

BREASTFEEDING PRACTICES [POSITIONING, ATTACHMENT/LATCH-ON AND EFFECTIVE SUCKLING]: STUDI FROM MATERNAL AGE, PARITY, EDUCATION, MATERNAL OCCUPATION, BREAST DISEASES, GESTATION AND BIRTH WEIGHT IN SIDOARJO GENERAL HOSPITAL

Evi Rinata,^{1*} Putri Anjar Sari²

^{1,2} Universitas Muhammadiyah Sidoarjo

INFORMASI ARTIKEL:

A B S T R A C T

Diterima : September 2016
Disetujui :September 2017

korespondensi:
evi.rinata@umsida.ac.id

The scope of the exclusive breastfeeding in Indonesia based on basic health research (Riskesmas) in 2013 reached 30,2%, still far from target nationally by 80%. Based on research conducted in developing countries showed that infants were not breastfed would have a risk 6–10 times higher died in the first few months of life. This will impact the Infant Mortality Rate (IMR). The purpose of this research is to know the relation mother's age, parity, education, maternal occupation, breast diseases, gestation and birth weight to breastfeeding practices. This research uses analytic cross sectional design with the entire population of parturition and the maternal mother who came to breastfeeding her infant at Sidoarjo General Hospital in 14-27 July 2015. Using primary data with interviews and observations and also secondary data. Using the sampling probability sampling, simple random sampling technique. The number of samples as much as 45 nursing mothers from 51 populations. The results of the test statistic chi-square showed no relationship to maternal age with position ($p=0.929$) and bonding ($p=0.569$). There is no relationship to parity with position ($p=0.122$), but found a significant relationship between bonding with parity ($P=0.024$). Education is not associated with the position ($p=0.806$) and bonding ($p=0.595$). No relation to maternal occupation with position ($p=0.395$) and bonding ($p=0.329$). Breast disease significantly shows there is a relationship with position ($p=0.009$) and bonding ($p=0.000$). Gestational there is no relationship with bonding ($p=0.767$) and effectiveness of contact ($p=0.500$). There is no relationship of weight born by bonding ($p=0.754$) and effectiveness of contact ($p=0.519$). The conclusion of the research that is no relationship between maternal age, education, maternal occupation, gestation and birth weight with breastfeeding practices. There is a relationship between parity and breast diseases with breastfeeding practices.

Keyword : Attachment, breastfeeding practices, effective suckling, positioning

INTRODUCTION

Breastfeeding is a natural process. Nevertheless, in our current cultural environment, we do the natural thing is not always easy, so it needs knowledge and proper exercise (Roesli, 2013). The fact remains that there are 40% women who did not breastfeed her infants have experienced pain and swelling of the breast (Cunningham, 2009).

The scope of the exclusive breastfeeding in Indonesia based on basic health research (Riskesmas) in 2013 reached 30,2%, still far from national target by 80%. Based on research conducted in developing countries showed that infants were not breastfed would have a risk 6–10 times higher died in the first few months of life

(Henderson, 2009). This will impact the Infant Mortality Rate (IMR).

Based on Survey Demographic and Indonesian Health (SDKI) 2012 mention IMR 32/1.000 live births, down slightly compared to 2007 when 34/1000 live births. The figure is still far from the target of the Millennium Development Goals (MDG's) 2015 amounting to 23/1000 live births. The correct breastfeeding practices is how to give breastfed to the infant with bonding and maternal and infant position correctly (Vivian, 2011).

To achieve the success of breastfeeding needs knowledge about breastfeeding practices (Soetjingsih, 2013). Indicators in the process of breastfeeding include the effective position of mother and infant right (body positions), the right infant bonding (latch), the effectiveness of contact

the infant at the breast (effective sucking) (Mulder, 2006).

Research results Goyal et al (2011) suggest that the correct way to breastfeed can be affected by age, parity, maternal occupation, breast diseases, gestation and birth weight. Added by Riksani (2012) factors that affect how the right lactation, among others, lack of knowledge and information about breastfeeding, management of the hospital, which often do not enforce rooming, and not infrequently health facilities thus providing an infant formula to newborn. Data from the Center for Disease Control (CDC) in 2005 states that breastfeeding rates over low maternal educated under the high school level rather than maternal level of education higher.

