intelligence of the baby that will affect the development of fine motoric skills.

Exclusive breastfeeding or more appropriately called exclusive breastfeeding, meaning that babies given only breast milk alone, without the addition of other liquids, such as milk formula, orange, honey, tea, mineral water, also extra-dense foods, such as bananas, papaya, milk porridge, biscuits, rice porridge or teams from birth to age 6 months. Exclusive breastfeeding is an important factor for the success of long-term breastfeeding (Roesli 2005 desitasi Diana, 2007).

In fact in the community in 2013 60% of infants aged 6-12 months had developmental disorders fine motoric skills such can not yet be able to supply goods to a place, a puzzle, the block, and inserting an object into the hole corresponding shape, make the line, fold the paper. This shows that the high percentage of children with disorders of the small motor. This can be caused because the baby was not breastfed exclusively and impaired fine motoric development.

According to WHO (2012), in Indonesia 15-55% of children under five impaired fine motoric skills. Data from the East Java Provincial Health department in 2013 on growth and development of children under five in East Java in charge 85% but coverage 40-59% inspected and undergo fine motoric development is not optimal (Depkes East Java, 2014). Indonesian Pediatric Association (IDAI) East Java checks in December 2013 to 2,634 children from the ages of 0-72 months. From the results of the motor development was found as much as 53% impaired fine motoric development. According to research results Ariyana (2013), regarding the fine motoric development of children aged 6-12 months, showed fine motoric development of children of normal 45% and fine motoric development of children are disturbed 55%. Child development disturbed due care caused by environmental factors, nutritional status, health status, stimulation and culture (Hidayat, 2013). According to research Wisyastuti (2012) taken from medical research journals eastern Java were taken from two hospitals in Surabaya recorded 35.7% of children had fine motoric delays.

Initial data retrieval conducted by researchers at the village temple Kebonsari sidoarjo obtained from 10 infants who checked in get 7 children who are not breastfed exclusively impaired fine motoric development.

Factors - factors that influence the development of the baby that is a factor gestation period (prenatal): Nutrition mother, metabolic disease / hormonal mother, chemicals, radisasi Factor, the period of delivery (Christmas): The gestational age, low birth weight, hyperbilirubinemia, factors after delivery (post-natal): Genetic disorders, nutritional status of children, exclusive breastfeeding, infection, socioeconomic status, psychosocial, family Stimulation. (Maryunani, 2012). Without fine motoric skills, children can not be moved from the helpless condition in the first months of his life, into an independent state. A child can not freely move from one place to another and can not commit itself to him. This will reduce the development of self-confidence. (Musbikin Priest, 2012).

The solution to the above problems is to meet the needs of children's growth and development, namely the proper stimulation. As well as doing counseling about the development of the child in accordance with his age. Stimulation of the mother also plays an important role in meeting the child's growth and development. Based on the above phenomenon researchers are searching for exclusive breastfeeding relationship with the fine motoric development in children aged 6-12 months in the village of Candi Sidoarjo Kebonsari.

## II. Method

This research is an analytic observational research which is structured to analyze, describe a relationship between exclusive breastfeeding with fine motoric development, and testing based on existing theory using cross sectional approach. The population in this study were all mothers and babies aged 6-12 months as many as 35 pairs In March 2016 in the village of Kebonsari temple RW 2 Sidoarjo the number of samples taken 32 pairs of Probability Sampling using simple random sampling technique. Data were collected through questionnaires, then do distribution of data in order to obtain the results.

## III. Results and Discussion

### a. Exclusive breastfeeding

Results of research on exclusive breastfeeding by (Depkes, 2010) explains that when babies are breastfed for 6 months say

The infants were exclusively breastfed and if not breastfed for 6 months said is not exclusively breastfed, obtained as in table

Table 5.5 Distribution of the frequency of exclusive breastfeeding in infants aged 6-12 months in the village of Candi Sidoarjo RW 02 June 2016

| No | Exclusive Breastfeeding | Frequency | Percentage |
|---|---|---|---|
| 1 | Good | 23 | 71,9 |
| 2 | Less | 9 | 28,1 |
| Total | 32 | 100 | |

According to Table 5.5 shows that out of 32 respondents largely

71.9% (23) of respondents give exclusive breastfeeding her baby.

### b. Fine motoric development

Results of research on the development of fine motoric skills by (Soetjiningsih 2009) which explains that assessment of motor development baby fine there are 4 sections namely abnormal, doubtful, cannot be tested, and normal, it was found as shown in Table 5.4 below:

Table 5.6 Distribution of the frequency of fine motoric development in infants at RW 02, Village Kebonsari Candi Sidoarjo April 2016

| No. | Development fine motoric | Frequency | Percentage (%) |
|---|---|---|---|
| 1. | Abnormal | 1 | 3.1 |
| 2. | Doubtful | 11 | 34.4 |
| 3. | Cannot be tested | 0 | 0 |
| 4. | Normal | 20 | 62.5 |
| Total | | 32 | 100 |

*Source: Primary Data June 2016*

According to Table 5.6 shows that out of 32 respondent majorities of 62.5% (20) of respondent experienced normal development.

