

# Relationship Early Initiation of Breastfeeding with Exclusive Breastfeeding: A Case-control Study

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**Submission date:** 18-Aug-2022 04:58PM (UTC+0800)

**Submission ID:** 1883880645

**File name:** artikel-Relationship\_Early\_Initiation.pdf (110.02K)

**Word count:** 2687

**Character count:** 14930

# Relationship Early Initiation of Breastfeeding with Exclusive Breastfeeding: A Case-control Study

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## ABSTRACT

**Background:** Efforts to reduce infant mortality and prevention of malnutrition are breastfeeding. Breastfeeding is designed specifically for human infants and is the best nutrition than other alternatives breastfeeding for babies from birth and continuing until at least 6 months of age who have been recommended by the World Health Organization, the American Academy of Pediatrics, and the Sustainable Development Goals.

**Materials and Methods:** The study was observational analytic study using a case-control approach. The respondents were mothers with infants aged 6-12 months. Population of cases are mothers to provide exclusively breastfeeding, whereas control population are mothers to provide non-exclusive breastfeeding.

**Results:** The correlation analysis shows that early initiation of breastfeeding was not associated with the success of exclusive breastfeeding in Community Health Centre of Moropelang and Karangembang with *P* value of 0,292 (*P* > 0.05).

**Conclusion:** Although there was no correlation between the early initiation of exclusive breastfeeding but does early initiation of breastfeeding will make mothers exclusively breastfeed because the early initiation of breastfeeding can help accelerate spending breast milk is the baby's sucking stimulates the posterior pituitary gland to secrete oxytocin. Under the influence of oxytocin, the cells around the alveoli to contract issued through the milk duct system into the baby's mouth and ensured the continuity of spending the next breast milk.

**Key words:** Early initiation of breastfeeding, Exclusive breastfeeding, Midwife at village

## INTRODUCTION

The World Health Organization (WHO), in 2002, reported that the infant mortality and under-five infants (54%) caused by malnutrition. This is related to feeding practices that are less precise in infants and young children.<sup>1</sup> Infant mortality rate in East Java, in 2014, amounted to 26.66/1000 live births, whereas the target of the National Medium Term Development Plan 2010-2014 was 24/1000 live births and the Millennium Development Goals in 2015 when it was 23/1000 live births.<sup>2</sup> Infant mortality rate (reported) in Lamongan 2014 is 1/1000 live births.<sup>3</sup>

One of the efforts to reduce the infant mortality rate and prevention of malnutrition are breastfeeding. Breastfeeding is designed specifically for human infants and is the best nutrition from other alternatives.<sup>4</sup> Mother's Milk is for babies from birth and continuing until at least 6 months of age who have been

recommended by the WHO and the American Academy of Pediatrics,<sup>5</sup> called breastfeeding exclusive if babies given breast milk without additional other liquids. Based on the Ministry of Health no. 450/Menkes/SK/IV/2004, it stated that breast milk is the best food for babies because it contains nutrients most suitable for the growth and development of infants. Established that breastfeeding exclusively for babies in Indonesia from birth up to 6-month-old baby and recommended continued until the child is 2 years old by providing appropriate additional foods.<sup>6</sup> In addition to containing nutrients, breast milk provides benefits in terms of physiological, medical, psychological, social, economical, and environmental.<sup>7</sup> If the mother does not give breast milk, then these benefits will not be obtained both for the mother, the baby, and for the environment.

There are currently efforts to increase the use of breast milk has become a global destination.<sup>8</sup> In the Ministry of Health,

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Submission: 06-2016; Peer Review: 07-2016; Acceptance: 08-2016; Publishing: 09-2016

in Indonesia, indicators in "Clean and Healthy Behaviours" established by the Health Promotion Center in the year 2011, One of which is exclusive breastfeeding. Sustainable Development Goals, the second objective is to end hunger that has a target in the year 2030 is expected to put an end to all forms of malnutrition, including achieving international targets in 2025 for the reduction in stunting and wasting among children under five as well as address the nutritional needs of adolescent girls, pregnant and lactating women, and the elderly.<sup>9</sup>