Based on research (Scientific Paper) that was conducted by Dini Iflahah 2012 at Sidoarjo General Hospital obtained about 46,7% of nursing mothers to breastfeeding practices and 53,3% of the nursing mothers to wrong practices. Errors of nursing techniques is 53,3% due to the effectiveness infant's sucking. Other errors can also be caused when mothers stop breastfeeding process less careful (Maryunani, 2009).

The situation shows there are still many nursing mothers have not been able to the right techniques. Breastfeeding with the wrong technique cause problems such as nipples become chafed and breastfeeding not out optimally so that affects the production of breastfed subsequently reluctant to suckle (Vivian, 2011). This led to the necessity of breastfed the infant would be not enough. According to Riksani (2012) with the correct breastfeeding practices will encourage the secretion of breastfed to the maximum so that the success of breastfeeding can be achieved.

METHODS

This research is observational research with the cross sectional approach. This research was conducted to find out how the relationship between the maternal age, parity, education, maternal occupation, breast diseases, gestation, and birth weight with breastfeeding practices [positioning, attachment/latch-on and effective

suckling]: at Sidoarjo General Hospital as measured at the same time so that each subject of research observed one time only.

The population is this research is the entire mother parturition who are still admitted in the parturition with the criteria of having an infant, and the mother who comes to breastfeeding her infant who is being treated at the Neonatal Ward Sidoarjo General Hospital on 14-27th of July 2015 which amounted to as much as 51 nursing mother with 45 the samples. Sampling in this study using a probability sampling technique with simple random sampling.

This research consists of independent variable: maternal age, parity, education, maternal occupation, breast diseases, age of gestation and weight born. The dependent variable : breastfeeding practices.

The data collected using the checklist to track medical record and grading system for assessing breastfeeding practices. The data were analyzed using Chi-squared test was used as a significant test and the *p value* is less than 0.05 was considered statistically significant.

An observation made on the whole period of breastfeeding mothers 14-27 July 2015 and who have not already get information and training about the breastfeeding practices from a doctor or counselor of breastfeeding at Sidoarjo General Hospital. The first step before doing the observations tells the mother's research objectives and asks her to fill out and sign the Informed Consent sheet further observation breastfeeding technique practices including the position, bonding at the breast. The effective suckling is done for 5 minutes started when the nursing mother's position continued putting the infant to the breast when the infant has not yet been breastfed at earlier to infant do contacting. However, if the infant has already been breastfed, last for 1 hour, then the observations done when infants like to suckle and adjust the time infant.

RESULT AND DISCUSSION

Maternal characteristics

The study revealed that most of the mother's age between 20 and 35 years (77.8%), followed by mothers aged over >35 years (20.0%) and under 20 years (2.2%). (2.9%) and less bonding (11.1 %) among mothers aged 20-35 years and >35 years compared to other age groups (0.0-0.0% and 0.0-5.7%, respectively). However, no statistically significant relationship between the mother's age and wrong position ($p = 0.929$) and bonding ($p = 0.569$) of babies to the breast during feeding [Table 1].

The majority of mothers are multiparous (60.0%) and 40.0% were primipara. A good position (81.5%) and a good bonding (77.8%) majority is multiparous, while the position that less (5.5%) and less bonding (16.6%) majority is primipara. There is a statistically significant relationship found between parity and bonding ($p = 0.025$), but not found statistically significant relationship between parity and position ($p = 0.122$).

Most of the mother's education is a Senior High School (62.2%) followed by an educated mother of Junior High School (17.8%), College (11.1%) and Elementary School (8.9%). Wrong position (3.6%) and bonding (10.7%) majority is Senior High School. However, there is no significant relationship between education and position ($p = 0.833$) and bonding ($p = 0.595$).

Only 35.6% were working mothers and 64.4% were nonworking. There was poorer positioning among working mothers (6.2%) than nonworking (00.0%), poor attachment was more in working (12.5%) than nonworking (3.4%) mothers. However, there was no significant association between maternal occupation and position ($p = 0.395$) and bonding ($p = 0.329$).

Breast diseases such as cracked nipples, breast swelling and sore nipples are more associated with the (6.2%) and bonding (18.7%). The findings are very significant at $p = 0.009$ for position and $p = 0.000$ for bonding.

