



# THE RELATIONSHIP BETWEEN EXCLUSIVE BREAST FEEDING WITH DDTK ASSESSMENT IN CHILDREN AGED 6 MONTHS TO 2 YEARS AT POSYANDU ANGGREK PETERONGAN, JOMBANG

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## Article Info

### Article history:

Received Jul 06, 2021  
Revised Aug 18, 2021  
Accepted Sep 24, 2021

### Keywords:

Giving, Exclusive  
Breastfeeding, DDTK  
Assessment.

## ABSTRACT

Exclusive breastfeeding means breastfeeding without food and drink for babies aged 0-6 months. Data obtained from the 2010 IDHS stated that impaired growth and development of toddlers in Indonesia was caused by mothers who were disobedient in giving exclusive breastfeeding to their babies. The aim of the study was to analyze exclusive breastfeeding with a DDTK assessment in children aged 6 months to 2 years at the Orchid Posyandu, Peterongan District, Jombang Regency in 2020. The research design used is an analytical method with an approach *cross sectional*, the samples taken were some mothers who had toddlers aged 6 months to 2 years at the Orchid Posyandu, Peterongan District, Jombang Regency in 2020. Those who met the sample criteria by *Nonprobability Sampling*, technique *Simpel Random Sampling*. The number of samples in this study were 48 respondents. The data obtained is tabulated and grouped to determine the relationship between the two variables. After that the data is entered into the test *SPSS* by analysis *Mann Whitney U* with a significance level of  $p < 0.05$ . the results of the study obtained a significance value of 0.001, so a  $p$  value  $< 0.05$ ,  $H_0$  was obtained,  $H_1$  accepted means that there is a relationship between exclusive breastfeeding and DDTK assessment in children aged 6 months to 2 years. Based on the results of this study, it is hoped that all health workers in the Peterongan District will further improve their performance through counseling activities and data collection on exclusive breastfeeding to achieve the desired toddler development.

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## 1. INTRODUCTION

### 1.1 BACKGROUND

From the research results it is known that the growth and development disorders of children under five years old (toddlers) in Indonesia are partly caused by mothers who are not obedient in giving exclusive breastfeeding to their babies. Mother's milk is the best food for babies and is given until the baby is 4-6 months old. Besides being able to meet the nutritional needs of babies, breast milk also has a number of advantages, namely having immune substances to protect against disease, infection and hygiene. Breast milk is always available at any time with the right temperature, practical, economical and provides psychological warmth between mother and baby. This has a positive impact on the formation of the child's personality in the future. The growth and development of infants and toddlers is largely determined by the amount of breast milk they receive, including the energy and other nutrients contained in the breast milk (IDHS, 2010). Age 0-2 years is the golden period of child growth. Brain growth and development 0-2 years has reached 80 percent of the adult brain (Jus'at Idrus, Dr, 2011).

According to Utami, 2014 in *The American Academy Of Pediatrics* re-emphasized the importance of breastfeeding until the baby is 6 months old. From the data obtained, around 62% of mothers breastfeed their babies, but only 14% of mothers breastfeed until their babies reach 6 months of age. The small number of mothers who breastfeed exclusively is

due to work conflicts and lack of support causing mothers to stop breastfeeding exclusively earlier. (Utami, 2014).

When it comes to exclusive breastfeeding, currently the practice of breastfeeding in Indonesia is quite apprehensive. According to the 2010 IDHS, more than 95% of mothers had breastfed their babies, but those who breastfed within the first hour tended to decrease from 8% in 2000 to 3.7% in 2005. Meanwhile, use of formula milk actually increased more than 3 times fold over 5 years, from 10.8% in 1997 to 32.5% in 2002. (SDKI, 2010).

Based on statistical data, mothers who have breastfed are quite high, namely around 90%, but mothers who exclusively breastfeed are still very low. Data shows a decrease in the prevalence of exclusive breastfeeding from 65.1% to 49.2% (SDKI, 2010). The report from the Surabaya City Health Office in 2015 revealed that for the East Java region, the percentage of exclusive breastfeeding coverage was still below the target. Of the 591,303 babies, only 316,903 (53.59%) were successful in exclusive breastfeeding (East Java Health Office, 2016). According to the 2012 – 2013 demographic and health survey (IDHS) there were around 6.7 million children under five (27.3%) suffering from malnutrition and 1.5 million of them were severely malnourished. When associated with breastfeeding, this situation is quite concerning. In 2013 there were around 6.7 million children under five (27.3%) suffering from malnutrition and 1.5 million of them suffering from malnutrition. Iron nutritional anemia is found in around 8.1 million children (DEPKES, 2016).