### c. Exclusive breastfeeding with the development of fine motoric skills

Results of research on the development of exclusive breastfeeding

Fine motoric obtained as shown in Table 5.7 below:

Table 5.7 the results of exclusive breastfeeding with fine motoric development in infants aged 6-12 months in RW 02, Village Kebonsari Candi Sidoarjo June 2016

| No | Exclusive Breastfeeding | Fine Motoric Skills | | | | Total |
|---|---|---|---|---|---|---|
| | | Abnormal | Doubtful | Cannot be tested | Normal | |
| | | (%) | (%) | (%) | (%) | |
| 1. | Yes | 0 | 26.1 | 0 | 73.9 | 100 |
| 2. | No | 11.1 | 55.6 | 0 | 33.3 | 100 |
| | Total | 3.1 | 34.4 | 0 | 62.5 | 100 |
| *Test of Spearman Rank Statistics* | | | | | | |
| *Sign (2-tailed) = 0.023* | | | | | | |

*Source: Primary Data June 2016*

According to Table 5.7 shows that out of 32 respondents surveyed, 23 mothers who exclusively breastfed, the majority (73.9%) experienced baby fine motoric development is normal. Spearman rank test results known value of ρ 0.023. Based on the results of the Spearman rank test with SPSS for windows with a significance level α = 0:05 is obtained ρ = 0.023 where ρ <α then $H_0$ rejected means that there is a relationship of exclusive breastfeeding with fine motoric development in infants aged 6-12 months in the village of Candi Sidoarjo Kebonsari.

## IV. DISCUSSION

### a. Exclusive breastfeeding

Based on Table 5.5 shows that out of 32 respondents the majority (71.9%) of respondents give exclusive breastfeeding her baby. The mothers have been many who know the importance of breast milk for the child's development so that most villagers Kebonsari many who exclusively breastfed. At the beginning of his life, babies need adequate nutrition for growth, so as to optimize the entire process of growth and development. ASI is a complex biological fluids that contain all the nutrients the body needs child. Infants who are not breastfed by his mother then progress will be interrupted, this is because the mother is busy working, so not too focused to breastfeed her baby.

Factors that affect the rate of exclusive breastfeeding among education, work and knowledge. (Maryunani, 2012). Based on Table 5.3 shows that out of 32 respondents almost half (37.5%) of respondents secondary education. The level of education were significantly associated with exclusive breastfeeding for the higher level of education of the mother the mother increasingly understand the importance of breastfeeding for the child's development. Therefore, if the higher educated the mother so the child will be given exclusive breastfeeding for the mother already understand the importance of breastfeeding for the child's development. Education is a factor that contributed towards the better. So, the level of education will affect knowledge / understanding of the mother to better respond to information about the importance of breastfeeding for the child's development. The higher the level of education of the mother, the more easily interpret the information thus creating a good thing, otherwise less education would hamper the interpretation of a person's information to the new objects were introduced. (Wiknjosastro, Hanifa. 2007).

Based on Table 5.4 shows that out of 32 respondents the majority (59.4%) of respondents did not work or housewives. Works mother effect on breastfeeding in the baby because if the mother works then the mother can not be too focused on delivering the milk to the baby because of busy work, If the mother does not work and just be a housewife then the mother can focus on giving her breastfed at 6 months. Jobs has a role in a person's knowledge. Someone who works will have more opportunities to obtain information or knowledge than someone who does not work and spending more time at home. However, to apply the mothers tend to be very difficult because women who work outside the home tend to be choosing to formula feed because it is considered more practical. (Depkes, 2010).

Exclusive breastfeeding was defined as breastfeeding as early as possible after delivery, provided without a schedule and no additional food until the baby is six months old. Food additives intended that formula, boiled water, fruit juice, sugar water, and honey. Vitamins, minerals, and drugs in the form of drops or syrups are not included in food additives (Dee, 2007; Pearl et al, 2004 in Earth, 2012).

Nutrient content of exclusive breastfeeding is very special and perfect and in accordance with the needs of the baby's growth. Breast milk is easy to digest, because in addition to containing the appropriate nutrients, it also contains enzymes to digest nutrients contained in the breast milk. Breast milk contains a complete vitamin that can meet the needs bayib to 6 months except for vitamin K, since newborns intestines have not been able to form vitamin K. Then after birth the baby is usually given extra vitamin K from outside (Maryunani, 2012).

**b. The development of fine motoric skills**

Based on Table 5.4 shows that out of 32 respondents the majority (62.5%) of respondents experienced normal development. Normal development as a child to try to achieve something, the child can move the object to the other, the child can take two cubes, a child can determine two cube held together and can enter the cube into a cup. This is because the gestational age of the mother is in conformity with that supposedly is about 37-42 weeks so the baby's organs are ripe and ready so that the development of fine motoric skills are not disturbed. (Dariyo, 2007).