Tabel 1: Maternal characteristics

Characteristics	Position			Bonding (Latch-on)		
	Good N.(%)	Average N (%)	Less N (%)	Good N(%)	Average N(%)	Less N(%)
Maternal age						
<20 [n = 1 (2,2%)]	1 (100,0)	0 (0,0)	0 (0,0)	0 (0,0)	1 (100,0)	0 (0,0)
20-30 [n = 35 (77,8%)]	24 (68,6)	10 (28,6)	1 (2,9)	23 (65,7)	10 (28,6)	2 (5,7)
>30 [n = 9 (20,0%)]	7 (77,8)	2 (22,2)	0 (0,0)	6 (66,7)	2 (22,2)	1 (11,1)
Total (n = 45)	$\chi^2 = 0,872$ and $P = 0,929$			$\chi^2 = 2,931$ and $P = 0,569$		
Parity						
1 [n = 18 (40,0%)]	10 (55,5)	7 (39,0)	1 (5,5)	8 (44,4)	7 (39,0)	3 (16,6)
>1 [n = 27 (60,0%)]	22 (81,5)	5 (18,5)	0 (0,0)	21 (77,8)	6 (22,2)	0 (0,0)
Total (n = 45)	$\chi^2 = 4,201$ and $P = 0,122$			$\chi^2 = 7,401$ and $P = 0,025^*$		
Education						
ES [n = 4 (8,9%)]	4 (100,0)	0 (0,0)	0 (0,0)	3 (75,0)	1 (25,0)	0 (0,0)
JHS [n = 8 (17,8%)]	6 (75,0)	2 (25,0)	0 (0,0)	7 (87,5)	1 (12,5)	0 (0,0)
SHS [n = 28 (62,2%)]	18 (64,3)	9 (32,1)	1 (3,6)	15 (53,6)	10 (35,7)	3 (10,7)
College [n = 5 (11,1%)]	4 (80,0)	1 (20,0)	0 (0,0)	4 (80,0)	1 (20,0)	0 (0,0)
Total (n = 45)	$\chi^2 = 2,806$ and $P = 0,833$			$\chi^2 = 4,605$ and $P = 0,595$		
Maternal Occupation						
Working [n = 16 (35,6%)]	11 (68,8)	4 (25,0)	1 (6,2)	11 (68,8)	3 (18,7)	2 (12,5)
Not working [n = 29 (64,4%)]	21 (72,4)	8 (27,6)	0 (0,0)	18 (62,1)	10 (34,5)	1 (3,4)
Total (n = 45)	$\chi^2 = 1,858$ and $P = 0,395$			$\chi^2 = 2,222$ and $P = 0,329$		
Breast diseases						
Present [n = 16 (35,6%)]	7 (43,8)	8 (50,0)	1 (6,2)	4 (25,0)	9 (56,3)	3 (18,7)
Absent [n = 29 (64,4%)]	25 (86,2)	4 (13,7)	0 (0,0)	25 (86,2)	4 (13,7)	0 (0,0)
Total (n = 45)	$\chi^2 = 9,495$ and $p = 0,009^*$			$\chi^2 = 17,865$ and $p = 0,000^*$		

Note : n = number of mothers, *Significant ($p < 0.05$)

Infant characteristics

Most of the neonates were full term (95.6%) and only 4.4% were preterm. Only 27.9% of total full term babies had enough bonding is worse compared to preterm infants (50.0%). The figures for poor suckling were 20.3% among full-term babies and 50.0% of preterm babies. These findings are no statistically significant for bonding ($p = 0.767$) and effective suckling ($p = 0.500$) [Table 2].

Only 1 (2.2%) infants have a birth weight of less than 2.5 kg (low birth weight according the WHO

for developing countries) and the rest 97.8% infants weighed more than 2.5 kg. Less bonding (6.8%) and less suckling (29.6%) more in infants with low birth weight compared with the other groups (0.0% and 0.0%, respectively). There is no significant difference between the bonding with infant birth weight ($p = 0.754$) and effective suckling ($p = 0.519$).

