

## A CORRELATION STUDY OF BREAST MILK PRODUCTION AMONG INDONESIA MOTHER : THE ROLE OF BABY FORMULA MILK FEEDING HISTORY 0-6 MONTHS OLD

Nur Maziyah Hurin'in<sup>1</sup> , Kusno Ferianto<sup>2</sup>, Yuani Siti Marfuah<sup>3</sup>, Shofiana<sup>4</sup>

<sup>1,2</sup>Faculty of Nursing and Midwifery, Institut Ilmu Kesehatan Nahdlatul Ulama Tuban

<sup>3</sup>Midwifery Student, Institut Ilmu Kesehatan Nahdlatul Ulama Tuban

<sup>4</sup>Independent Midwifery Practice Kasih Bunda Ketapang Kalimantan Timur

Correspondence address: Jln. Diponegoro Kingking Tuban

Email : ziyah@iiknutuban.ac.id

### Abstract

**Background:** Continuity of breastfeeding can be influenced by social support from other people who interact with the mother so that the mother can feel physical and psychological comfort. The purpose was correlation between history beginning giving formula milk with breast milk production in Soko Tuban and Kendawangan Ketapang. **Method:** Cross sectional approach, correlational analytical research method. The population was all mother who has baby aged 0-6 months a total of 91 respondents, the sample is 74 respondents, the author used a simple random sampling technique. Data analysis using the contingency coefficient test. **Result:** The results show that the majority or 66.2% of babies aged 0-6 months were given formula milk, and less than half or 33.8% of babies aged 0-6 months were not given formula milk, the majority or 60.8% of mothers' breast milk production was not smoothly, and less than part or 39.2% of the mother's breast milk production was smooth and of the 49 babies who were given formula milk, more than part of 44 people (59.5%) were in the category of non-smooth milk production, while of the 25 babies who were not given formula milk less than half in the smooth breast milk production category as many as 24 people (32.4%). **Discussion:** From these two variables, after being tested statistically using the Contingency Coefficient test, a significance value =  $0.000 < \alpha(0.05)$  was obtained, which means that  $H_1$  was accepted, so that there was a correlation between the initial history of giving formula milk and the mother's breast milk production with a strong level of relationship with the p-Value. value 0.639. **Conclusion:** Researchers advise the public, especially mothers who have babies aged 0-6 months, that families should take the time to search for information. and come to health workers in order to seek information about The importance of exclusive breastfeeding so that families can support breastfeeding mothers in providing exclusive breastfeeding.

**Keywords:** formula milk, breast milk production, breastfeeding

### INTRODUCTION

Breast milk production is results stimulation breast hormone prolactin. Hormone This produced by glands anterior pituitary which is at the base brain. When pregnant, the hormone prolactin will increased, but breast milk is normal Not yet go out Because inhibited by high estrogen levels. Second and third day after giving birth, estrogen and progesterone levels fall drastic so that the influence of

prolactin is more size and mechanism this is what makes it a person's breast milk production Mother will be optimal in time about 72 hours after give birth to. Moment that's also where the alveoli start produces breast milk (Ariani, 2020). Insufficiency breast milk production causes baby lack intake nutrition and will impact bad for growth and development even on intelligence baby. If breast milk production is experiencing deficiency or



shortcomings, p This will cause baby lack intake nutrition and will impact bad for growth and development even his intelligence. If p That happen, actually national will threaten human resources in the future come. According to UNICEF, giving exclusive breast milk to babies is effective way For prevent death baby.

Scope breastfeeding exclusively in Southeast Asia as much as 30% (WHO, 2018). In Indonesia in 2018 it was known that scope babies who are exclusively breastfed as much as 65.16% ( Indonesian Ministry of Health, 2019). Based on data from Profile East Java 2018 is known that babies who are exclusively breastfed amounting to 76.98%. But scope the No in accordance with set targets The Indonesian government is 80%. From District Health Profile data Tuban amount babies who are exclusively breastfed in 2018 it reached 87.9%. Meanwhile at the Community Health Center Soko amount babies who are exclusively breastfed in 2020 it reached 59.2%, and experienced a decrease in 2021 of 38.9% from the Exclusive Breastfeeding Achievement Target of 45% ( Puskesmas Performance Assessment Data, 2022).