According to research conducted by Susenas (2011), the latest data showed a decrease in the prevalence of exclusive breastfeeding from 65.1% in 1998 to 49.2% in 2001. The data obtained from developmental coverage in toddlers obtained speech disabilities of 3%, movement disorders 1%. When viewed from a total of 29.9 percent of infants aged <1 year, 32.8 percent of children aged 1-4 years and 30.1 percent of children aged 5-14 years suffered from developmental delays. (Susenas, 2011).

Data obtained from Jombang Regency obtained data that in 2015 there were 52% of babies who were exclusively breastfed. Whereas in 2016 there was an increase of around 64.23% of babies who were exclusively breastfed. Data from the Jombang District Health Office in 2016 achieved the target of 67.69% with a target of 80% in 2017. Even though the success of exclusive breastfeeding is expected to be achieved for the creation of a healthy Indonesia. (Jombang Health Office, 2017).

According to data obtained from the Peterongan Health Center in 2020, exclusive breastfeeding in Peterongan village has not yet reached the target, namely out of 620 targets only 35% or only 217 are giving exclusive breastfeeding and while the target that must be achieved is 80%. Meanwhile, in the Peterongan sub-village, of the 132 targets, only 29.55% or only 39 gave exclusive breastfeeding. Malnutrition that occurred in the village was 36 children under five, while in the Wonokerto hamlet there were 4 children with BGM, 6 children with malnutrition. (Puskemas, 2020).

It is from this background that the authors are interested in conducting research with the title "The relationship between exclusive breastfeeding and DDTK assessment in children aged 6 months to 2 years".

## 2. RESEARCH METHODS

The research design used is an analytical research approach *Cross Sectional*, namely a study to study the dynamics of the correlation between risk factors and effects, by way of approach, observation or data collection at one time (Notoatmodjo Soekidjo, 2010).

The population in this study were all mothers who had children aged 6 months to 2 years with a total population of 55 respondents. The sample size of this study was 48 children. This research uses *simple random sampling*.

The research location was at the Anggrek Posyandu, Peterongan Village, Peterongan District, Jombang from September 2020 – August 2021. Data collection used primary and secondary data with univariate and bivariate analysis.

## 3. RESULTS AND DISCUSSION

This chapter will describe the results of the research conducted at the Anggrek Posyandu Peterongan Jombang. In September 2020 - August 2021 with 48 respondents. The results of this study are presented in two parts, namely general data and specific data. The general data includes the characteristics of respondents based on age, education, occupation, information and sources of information. Meanwhile, specific data consists of exclusive breastfeeding in children aged 6 months to 2 years, DDTK assessment in children aged 6 months to 2 years and a cross table that describes the relationship between exclusive breastfeeding and DDTK assessment in children aged 6 months to 2 years. The data is in tabular form.

### 3.1 Research Results

#### 3.1.1 General Data

##### 3.1.1.1 Characteristics of Respondents by Age

Table 3.1 Characteristics of Respondents Based on Mother's Age in Anggrek Peterongan Jombang Posyandu

No	Age of Respondents	Amount	Percentage (%)
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1	20-25 years	14	29
2	26-30 years	12	25
3	31-35 years	11	23
4	36-40 years	9	19
5	41-45 years	2	4
<b>Total</b>		48	100

Source: Primary data

Based on table 3.1 it can be seen that the highest percentage is aged 20-25 years as many as 14 respondents (29%) and the lowest percentage is aged 41-45 years as many as respondents 2 (4%)

### 3.1.1.2 Characteristics of Respondents Based on Education

Table 3.2 Characteristics of Respondents Based on Education at the Anggrek Peterongan Jombang Posyandu

No	Education	Amount	Percentage (%)
1	S1	5	10
2	SMA	25	52
3	JUNIOR HIGH SCHOOL	14	30
4	SD	4	8
<b>Total</b>		48	100

Source: Primary data

Based on table 3.2, it can be seen that the largest percentage of respondents with high school education was 25 respondents (52%) and the lowest percentage with elementary school education was 4 respondents (8%)