Table 2: Infant characteristics

Characteristics	Bonding (Latch-on)			Effective suckling	
	Good No. (%)	Average No. (%)	Less No. (%)	Good No. (%)	Less No. (%)
Gestation					
<37 [n = 2 (4,4%)]	1 (50,0)	1 (50,0)	0 (0,0)	1 (50,0)	1 (50,0)
≥37 [n = 43 (95,6%)]	28 (65,1)	12 (28,0)	3 (6,9)	31 (72,1)	12 (27,9)
Total (n = 45)	$\chi^2 = 0,530$ and $P = 0,767$			$\chi^2 = 2,931$ and $p = 0,500$	
Birth Weight					
<2500 [n = 1 (2,2%)]	1 (100,0)	0 (0,0)	0 (0,0)	1 (100,0)	0 (0,0)
≥2500 [n = 44 (97,8%)]	28 (63,6)	13 (29,6)	3 (6,8)	31 (70,1)	13 (29,6)
Total (n=45)	$\chi^2 = 0,564$ and $p = 0,754$			$\chi^2 = 0,415$ and $p = 0,519$	

Note : n = number of infants, *Significant ($P < 0.05$)

In this study, the younger mothers (<20 years) have less bonding than with an older mothers, but age does not relate to the position and bonding, which is primarily required for effective breastfeeding. There is no statistically significant relationship between the mother's age with and position and infant bonding on breastfeeding. Similar findings were also reported by Goyal *et al* (2011) also reported that no statistically significant relationship between the mother's age and wrong position ($p = 0.238$) and bonding ($p = 0.662$) of infant on breastfeeding.

The results of other studies indicate that a majority (60%) of multiparous mothers had good position and bonding, which is a result of their prior experience. A similar studies from Goyal *et al* (2011) multiparous mothers had good position and bonding. Coca *et al* (2009) and Kronborg *et al* (2009) also stated that parity is significantly has a connection with the effectiveness of breastfeeding (position and bonding). However, Gupta *et al*

(2008) from North India does not find the existence of a significant relationship with statistics.

The present study indicates no statistically significant association between education with the position and bonding of infants on breastfeeding. Mothers with a college education background majority capable of breastfeeding with bonding and good position, it is because the information that was provided to health workers can be easily accepted. The levels of education will effect in giving a response, the more highly educated mothers will then provide a more rational response to the information.

Data from the Center for Disease Control (CDC) in 2005 states that breastfeeding rates over low maternal educated under the high school level rather than maternal level of education higher.

On the research data shows the majority of mothers do not work, and most are able to breastfeed her infant with a good positioning and bonding. Based on the results of Chi-Square test shows no relationship between maternal occupation with the bonding position on the practices of breastfeeding. The results of this research supported research Goyal et al (2011) stating there is no significant relationship between maternal occupation with positioning and bonding. Assuming researcher's work status had no effect on breastfeeding practices.

Our findings suggest that breast diseases such as cracked nipples, breast swelling, and sore nipples were significantly associated with position that are less important for bonding and the effectiveness of breastfeeding. Similar findings were also reported by Goyal et al (2011) stating that there is a statistically significant relationship between parity and position ($P = 0.028$) and bonding ($P = 0.002$). Coca et al (2009) reported that women whose infants were incorrectly positioned were 1.94 times the risk (95% CI 1006–3749) lead to nipple trauma compared with women whose infants were correctly positioned.

Another study conducted in Brazil by Coca et al (2009). Affirming that nursing mothers with swollen breasts are more likely to experience injury nipples (95% CI 4.48–33.78). In their studies of Porto Alegre, Brazil, Tait et al (2005). Nipple trauma is also identified as a disorder resulting from incorrect positioning and latching-on during breastfeeding. Another study from Brazil (Shimoda, 2005) reported that edema on the nipple and areola area that according the highest incidence of parity, the trauma was found in the primiparous nipple's women, which can be explained by the experience in breastfeeding practices.

This research indicates that full term (≥ 37 weeks of gestation) had less bonding and preterm infants (< 37 weeks of gestation) had less suckling. No statistically significant for bonding and effective suckling. Similar findings were also reported by Coca et al (2009) stating that it did not find any

association between weeks of gestation and strength of suckling.

We observed that infants with full birth weight has less bonding and less effective suckling. Kronborg et al (2009) and Coca et al (2009) did not find any association between birth weight and nipple trauma ($p = 0.41$ and $p = 0.22$, respectively). Goyal et al (2011) also reported that no significant difference between the birth weight of infants and bonding ($p = 0.136$) to the breast, but there is a statistically significant difference observed for the effective suckling ($p = 0.025$).

Our study was able to demonstrate the relationship between mother–infant characteristics and positioning, bonding and effective suckling in breastfeeding. Nevertheless, the use of a larger sample size may make it possible to identify the other risk factors.