Mother's Milk (ASI) is nutrition natural best for baby Because contain energy and substance requirements during

six month First life baby. A Mother often experience problem in exclusive breastfeeding, one of them constraint mainly ie inadequate breast milk production fluent. This matter will be a causal factor low scope exclusive breastfeeding to baby new birth ( Wuladari & Handayani, 2011). This matter caused by several factor including culture give food, give additional formula milk because breast milk is not exit, stop exclusive breastfeeding Because baby or Mother sick, mother must work, and mother want to trying formula milk ( ALRahmad et al., 2018). Generally formula milk comes from from milk scheme that has *Whey* protein and *casein* content. Giving start formula milk with content sufficient energy and protein high at the start life can increase risk happen enhancement weight and obesity because amount intake excess energy protein needs and intake tall one can increase release insulin and *insulin-like growth hormones factor-1* (IGF-1) which is a hormone the can increase activity adipogenic and encouraging increase body weight ( Utami CT, 2016).

Some influences exclusive breastfeeding including age, parity, knowledge, education, attitudes, work, conditions health mother, social economics ( income), influence culture,

influence giving formula milk, IMD and support family (Aswita A, 2018). Support psychological from family close, esp woman like moms mother-in-law, sister woman or another friend who has experienced and successful in breast-feed as well as husband who understands that breast milk is good food For the baby is good support for success breastfeeding (Bahiyatun, 2013).

Success breast-feed can with start implementation of 10 (ten) steps going to success breastfeeding (LMKM) in hospitals and facilities service health others do activity labor. ten step the includes : 1) making policy about breastfeeding, 2) training staff service health, 3) IEC to Mother pregnant about benefits and management breastfeeding, 4) helps Mother for IMD in 60 minutes First childbirth, 5) help Mother method breastfeeding and maintaining breast-feed although Mother separated from the baby, 6) give only breast milk to baby new born except There is indication medical, 7) apply take care join Mother with the baby throughout time (24 hours), 8) recommend breast-feed in accordance request baby, 9) no give a pacifier to baby and 10) pushing formation group supporter breastfeeding and referring Mother to group the after go out from means service health. A number

of other supporting factors The success of breastfeeding is : 1) support husband, family and community, 2) support facility service health, 3) support policy (Indonesian Ministry of Health, 2016).

## METHOD

Researcher's approach use that is *cross-sectional*. Study *cross-sectional* is type research that emphasizes time measurement or observation of variable data independent and dependent only one time on one moment. On type this, variable independent and dependent assessed in a way simultaneously at a time moment, so No There is follow continued (Nursalam, 2016). On research This its population is all mother who has baby aged 0-6 months at the Community Health Center Soko Tuban, East Java, had 55 respondents and Long Bang Community Health Center, East Kalimantan, 36 respondents. Sample in research This part mother who has baby age 0-6 months specified with calculation big sample that is as many as 74 respondents. This taking sample done with write Name mother who has babies 0-6 months on a sheet paper and then placed in the box, stirred, then name taken means that which becomes respondents. So that amount whole sample is results calculation in accordance

formula , ie take number 74. In study This variable its independence is history beginning giving formula milk for babies age 0-6 months and variable dependent is breast milk production .

Research questionnaire takes the form of open and closed questions. *Open-ended* questions are questions that give respondents the freedom to answer (Notoatmodjo Soekidjo, 2015), to obtain the respondent's biodata (name, age, education, occupation and number of children or experience). Meanwhile, *closed ended questions are multiple types choice question* , namely a question that provides alternative answers and the respondent only chooses one of them according to his opinion (Notoatmodjo S, 2015). Documentation is recording from the results of data written in books ,

magazines, documents, regulations , minutes meetings , notes daily and so on ( Arikunto , 2018). Secondary data is the data obtained from document graphics ( tables , notes , minutes meetings , etc.), photos , films, video recordings , objects and others that can be enrich primary data ( Arikunto , 2018).