### 3.1.1.3 Characteristics of Respondents by Occupation

Table 3.3 Characteristics of Respondents Based on Occupation at Posyandu Anggrek Peterongan Jombang

No	Work	Amount	Percentage (%)
1	IRT	34	71
2	Self-employed	5	10
3	civil servant	4	8
4	Private	3	7
5	Student	2	4
<b>Total</b>		48	100

Source: Primary data

Based on table 3.3 it can be seen that the largest percentage of respondents with jobs as housewives is 34 respondents (71%), while the lowest percentage of respondents with jobs as students is 2 respondents (4%)

### 3.1.1.4 Characteristics of Respondents Based on Information

Table 3.4 Characteristics of Respondents Based on Information at Posyandu Anggrek Peterongan Jombang

No	Information	Amount	Percentage (%)
1	Get	40	83
2	Never get	8	17
<b>Total</b>		48	100

Source: Primary data

Based on table 3.4 it can be seen that out of 40 respondents (83%) had received information about exclusive breastfeeding

### 3.1.1.5 Characteristics of Respondents Based on Information Sources

Table 3.5 Characteristics of Respondents Based on Sources of Information at Posyandu Anggrek Peterongan Jombang

No	Resources	Amount	Percentage (%)
1	Midwife	10	21
2	Integrated Healthcare Center	31	65
3	RS	3	6
4	TV	4	8
<b>Total</b>		48	100

Source: Primary data

Based on table 3.5, it can be seen that 31 respondents (65%) received information about exclusive breastfeeding.

### 3.1.1.6 Characteristics of Respondents Based on Supplementary Feeding in Children Aged 0-6 Months

Table 3.6 Characteristics of Respondents Based on Supplemental Feeding at the Anggrek Posyandu Peterongan Jombang

No	Additional food	Amount	Percentage (%)
1	Give	23	48
2	Don't give	25	52
<b>Total</b>		48	100

Source: Primary Data

Based on table 3.6 it can be seen that 23 infants (48%) were given additional food at the age of 0-6 months

### 3.1.1.7 Characteristics of Respondents Based on Giving Additional Drinks to Children Aged 0-6 Months

Table 3.7 Characteristics of Respondents Based on the Provision of Additional Drinks at the Anggrek Posyandu Peterongan Jombang

No	Additional Drinks	Amount	Percentage (%)
1	Give	15	31
2	Don't give	33	69
<b>Total</b>		48	100

Source: Primary data

Based on table 3.7 it can be seen that 15 infants (31%) were given additional drinks at the age of 0-6 months

## 3.1.2 Specific Data

### 3.1.2.1 Exclusive breastfeeding

Table 3.8 Distribution of Exclusive Breastfeeding to Children Aged 6 Months to 2 Years at Posyandu Anggrek Peterongan Jombang

No	Exclusive breastfeeding	Amount	Percentage (%)
1	Not giving exclusive breastfeeding	40	83
2	Exclusive breastfeeding	8	17
<b>Total</b>		48	100

Source: Primary data

From table 3.8 it was found that 8 respondents (17%) gave exclusive breastfeeding and 40 respondents (83%) did



not give exclusive breastfeeding.

### 3.1.2.2 DDTK Assessment in Children Aged 6 Months to 2 Years

Table 3.9 Distribution of DDTK Assessments in Children Aged 6 Months to 2 Years at the Angrek Posyandu Peterongan Jombang

No	DDTK assessment	Amount	Percentage (%)
1	Normal (S)	21	44
2	Doubt (M)	19	40
3	Deviation (P)	8	16
<b>Total</b>		48	100

Source: Primary data

From table 3.9 it is found that the DDTK assessment in children aged 6 months to 2 years in the normal category is 21 respondents (44%), the doubtful category is 19 respondents (40%) and the deviation category is 8 respondents (16%)

### 3.1.2.3 The Relationship between Exclusive Breastfeeding and Children Aged 6 Months to 2 Years at Posyandu Angrek Peterongan Jombang in 2011

Table 3.10 Cross-tabulation of exclusive breastfeeding with children aged 6 months to 2 years at Posyandu Angrek Peterongan Jombang

Independent Dependent		DDTK Assessment in Children Aged 6 Months to 2 Years						Total	
		S		M		P			
		F	%	F	%	F	%	F	%
<b>Breastfeeding Exclusive</b>	<b>Give</b>	8	17	0	0	0	0	8	17
	<b>No give</b>	13	27	19	40	8	17	40	83
<b>Total</b>		21	44	19	40	8	17	48	100

Source: Primary data

Based on table 3.10, it shows that there are 8 respondents (17%) in the category of exclusive breastfeeding with a DDTK rating according to age. 0 respondents (0%) with a doubtful DDTK assessment and 0 respondents (0%) with a deviation DDTK assessment. The category of not giving exclusive breastfeeding was 13 respondents (13%) with age-appropriate DDTK ratings, 19 respondents (40%) with doubtful DDTK ratings and 8 respondents (17%) with irregular DDTK ratings.

