BREAST FEEDING TECHNIQUE EDUCATION TO ONSET OF LACTATION OF CAESAREAN SECTION-DELIVERED MOTHER

Pendidikan Kesehatan Tentang Teknik Menyusui Terhadap Onset Laktasi Ibu Persalinan Seksio Sesarea

Misroh Mulianingsih, Winda Nurmayani M, Harlina Putri Rusiana
STIKES Yarsi Mataram
Email: harlinarusian@gmail.com

ABSTRAK

Pendahuluan. Perempuan yang menjalani proses persalinan dengan *sectio sesarea* akan mengalami onset laktasi yang lebih lambat dibandingkan dengan yang menjalani persalinan normal karena proses pembedahan akan menghambat proses produksi ASI. Tujuan penelitian ini adalah mengidentifikasi efektifitas pendidikan kesehatan tentang teknik menyusui terhadap onset laktasi ibu persalinan seksio sesarea di RSUD Kota Mataram. **Metode.** Jenis penelitian adalah quasi eksperimen. Penelitian dilakukan di RSUD Kota Mataram. Jumlah Sampel 24 intervensi dan 24 kasus kontrol. Variabel bebas pendidikan kesehatan tentang teknik menyusui, variabel terikat onset laktasi ibu persalinan seksio sesarea. Teknik pengambilan sampel dengan menggunakan *consecutive sampling*. Analisis data yang digunakan univariabel, bivariabel dengan menggunakan *chi-square*. **Hasil.** Terdapat hubungan yang bermakna pendidikan kesehatan tentang teknik menyusui terhadap onset laktasi ibu persalinan seksio sesarea pada kelompok intervensi dengan nilai *chi square* = 0,026 dan tidak terdapat hubungan yang bermakna pendidikan kesehatan tentang teknik menyusui terhadap onset laktasi ibu persalinan seksio sesarea pada kelompok kontrol dengan nilai *chi square* = 0,563. **Diskusi.** Terdapat pengaruh pendidikan kesehatan pada ibu yang diberikan intervensi seperti penyuluhan dari pada ibu dengan kontrol yang hanya diberikan leaflet terhadap onset laktasi ibu setelah selesai menjalani proses persalinan seksio sesarea.

Keyword : Pendidikan Kesehatan, Onset Laktasi, *Sectio Sesaria*

ABSTRACT

Introduction. The woman that did her delivery by caesarean section would have slower onset of lactation compared to normal delivery, because surgical procedure would resist breast milk production process. This study aimed to analyze the effectivity of breastfeeding technique education related to lactation onset of caesarean section-delivered mother in Mataram City General Hospital. **Method.** This research was a quasi-experimental research. This research was held in Mataram City General Hospital. There were 24 intervention and 24 control samples. The independent variable was breastfeeding technique education, and the dependent variable was onset of lactation of caesarean section-delivered mother. Other variables measured were age, occupation, education, number (times) of giving birth, and caesarean section delivery. Sample collection technique was using consecutive sampling and data analysis was using univariable and bivariable chi-square. **Result.** There was significant relation between breastfeeding technique education and onset of lactation of caesarean section-delivered mother in the intervention group (*chi square score* = 0.026), but there was no significant relation between breastfeeding technique education and onset of lactation of caesarean section-delivered mother in the control group (*chi square score* = 0.563). **Discussion.** There was significant effect of breastfeeding education for mother that was given intervention, like counseling, compared to control group that was only given leaflet related to mother's Onset of lactation after caesarean section delivery.

Keyword : Breastfeeding Education, Onset of lactation, Caesarean Section

INTRODUCTION

Globally, World Health Organization (WHO) and United Nations Children (UNICEF) have urged about giving exclusive breastfeed for newborn baby. Although there were a lot of policies to support breastfeeding, for examples in Indonesian Ministry of Health Policy Number 450/Menkes/SK/IV/2004 about administration of exclusive breastfeed

and updated with Indonesian Government's Policy Number 33,2012 about administration of exclusive breastfeed, in reality showed that there were still a lot of mothers that didn't give their babies exclusive breastfeed. Indonesian Health and Demographic Survey stated that in 2012, there were only 50.8% of 0–1 month babies that were given exclusive breastfeed. The other 31.5% were given breast milk and another type of milk, and 9.6% babies were

given breast milk and breast milk-replacing food (ICF 2012).