Statistical tests used For analyzing data is a statistical test *coefficient contingency* Because the variable is nominal. Statistic test *coefficient contingency* used For count or determine level connection or correlation between two research variable This use technique computerized SPSS 23.0 with meaning p : 0.05 means significant ( p ) below or The same with 0.05 then H 1 accepted . So that can concluded that There is real relationship between two variables studied

## RESULT

Table 1. Frequency Distribution of Initial History of Formula Milk Feeding in Babies Aged 0-6 months At the Community Health Center Soko Tuban

No	History of Formula Feeding	Amount	Percentage (%)
1.	Given	49	66.2
2.	No given	25	33.8
Total		74	100.0

Based on table 1 it is known that some big or 66.2% of babies aged 0-6 months given formula milk, and less from part or 33.8% of babies aged 0-6 months No given formula milk .

Table 2. Frequency Distribution of Mother's Breast Milk Production at Community Health Centers Soko Tuban

No	Mother's breast milk production	Amount	Percentage (%)
1.	Fluent	29	39.2
2.	No fluent	45	60.8
Total		74	100.0

Based on table 2, it is known that some big or 60.8% of the mother's breast milk production No smoothly , and less from part or 39.2% of the mother's breast milk production fluent .

Table 3 Cross Table of Relationship between Early History of Formula Milk Feeding in Babies Aged 0-6 Months With Mother's breast milk production at the Community Health Center Soko Tuban

Early History of Formula Milk Feeding	Breast milk production				Total		P- value
	No Fluent		Fluent		n	Percentage (%)	
	n	Percentage (%)	n	Percentage (%)			
Given	44	59.5	5	6,8	49	100	0,000
No given	1	1.4	24	32.4	25	100	
Amount	45	60.8	29	39.2	74	100	

Table 3 can explained that of 49 babies who were given more formula milk from some 44 people (59.5%) in category breast milk production does not smoothly , meanwhile of the 25 babies who did not given less formula milk from part in category smooth breast milk production as many as 24 people (32.4%).

From these two variables, after being tested statistically using the *Contingency Coefficient test* , the p-Value = 0.000 <  $\alpha(0.05)$ , so H1 accepted, which means H<sub>1</sub> is accepted, so there is a relationship between the Initial History of Formula Milk Feeding and Mother's Breast Milk Production at the Community Health Center Soko Tuban with a strong level of closeness relationship with value 0.639.

Table 4. Frequency Distribution of Initial History of Formula Milk Feeding in Babies Aged 0-6 months At the Community Health Center Soko Tuban

No	History of Formula Feeding	Amount	Percentage (%)
1.	Given	49	66.2
2.	No given	25	33.8
Total		74	100.0

Based on table 4 it is known that some big or 66.2% of babies aged 0-6 months given formula milk, and less from part or 33.8% of babies aged 0-6 months No given formula milk .

Table 5. Frequency Distribution of Mother's Breast Milk Production at Community Health Centers Soko Tuban

No	Mother's breast milk production	Amount	Percentage (%)
1.	Fluent	29	39.2
2.	No fluent	45	60.8
Total		74	100.0

Based on table 5, it is known that some big or 60.8% of the mother's breast milk production No smoothly , and less from part or 39.2% of the mother's breast milk production fluent .