Factors affecting infant growth factor one delivery period (Christmas) that gestational age, birth weight, and hyperbilirubinemia. (Maryunani, 2012). Based on Table 5.1 shows that out of 32 respondents the majority (62.5%) gestational age of the mother is in conformity with that supposedly is about 37-42 weeks so the baby's organs are ripe and ready so that the development of fine motoric skills are not disturbed. If the mother's gestational age less than 37-42 weeks the child's development will be disrupted because of the organs of the baby is not yet ready and immature so that development will be disrupted. Gestational age was very influential in the development of the baby's fine motoric, when the baby was born at the time of pregnancy is 37-42 weeks old mother then organ-organ body of the baby is mature so that the baby's growth process will not be interrupted as fine motoric development. (Dariyo, 2007).

Factors affecting infant growth factor one delivery period (Christmas) that gestational age, birth weight, and hyperbilirubinemia. (Maryunani, 2012). Based on Table 5.2 shows that out of 32 respondents the majority (65.6%) of respondents' children at birth have a normal weight is> 2500 g. Birth weight was very influential in the development of the baby due to weight at birth around <2,500 g will affect organ development because the baby's organs will develop well one fine motoric development. If the baby at birth has a weight of 2,500 g then tend normal infant development one fine motoric development due to the weight of the baby at birth normal ie> 2,500 g so organ_organ like lungs already beefungsi to normal so that the organs of the baby will develop well. (Wong, 2008).

The development is the increase in the structure and function of the body is more complex in movement abilities rough, smooth motion, speech and language as well as socialization and independence, while Andriani (2011), states that development is the increasing ability of the structure and function of the body is more complex in a regular pattern and can be predicted, as a result of the maturation process. (IDAI, 2010)

Fine motoric skills are the skills related to physical skills that involve small muscle and eye-hand coordination. Fine motoric nerves can be trained and developed through continuous and regular stimulation. Such as, a puzzle, the block, and inserting an object into the appropriate hole shape, making the lines, fold the paper and so on. Several studies have proved that the development of fine motoric skills are affected by several things: one ASI, the study of which do Ariyana (2013) on the development of fine motoric skills of children aged 6-12 months, showed fine motoric development of children of normal 45% and fine motoric development 55% of children are disturbed.

**c. The relationship of exclusive breastfeeding with the development of fine motoric skills**

Exclusive breastfeeding relationship with fine motoric development can be seen from the results of statistical tests using Spearman rank the significance level ($\alpha$ = 0,05), the results obtained so $\rho=0.023 < \alpha$ such that $H_0$ rejected means that there is a relationship of exclusive breastfeeding with fine motoric development in infants aged 6-12 months in the village of Candi Sidoarjo Kebonsari.

Exclusive breastfeeding was defined as breastfeeding as early as possible after delivery, provided without a schedule and no additional food until the baby is six months old. Food additives intended that formula, boiled water, fruit juice, sugar water, and honey. Vitamins, minerals, and drugs in the form of drops or syrups are not included in food additives (Dee, 2007; Pearl et al, 2004 in Earth, 2012). Based on table 5.5 in mind that respondents who exclusively breastfed their baby so the baby will have normal development and those that progress disturbed this is due to the consumption of nutrition of the mother during breastfeeding less so the effect on the milk consumed by the baby.

Several studies have shown, the milk can affect the baby's development, the study of which is done by Roesli (2011), Roesli say that breast-fed babies showed better growth when compared with non-breastfed infants.

Another study by Wisyastuti (2012) taken from medical research journals eastern Java were taken from two hospitals in Surabaya recorded 35.7 halus.hal children experience

motor delay is due to the baby not being exclusively breastfed because most mothers are busy working, so not too focus on exclusive breastfeeding her baby.

Maryunani (2012) suggested that exclusive breastfeeding affect infant development, especially the development of fine motoric skills. Because the baby of nutrients derived from breast milk so that the milk is very important for the development of the baby one fine motoric development.

## V. Conclusion

Based on the results of research on the relationship of exclusive breastfeeding with fine motoric development in infants aged 6-12 months in the village of Candi Sidoarjo Kebonsari can be concluded that the mother village Cand Kebonsari Sidoarjo largely exclusive breastfeeding her baby. Baby Kebonsari village Candi Sidoarjo Most of the development of fine motoric skills are not disturbed. There is a relationship between breastfeeding exclusively with fine motoric development of babies.

## VI. Suggestion

This research may **provide** additional knowledge in the disciplines of nursing children about child development. For respondents whose children suffered fine motoric development should be given nutritious foods such as fruits are crushed so that adequate child nutrition for development blossoms. The results of this study can be used preliminary data that can be used as the basis for further research relating to exclusive breastfeeding with the development of fine motoric skills. The results of this study can be used as an input to the midwives in providing information about the importance of breastfeeding for children's development.

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