Edmond KM (2006) stated that 16% of newborn death could be prevented if all the babies were given breast milk in the first day of life, and the number would increase into 22% if it was given in their first hour. Statistics Indonesia and ICF (2012) wrote that Nusa Tenggara Barat (NTB) was one of the provinces in Indonesia which had a high neonatal death rate, which was 33/1000 births. NTB was placed third most after North Maluku and Papua.

According to Scott JA, Binns CO (2007) which were doing research in United States, they reported that longer Onset of lactation was caused by the mother who didn't do early Onset of lactation. Onset of lactation defined as mother's perception about when the breast milk came in, or the beginning time to increase breast milk until breast milk first came out, which marked with harder, heavier, more swollen breast until colostrums came out (Hruschka DJ, Sellen DW, Stein AD 2003). Early administration of breast milk was recommended because there were a lot of benefits for baby and mother's health. From birth, babies had reflexes to defend their life. First week after delivery was the critical time to immediately breastfeed. On the first and second day after delivery, usually a little breast milk was produced. But it would increase in the second to third day in response to progesterone hormone-lowering and increasing of prolactine and oxytocin hormones. In this time, mother and her baby would learn how to breastfeed (Dewey KG, Nommsen-Rivers LA, Heinig MJ 2003). In the first hour, baby would learn to breastfeed by sucking mother's nipple and prepared the mother to start produce colostrums (Gupta A 2007).

Preliminary study result in Mataram City General Hospital which was owned by Mataram City Government stated that the hospital has already implemented "mother and baby-cared hospital", but unfortunately this hospital didn't implement early breastfeeding initiation maximally, especially for babies who birth from caesarean section.

Women who are undergoing the process of childbirth by cesarean section will experience the onset of lactation slower than those undergoing a normal delivery because the surgery will inhibit the process of milk production (Hildebrandt H 1999). In the developing countries the onset of lactation effect on breastfeeding practices, especially at the onset of lactation more than 3 days, it relates to the provision of feeding prelacteal thus affect the duration of breastfeeding (Pérez-Escamilla R 2001). Infants whose onset of lactation more than 3 days will usually get formula or prelacteal feeding that will affect breastfeeding (Hruschka DJ, Sellen DW, Stein AD 2003).

METHODS

This was an experiment research with control group. In this research there were two groups, intervention group and control group. Intervention group was a group that has been given breastfeeding education, and, in contrary, control group hasn't been given breastfeeding education. Measurement was done to compare Onset of lactation in control group and intervention group. This research was held in the delivery room and childbed room in General Hospital. Research populations were 91 mothers that had babies and gave birth with caesarean section indication. From research population, the researcher took 48 samples, divided to 24 interventions and 24 controls as samples. Sampling was done by consecutive sampling, as a part of random sampling technique.

The independent variable was breastfeeding technique education, and the dependent variable was onset of lactation of caesarean section-delivered mother. Other variables were age, occupation, education, number (times) of giving birth, and caesarean section delivery history. Data taken in this research was sourced from primary and secondary data in patient's medical record. This research used univariable, bivariable analysis with chi-square statistical test, with significance score $p < 0.05$.