It stated that the success of breastfeeding is not something that comes by itself, but it is a process that needs to be taught.<sup>8</sup> At the time of childbirth, early initiation of breastfeeding can affect exclusive breastfeeding.<sup>10,11</sup> Qualitative studies in one of the health centers in Solok of West Sumatra to the midwives and maternal shows a lack of facilitation and quality of early initiation of breastfeeding performed by midwives. Midwives recognize the early initiation of breastfeeding no skin contact between mother and baby because the baby is given to the mother in a state already wrapped, and they generally never give milk aids to babies with indication when in 2 h, breast milk has not come out (of the fear of hypoglycemia). This is not in accordance with the procedures specified normal delivery care.<sup>12</sup>

Research conducted in India and Sub Blimbing District of Paciran Lamongan, stating that the skin-to-skin contact or skin contact improves successful breastfeeding<sup>13</sup> and the competence of the baby to suckle there is the effect of early initiation of breastfeeding on the incidence of diarrhea through the success of breast milk exclusively.<sup>14</sup> Suction by the baby immediately after birth can help accelerate breast milk expenditure and ensure continuity of spending breast milk.<sup>8</sup>

Number of infants fed breast milk exclusively in the area Community Health Centre of Moropelang in 2012, 2013, and 2014; there were 197 babies (37.36%) of the total of 528 infants were examined, 355 infants (68.93%) of the total of 515 infants were examined, and 425 infants (59.11%) of the total of 719 infants were examined. Number of infants fed breast milk exclusively in the area of Puskesmas Karangembang in 2012 and 2013, there are no data on the profile, and in 2014, there were 129 infants (100%) of a total of 129 infants were examined.<sup>3</sup> Based on minimum service standards stipulated by the Ministry of Health through the Minister of Health No. 1457/Menkes/SK/X/2003 on minimum service standards for health care in district/town, targets infants received breastfed exclusively as much as 80% in 2010. However, until 2014, Community Health Centre of Moropelang could not reach the target of national minimum service standards which has been set. The importance of exclusive breastfeeding for the baby, the mother, and the environment, the analysis of early initiation of breastfeeding relationship by giving exclusive breast milk needs to be analyzed.

## MATERIALS AND METHODS

This type of research is an analytic observational study design that uses a case-control study design to analyze the relationship between early initiation of breastfeeding exclusive. The population in this study were mothers of infants aged 6-12 months were recorded in Community Health Centre of Moropelang and Karangembang, Lamongan. Research conducted in Community Health Centre of Moropelang and Karangembang, Lamongan, East Java Province when the

study of the proposal to data collection began in February-July 2016.

Population of cases are mothers with babies aged 6-12 months who provide breast milk exclusively, while control population are mothers with babies aged 6-12 months are on a non-exclusive breast milk. The sample in this study consisted of a sample of cases and controls. Determining a sample size large sample using the formula (Lemeshow), sample cases are mostly mothers with babies aged 6-12 months who provide breast milk exclusively by 24, whereas the control sample were mothers who had infants aged 6-12 months are on non-exclusive breast milk for 36. Hence, the overall sample size is 60 respondents.

The sampling technique in this research is using simple random sampling. Each has an equal chance of being selected as samples for research in accordance with the inclusion and exclusion criteria. The research variables consisted of a dependent variable that the success of exclusive breastfeeding and the independent variables that early initiation of breastfeeding.

The type of data in this study is primary data and secondary data. Primary data are data obtained directly from respondents through interviews using a questionnaire guide/list of questionnaires that have been made by researchers. While the secondary data are data concerning the performance data is preliminary data that exclusive breast milk taken from profile Lamongan district health office, Community Health Centre of Karangembang and Moropelang.

## RESULT

Early initiation of breastfeeding categorized into two, namely, the yes and not doing early initiation of breastfeeding. The research results obtained indicate the majority of women do early initiation of breastfeeding a total of 56 (93.33%) with most distributions on a non-exclusive breastfeeding mothers number of 35 (97.22%) and the number of mothers exclusively breastfed 21 (87.50%) (Table 1).

The analysis showed that there was no significant association between early initiation of breastfeeding with the success of breastfeeding exclusively ( $P = 0.292$ ), but in the case group (exclusive breastfeeding) can be seen that perform early initiation of breastfeeding can be significant in the success of breastfeeding exclusively.