CONCLUSION

Almost entirely mothers lactation at RSUD Sidoarjo are aged 20-35 years. Most parity of nursing mothers at Sidoarjo General Hospital is a multipara, the maternal occupation does not work, and the state of the normal breast. Gestation age almost entirely in Sidoarjo General Hospital is ≥ 37 weeks and birth weight ≥ 2500 grams.

Most nursing mothers in Sidoarjo General Hospital techniques suckle with the bonding position and the effectiveness suckling. Most of the errors in nursing techniques contained on the effectiveness of the infant's suckling.

The conclusions of this research, there is no relationship between maternal age, education, maternal occupation, gestation and birth weight with breastfeeding practices. There is a relationship between parity and breast diseases with breastfeeding practices. Some other factors that can affect the success of breastfeeding among other types of childbirth, knowledge, information from health workers and infrastructure.

ACKNOWLEDGEMENTS

The authors acknowledged to Departement of Midwifery, Faculty of Health Sciences, Muhammadiyah University of Sidoarjo, and all staff of Sidoarjo General Hospital for helping this study. Also thanks to all the mothers & infants who participated in this research.

REFERENCES Agency for Health Care Research and Development, (2013), *Basic Health Research (Risksdas 2010)*. Jakarta: The Ministry of Health of The Republic of Indonesia.

Central Bureau of Statistic, BKKBN, Kemenkes RI, Measure DHS. 2012. *Demography and Health Survey Indonesia 2012*. Calverton, Maryland, USA.

Cunningham, G. et al. 2009. *William Obstetrics Quick Start Guide 21 Editions*. Jakarta: EGC.

Coca KP, Gamba MA, Silva RS, Abrão AC. 2009. *Factors associated with nipple trauma in the maternity unit*. J Pediatr (Rio J), 85, 341-5.

Dewi, Vivian NL and Sunarsih, Tri. 2011. *Midwifery Care in The Mother Childbirth*. Jakarta: Salemba Medika.

Gupta M, Aggarwal AK. 2008. *Feasibility Study on IMNCI Guidelines on Effective Breastfeeding in a Rural Area of North India*. Indian J Community MED., 33, 201-3.

Goyal. AS, Banginwar, Ziyu F, and Toweir AA. 2011. *Breastfeeding practices: Positioning, bonding (latch-on) and effective suckling – A hospital-based study in Libya*. J Family Community MED. 2011 May-Aug; 18(2): 74–79.

Henderson P. WHO Press 20 Avenue Appia, 1211. Geneva 27, Switzerland: WHO Press, World Health Organization. 2009. *Infant and young child feeding: Model chapter for textbooks for medical students and allied health professionals. Session 1- The importance of infant and young child feeding and recommended practices*; pp. 5–6.

Iflahah, D. 2012, *The Correct Breastfeeding Practices in Terms of Age, Parity, Maternal Age, Gestation, and Birth Weight in RSUD Sidoarjo*. Midwifery Siti Khodijah Academies Muhammadiyah of Sepanjang-Sidoarjo.

Kronborg H, Væth M. 2009. *How Are Effective Breastfeeding Technique and Pacifier Use Related to Breastfeeding Problems and Breastfeeding Duration.*, 36, 39-42.

Maryunani, A. 2009. *Orphanage in The Mother During Childbirth (Postpartum)*. Jakarta: Trans Info Medika.

Mulder, J. 2006. *The Association of Women's Health, Obstetric and Neonatal Nurses AWHONN. A Concept Analysis Of Effective Breastfeeding*, 332-339.

Riksani, R. 2012. *The Miracle of Breastfeeding*. Jakarta: Dunia Sehat.

Roesli, U. 2013. *Exclusive Breastfeeding*. Jakarta: Trubus Agriwidya.

Shealy, K.R., Li,R., Benton, D.S. & Grummer, S.L.M., (2005) *The CDC Guide for breastfeeding interventions*, Center for Disease Control and Prevention. US Department of Health and Human Services, USA

Shimoda GT, Silva IA, Santos JL. 2005. *Characteristics, frequency and factors present in nipples damage occurrence in lactating women.*, 58, 529-34.

Soetjningsih. 2013. *Breast Milk's Guide for Health Workers*. Jakarta: EGC.