RESULT**Table 1.** Effect of The Techniques of Breastfeeding, Age, Education, Occupation, Parity and History Caesarean Section of The Onset of Lactation Mothers Before and After Being Given Counseling in Postpartum Room Mataram City General Hospital 2015

No	Characteristics of respondents	Onset of lactation										P intervention	P control
		intervention					Control						
		<24 hour		≥24 hour		<24 hour		≥24 hour					
		N	%	n	%	n	%	n	%				
1	Breastfeeding technique										0.026	0.776	
-	Good	20	83.3	0	0	1	4.2	0	0				
-	Enough	2	8.3	1	4.2	15	62.5	1	4.2				
-	Less	1	4.2	0	0	6	25	1	4.2				
2	Age										0.003	0.520	
-	<20	1	4.2	1	4.2	4	16.7	1	4.2				
-	20-35	18	75	0	0	14	58.3	1	4.2				
-	>35	4	16.6	0	0	4	16.7	0	0				
3	Education										0.63	0.742	
-	Not attending school	0	0	0	0	1	4.2	0	0				
-	Does not graduated elementary school	0	0	0	0	1	4.2	0	0				
-	Elementary school	6	25	0	0	4	16.7	0	0				
-	Junior high school	2	8.3	1	4.2	7	29.2	1	4.2				
-	Senior high school	6	25	0	0	6	25	0	0				
-	College	9	37.5	0	0	3	12.5	1	4.2				
4	Job										0.388	0.449	
-	Working	10	41.6	0	0	5	20.8	0	0				
-	Not working	13	54.2	1	4.2	17	70.8	2	8.3				
5	Parity										0.026	0.793	
-	Primiparity	2	8.3	1	4.2	10	41.7	1	4.2				
-	Multiparas	20	83.3	0	0	8	33.3	1	4.2				
-	Grande multiparas	1	4.2	0	0	4	16.7	0	0				
6	History of caesarean section										0.01	0.026	
-	Never	22	91.7	0	0	21	87.5	1	4.2				
-	Ever	1	4.2	1	4.2	1	4.2	1	4.2				

Table 1 showed that there was significant effect of breastfeeding education for mother in the intervention group compared to the control group, which were only given leaflet, related to lactation onset with $p\text{-value} = 0.026$ in the intervention group and $p\text{-value} = 0.776$ in the control group. This concluded that lactation onset would be faster in mother who was given a direct breastfeeding education rather than the mother who just had given leaflet as their knowledge source.

Other variables like education and occupation weren't take much effect in intervention group's lactation onset. Besides, age status, number (times) of giving birth, and caesarean section delivery history took effect significantly on lactation onset with $p\text{-value} = 0.03$, $p\text{-value} = 0.026$ dan $p\text{-value} = 0.01$ in the intervention group. In the control group, variables like age, education, occupation, and number (times) of giving birth weren't significantly take effect on the lactation onset, but only caesarean section delivery history took effect with $p\text{-value} = 0.026$.

DISCUSSION

According to analysis result, we could be informed that there was significant effect of breastfeeding education in the intervention group compared to control group, related to mother's lactation onset with $p\text{-value} = 0.026$ in intervention group and $p\text{-value} = 0.076$ in the control group. This means that lactation onset would be faster to come out in mother who was given direct breastfeeding education rather than the mother who just been given leaflet. Hruschka DJ, Sellen DW, Stein AD (2003) once said that lactation onset was related with breast milk production and breast milk-replacing food introduction before breast milk came out. Maternal which didn't understand well about breast milk production process and had a slower lactation onset (more than three days post-partum) would lost their confidence for producing breast milk more, so they wouldn't be confident that their babies will survive with least colostrums production in the first day after birth. This loss of confidence would

take effect on the slower lactation onset, so it would increase risk for the mother to give breast milk replacing food with formula milk or other liquid-based food. This pre-lacteal administration would decrease frequency and duration of the baby for sucking breast milk and will increase the risk of early termination of breastfeeding infants.