After calculating using statistical tests *Mann Whitney U* with the help of a computer with a significance level of  $\alpha < 0.05$ . The test results show a significance value of 0.001, i.e.  $0.001 < 0.05$  means  $H_1$  accepted  $H_0$  rejected, which means there is a significant relationship between exclusive breastfeeding and the DDTK assessment.

### 3.2 Discussion

From the results of the research on the Relationship between Exclusive Breastfeeding and DDTK Assessment in Children Aged 6 Months to 2 Years at the Angrek Posyandu Peterongan Jombang in 2020, this chapter will describe a discussion which includes:

### 3.2.1 Exclusive breastfeeding

From a research conducted on mothers with children aged 6 months to 2 years at Posyandu Anggrek Peterongan Jombang in 2020. It is known that exclusive breastfeeding in the category of giving exclusive breastfeeding was 8 respondents (17%) and the category not giving exclusive breastfeeding was 40 respondents. (83%).

From the above data it can be seen that exclusive breastfeeding is still very low, while mothers who do not give exclusive breastfeeding are very high. The causal factors as obtained from the general data are age characteristics. Where in general the age of the respondents was still very young, namely between the ages of 20-25 years as much as 29%. From this age it can be concluded that the mother's experience of exclusive breastfeeding is likely to be lacking.

This can also be seen in the educational characteristics of the respondents. The average respondent with high school education is 52%. Higher education means that the knowledge obtained is also higher or the level of understanding obtained is better, and this will affect the behavior of exclusive breastfeeding which will later affect the results of the percentage of exclusive breastfeeding. This statement is in accordance with the statement that experience is the best teacher, meaning that experience is a source of knowledge, or that experience is a way to obtain true knowledge (Notoatmodjo, 2010).

General data on job characteristics shows the percentage of 71% of respondents as housewives. Respondents who are not working should have more opportunities to provide exclusive breastfeeding than respondents who are working, but in reality the percentage of respondents who are not working is higher than the respondents who are working. This can be caused by several factors including family support and lack of information. Table 4.4 shows that the percentage of mothers who received information about exclusive breastfeeding was quite high, namely 83%. Will but seen from the fact that there are still many respondents who get information about the importance of exclusive breastfeeding do not give exclusive breastfeeding to their babies. This is because the application of the results of obtaining point information is not implemented properly. The application of the results of obtaining information is very important, because exclusive breastfeeding itself is very important for babies. In accordance with the opinion of pediatricians, obstetricians, nurse midwives, even baby milk manufacturers, agree that breast milk is the best food and the best food delivery system for babies as well as the best for mothers (Indiarti, 2008). WHO, UNICEF and the Ministry of Health of the Republic of Indonesia through SK Menkes No. 450/Min. Kes/SK/IV/2004 dated 7 April 2004 has established recommendations for exclusive breastfeeding for 6 months, in the recommendation it is explained that to achieve optimal growth and development and health babies must be given exclusive breastfeeding for 6 months (Kodrat Laksono, 2010).

### 3.2.2 DDTK Assessment in Children Aged 6 Months to 2 Years

Based on table 4.9, the assessment of DDTK in children aged 6 months to 2 years in the normal category is 21 respondents (44%), the doubtful category is 19 respondents (40%) and the deviation category is 8 respondents (16%).

From the data obtained there are still children with deviant development, all of which should be according to the child's age. This is caused by the lack of sensitivity of respondents to early detection of child growth and development. For example, in research, children aged 1 year have been able to run small or children have been able to assemble cubes or children can speak fluently, but in reality children cannot do that. So it is hoped that all mothers will be able to assess the development of their children, which is often called Early Detection of Growth and Development. In terms of This is in accordance with the statement about several ways to monitor the growth and development of babies, one of the earliest is to see how children can recognize someone, meaning that children are able to make social contact at the age of 1-2 months, when children are invited to talk, children laugh happily. The baby's interpretation when he sees an object and whether he tries to take the object often occurs when the baby is 4-5 months old. Meanwhile, visual abilities combined with fine motor skills at the age of 1 year can be seen from the ability to speak (Indiarti, 2008).