## DISCUSSION

The results showed that there is no relationship of early breastfeeding initiation to the success of exclusive breastfeeding, this is because the majority of women do early breastfeeding

**Table 1:** Relationship early initiation of exclusive breastfeeding in the Community Health Centre of Moropelang and Karangembang, Lamongan 2016

Early initiation	n (%)			P
	Exclusive breastfeeding	Non-exclusive breastfeeding	Amount	
Yes	21 (87.50)	35 (97.22)	56 (93.33)	0.292
No	3 (12.50)	1 (2.78)	4 (6.67)	
Amount	24 (100)	36 (100)	60 (100)	

initiation (93.3%) in the group of breast milk exclusively and non-exclusively, the rest do not do early breastfeeding initiation (6.67%). three of mother that do not understand the reason midwife did early breastfeeding initiation and one mother did not do early initiation of breastfeeding because the baby asphyxia. Early breastfeeding initiation is a procedure in maternity care midwives normal done. The midwife did early breastfeeding initiation must be contained contraindications that may go unnoticed by the mother (not asked by the mother).

An incorrect understanding of knowledge is also seen in the questionnaire that has been given by the researchers that cannot affect the baby sucking milk production (11.7%). The movement of milk from the alveoli (where milk is secreted by an extrusion process of the cell) to the mouth of a baby is an active process in the breast. This process depends on the let-down reflex or the milk ejection reflex. These reflexes are primarily a response to the baby's sucking. Suckling stimulates the posterior pituitary gland to secrete oxytocin. Under the influence of oxytocin, the cells around the alveoli to contract, secrete milk through duct system into a baby's mouth.<sup>2</sup> Although with a delay of breastfeeding for several days, lactation can still be initiated starting because prolactin levels remain high, although the breast is not used, at least for the first week. Prolactin seems more important to start lactation than sustainability. When lactation continues, prolactin response to suckling is reduced, and the displacement of breast milk is thrust milk production.

It is known as a result of whey protein in breast milk can inhibit the synthesis of building blocks of breast milk. These proteins accumulate in the breast when breast milk pile up and cause a negative feedback control on the sustainability of breast milk. The loss of this autocrine inhibitory factor inhibitor (sometimes referred to as the feedback inhibitor of lactation) by removing the breast milk, which allows the production of breast milk can be increased again. It is due to this mechanism occurs locally so that each breast can function independently. In addition, it is also the cause of slowing production of breast milk when the baby gradually, not suckle from the breast. If necessary, milk production can be increased again by more frequent feeding infants with breast (e.g., due to illness). The research proves that the three mothers who did not give breast milk when rooming and a mother who does not perform breast milk can provide breast milk exclusively.

Judging from the group of mothers who provide breast milk exclusively, mothers with early initiation of breastfeeding can provide breast milk exclusively, according to the research conducted in India and Sub Blimbing District of Paciran Lamongan, stating that the skin-to-skin contact may increase success breastfeeding.<sup>13</sup> According to the theory Prawirohardjo,<sup>8</sup> the suction by babies immediately after birth can help accelerate spending breast milk and to ensure continuity of spending breast milk. The importance of early initiation of breastfeeding for the sustainability of breastfeeding and an operating unit of normal delivery care procedures, then for whatever reason

should not leave early initiation of breastfeeding except for medical reasons. Mothers who are not given early initiation of breastfeeding should be explained in detail the reasons not to do early initiation of breastfeeding.<sup>14</sup>

## CONCLUSION

Early breastfeeding initiation will make mothers exclusively breastfeed because breastfeeding initiation early on can help accelerate spending breast milk is the baby's sucking stimulates the posterior pituitary gland to secrete oxytocin. Under the influence of oxytocin, the cells around the alveoli to contract issued through the milk duct system into the baby's mouth and ensured the continuity of spending the next breast milk. Action early initiation of breastfeeding should be given by a midwife unless medically indicated.

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### HOW TO CITE THIS ARTICLE:

Mardhika A, Hidajat B, Basuki NH. Relationship Early Initiation of Breastfeeding with Exclusive Breastfeeding: A Case-control Study. *Int J Prevent Public Health Sci* 2016;2(3):1-3.

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