This finding was suitable with the theory by Hector D, King L, Webb K (2015) that stated that there were three factors that influenced breastfeeding practice, with one of them is individual factor. Individual factor was a factor that related directly to mother's will to breastfeed, which consisted of knowledge, skills, experience for taking care baby, mother and baby's health status, and natural interaction between baby and mother from the beginning. Mothers which were taught directly and were guided about breastfeeding technique, and also practiced it with mannequin about the correct breastfeeding technique before they started delivery process tended to have a better knowledge than mothers who were just only given leaflet and study by themselves. Besides of individual factor, group factor was also influenced to the lactation onset in caesarean section-delivered mother. This is related to the situation were mother and her baby had their right and support maternal to directly breastfeed themselves. Whereas including the level of environmental groups, hospitals and health care facilities, home environment and a place to live, work place environment and community environment. Environmental hospitals and health facilities with regard to the policy in relation to hospital practices and procedures such as rooming, direct skin contact of mother and infant after birth, feeding techniques and the support of ongoing maintenance. Mataram City General Hospital is a hospital Mother and Baby. Babies born by cesarean section 1 first hour separated with his mother. After 1 hour and there is no infant's complication immediately brought to the mother for breast-feed. So the faster infants in direct contact with the mother's nipple discharge more quickly process breastmilk (Hector D, King L, Webb K 2015).

Based on the results of the analysis of the influence of maternal age are given intervention with control mothers who were given leaflets to the onset of lactation mothers with $p = 0.03$ in the intervention group and $p = 0.520$ in the control group. The highest maternal age in women is 20–35 years. Pregnancy in the age range of 20–30 are generally healthier because of the physical conditions of women in top shape. The uterus is considered to be strong enough to provide protection to the fetus. The ovaries also produce good quality oocytes. Powered by conditions other reproductive organs are also in top shape, pregnancy at the age of 20–30 can be lived to the optimum. Mentally women in this age range are generally more mature will be better prepared to care for and maintain the pregnancy. 30–35 years of age is actually a transition period. Pregnancy at this age can still be accepted as long as the condition of the body and maternal health, including nutrition, in good condition. Another positive value, generally mentally and financial ability is getting better. But after age 35 (nearly 40), pregnancy is classified at high risk pregnancy. In this age period, maternal mortality and infant increase. Because of these factors is not recommended to undergo pregnancy mothers over the age of 40 years.

Based on the analysis there is the effect of maternal parity given intervention with mothers who controls only given leaflets against the onset of lactation mothers with $p = 0.026$ in the intervention group and $p = 0.793$ in the control group. This means a faster onset of lactation will be out on the mother multiparous than primiparous mother. It is associated with childbirth experience. Primiparous mothers giving birth for the first time while the mother multiparous > 2 times childbirth. Dewey KG, Nommsen-Rivers LA, Heinig MJ (2003) stated that the exit of breastmilk in 1–2 days after delivery is very little then milk production will increase in 2–3 days after delivery. After the release of the placenta during delivery, there will be a decrease in the hormones progesterone and estrogen in the blood and because of the influence of suction on the

breast and nipple, triggering the formation of prolactin, which stimulates milk production. Anxiety maternal milk production will be insufficient for the needs of the baby are also associated with the duration of breastmilk come out. Another factor that also influences is the parity status and method of delivery (Grajeda R 2002).

According to Hurst NM (2007) Factors that can affect the onset of lactation, namely; primigravidae, psychosocial stress/pain, obesity, diabetes, hypertension, long labor process and difficult, Caesarean section, feeding prelacteal, late first suckling episode, feeding a low frequency, use of hormonal contraception in the first week postpartum. Stress at delivery is associated with increased levels of cortisol in the mother, maternal cortisol levels higher primiparous than multiparous mothers. High levels of cortisol cause the onset of lactation longer. According to Sakha K (2005) multiparous mothers have experience in caring for their babies than mothers with primiparity, it is very influential in breastfeeding in early delivery so that will have an impact on the onset of lactation.

Based on the analysis there is a history of Caesarean section maternal influence, both for the mother given intervention with mothers who controls only given leaflets against the onset of lactation mothers with $p = 0.01$ in the intervention group and $p = 0.026$ in the control group. This means that women who have never had experience with Caesarean section delivery did not have a problem with the onset of lactation even if for the first time through the process of delivery by Caesarean section. It is associated with differences in the stress levels of mothers who first undergo delivery by Caesarean section with mothers who already have experience of cesarean section deliveries. This is consistent with the theory presented by Grajeda R (2002) levels of cortisol in the mother primiparous tend to be higher than the levels of cortisol multiparas at the time of delivery it is caused by the stress of labor.