In addition, the respondents who only attended high school education were still low at 52% and the mindset of the respondents was still immature where the average age was 20-25, namely as much as 29%. That way the knowledge of mothers about how to assess children's development according to age is very minimal. Meanwhile, according to a developmental psychology figure Havighurst, there are several developmental tasks that must be considered by mothers, namely learning to eat solid food, learning to walk, learning to talk, learning to control the disposal of body waste, learning differences in sex roles, preparing to read, learning to distinguish between right and wrong, began to develop conscience. The ability to speak at least fulfills two skills, namely the ability to capture messages and convey messages. Sensory development is by lifting the body, kicking, rocking, moving the fingers, chattering and rolling (Marimbi Hanum, 2010). Meanwhile, according to Alimul Aziz in his book states that development in children includes fine motor development, gross motor development, language development and behavioral development or social adaptation (Hidayat Alimul Aziz, 2009).

### 3.2.3 The Relationship Between Exclusive Breastfeeding and DDTK Assessment at Anggrek Peterongan Health Center, Jombang

Based on table 4.10 of the statistical test results *Mann Whitney U* showed that there was a relationship between exclusive breastfeeding and DDTK assessment in children aged 6 months to 2 years.

It can be concluded that exclusive breastfeeding plays an important role in child development. From the data



obtained, a percentage of 83% of respondents did not give exclusive breastfeeding, even though it is highly desirable for mothers to give exclusive breastfeeding to babies up to 6 months of age for baby development with age-appropriate results, based on research results obtained data 44% of children with development according to age, 40% of children with developmental doubts, 16% of children with developmental deviations, not giving exclusive breastfeeding with 40% dubious developmental results and 17% deviations. This is because many respondents did not provide exclusive breastfeeding, in fact many respondents provided additional food and drinks. As well as the number of respondents who think that giving additional food and drinks to babies does not have a negative impact. In accordance with a study which states that giving MP-ASI too early has a negative impact on health and there is no positive impact on the development and growth of infants (Kodrat Laksono, 2011). In research, the amount of composition of breast milk is still sufficient for growth and development for babies if breast milk is given properly and correctly until they are 6 months old. However, in reality 60% of babies under 4 months old have received formula milk (Kristiyanasari Weni, 2009).

Several factors that influence child development are genetic and environmental. In the environment it is explained that what plays an important role in the progress of child development is nutrition. For babies before 6 months, a healthy food pattern is breastfeeding (Marimbi Hanum, 2010). Breast milk contains the nutrients needed for the growth and development of infants (Sudarti, et al, 2010).

#### 4. CLOSING

##### 4.1 Conclusion

Based on the results of the research and discussion above, several conclusions can be drawn as follows:

- 4.1.1 From the research results it was found that there were still many mothers who did not give exclusive breastfeeding, namely those who did not give exclusive breastfeeding as many as 40 respondents (83%) and respondents who gave exclusive breastfeeding as many as 8 respondents (17%).
- 4.1.2 Based on the DDTK assessment, it was found that most of the children's assessments were doubtful, as many as 19 respondents (40%) and deviations as many as 8 respondents (16%).
- 4.1.3 Based on research on the relationship between exclusive breastfeeding and DDTK assessment after testing *Mann Whitney U* with the help of SPSS with a significant level  $\alpha < 0.05$  and  $P = 0.001$  which means there is a relationship between exclusive breastfeeding and DDTK assessment in children aged 6 months to 2 years at Posyandu Angrek, Peterongan District, Jombang Regency.

##### 4.2 Suggestions

###### 4.2.1 For Further Researchers

Increasing knowledge about research, statistics and research methodology to obtain more satisfactory research results and increase literature so that research results will be truly supported by supporting theory.

###### 4.2.2 Land Sharing

Counseling and supervision on exclusive breastfeeding until the child is 6 months old must be carried out thoroughly, and in more detail the benefits and disadvantages of implementing exclusive breastfeeding.

###### 4.2.3 For Educational Institutions

Complementing the library facilities so that it can support the research process properly and optimally.

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