Table 6 Cross Table of Relationship between Early History of Formula Milk Feeding in Babies Aged 0-6 Months With Mother's breast milk production at the Community Health Center Soko Tuban

Early History of Formula Milk Feeding	Breast milk production				Total		P- value
	No Fluent		Fluent		n	Percentage (%)	
	n	Percentage (%)	n	Percentage (%)			
Given	44	59.5	5	6,8	49	100	0,000
No given	1	1.4	24	32.4	25	100	
Amount	45	60.8	29	39.2	74	100	

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## DISCUSSION

Based on the research results, it was found that there was a relationship between the initial history of giving formula milk and the mother's breast milk production at the Soko Tuban and Kademangan Kalimantan Timur with a strong level of correlation with a correlation value of 0.639. One of the reasons for the smooth provision of exclusive breastfeeding is the desire of the breastfeeding mother herself. That matter in line with study previously that taking decision related intake nutrition given to babies it's with mom own , influence mother is very big in take decision For provide exclusive breastfeeding ( Ministry of Health , 2013). According to Afifah , 2007, one of the inhibiting factors exclusive breastfeeding is exposure promotion of formula milk. Frequent formula feeding carried out at BPS, RB and RS with

reason main because there's no breast milk yet come out and baby Still difficulty breastfeeding so that baby will cry when left just . Usually midwife will direct give advice For give formula milk. This will too give negative influence on confidence Mother that give formula milk is the most powerful thing For stop baby crying .

Formula milk is structured cow 's milk the nutrition changed like that appearance until can given to baby without give effect side . Reason use of cow's milk as material the default among other reasons how much milk you can get produced by breeders cow cash and price too relatively cheap . Although own arrangement good nutrition , but cow 's milk Very good only For child cow , no For baby . Therefore that , before used For food baby , arrangement formula milk nutrition is a must changed until suitable For baby . Because breast milk is food ideal baby so that chanç

made to the composition cow's milk nutrition must like that appearance until approach arrangement breast milk nutrition ( Siregar RD, 2019).

According to Regulation Government (PP) No. 33 of 2012 concerning giving Exclusive breast milk (ASI) , baby formula milk is milk which is special formulated as breast milk substitute for baby until 6 months old . Milk baby formula is a kind of “ food. ” special ” that can used by baby For replace breast milk or called substitute for breast milk (PASI). Formula milk or bottle milk It is structured cow 's milk the nutrition changed resemble Breast milk up to can given to baby without give rise to effect side .

The research results show obtained by 49 people (66.2%) stated give formula milk. Giving formula milk for babies 0-6 months because the mother does n't Work aged under 30 years who make Mother Afraid if breast-feed the baby so breast become loose , in mothers who don't Work However giving breast milk and not formula milk because Mother know that breast milk is the best nutrition compared to formula milk for babies . More from part working mother is farmers and traders , working mothers as farmer can still breast-feed

the baby in a way *on demand* because type work mother made it Mother can arrange time For Work or breast-feed the baby . Working mother also often think that when the baby must consume milk formula, then circumstances finance family will the more difficult . There are also only a number of working mother However No give breast milk to the baby and give the baby is on formula milk because working mother become employee the office that makes it Mother difficult breast-feed the baby in a way *on demand* .

Based on results research , shows exists mothers think that breast-feed will damage appearance so that Mother Afraid lost Power pull as a women , some Mother feel that breast milk only No Enough for the baby so that they giving formula milk, and some big Mother experience pressure mind in the moment breast-feed baby so that can urge Mother For reduce frequency and duration of breastfeeding the baby even No provide breast milk. Whereas with breast-feed will help grow bond psychology between mother and baby , brings a sense of security and calm , stimulating production Asi , as well facilitate breast milk. When condition This Keep going maintained until



condition baby 2 months old so He will seldom cry or fuss , growth and development will fast

## CONCLUSION AND SUGGESTION

Midwives must quality service with do monitoring all Mother to do regular breastfeeding exclusive as well as prevent giving formula milk for babies . Give motivation to family For do support to Mother breast-feed so that always provide exclusive breastfeeding.

## ACKNOWLEDGMENT

Thank you to the community health center which has been willing to provide facilities to conduct research and respondents who are willing to fill out the questionnaire

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