Stress during labor can be reduced by improving the quality of health education in

the mother prior to delivery. With a given health education in the mother prior to delivery will happen to drop in cortisol levels in pregnant women so that the onset of lactation will be faster come out. In addition to health education that will increase knowledge of the mother. According to Hector D, King L, Webb K (2015) one of the factors that influence breastfeeding practices is a factor group, the group of factors relates to the situation where the mother and baby to get their rights and support for breastfeeding mothers. Whereas including the level of environmental groups, hospitals and health care facilities, home environment and housing, the environment in which to work and community environment. Environmental hospitals and health facilities relation to the practice and procedure such as rooming, direct skin contact of mother and infants after birth, feeding techniques and the support of continuous treatment. It means the mother is given the opportunity by the hospital after giving birth and the baby's condition is normal and there are no complications, the mother and the baby are doing rooming although before rooming-in mother and baby are separated for one hour to observe the state of the mother and infants. At the time of rooming mothers motivated by health workers continue to directly introduce the baby to the mother's nipple, so that even if the mother Caesarean section birth mother had no difficulty in breastfeeding their babies this will have an impact on the onset of lactation.

CONCLUSION

Breastfeeding education can increase onset of lactation of caesarean section-delivered mother. Age, number (times) of giving birth and caesarean section delivery history took effect on lactation onset in the intervention group, but education and occupation weren't influenced.

RECOMMENDATIONS

It could was very important to increase breastfeeding education quality for maternal,

especially for mothers who were indicated to do caesarean section delivery. It was also important to increase quality of antenatal care in the central health services. Besides that, family must be involved, especially husband as the closest one, to improve exclusive breastfeed administration. At last, health centers, like hospital with their polyclinic, delivery room, until childbed room, needed to form a team for routinely gave breastfeeding education for maternal.

REFERENCES

- Dewey KG, Nommsen-Rivers LA, Heinig MJ, C.R., 2003. Risk Factors For Suboptimal Infant Breastfeeding Behavior, Delayed Onset of Lactation, and Excess Neonatal Weight Loss. *Pediatrics*, 112(3), pp. 607–619.
- Edmond KM, 2006. Delayed Breastfeeding Initiation Increases Risk of Neonatal Mortality. *Pediatrics*, 117(3), pp. 380–386.
- Grajeda R, P.-E.R., 2002. Stress During Labor and Delivery Is Associated with Delayed Onset of Lactation among Urban Guatemalan Women. *The Journal of Nutrition*, 132(10), pp. 3055–3060.
- Gupta A, 2007. *Initiating Breastfeeding Within One Hour of Birth: A Scientific Brief*, India: UNICEF.
- Hector D, King L, Webb K, H.P., 2015. Factors Affecting Breastfeeding Practices. Applying a Conceptual Framework. *New South Wales Public Health Bulletin*, 16(4), pp. 52–55.
- Hildebrandt H, 1999. *Maternal Perception of Lactogenesis Time: A Clinical Report*, Hruschka DJ, Sellen DW, Stein AD, M.R., 2003. Delayed Onset of Lactation and Risk of Ending Full Breast-Feeding Early in Rural Guatemala. *The Journal of Nutrition*, 133(8), pp. 2592–2599.
- Hurst NM, 2007. Recognizing and Treating Delayed or Failed Lactogenesis II. *Journal of Midwifery & Women's Health*, 52(6), pp. 588–594.
- ICF, 2012. *International. Survei Demografi dan Kesehatan Indonesia*, Maryland, USA.

Pérez-Escamilla R, C.D., 2001. Validity and Public Health Implications of Maternal Perception of The Onset of Lactation: An International Analytical Overview. *The Journal of Nutrition*, 131(11), pp. 3021–3024.

Sakha K, B.A., 2005. *The Onset Time of Lactation After Delivery*,

Scott JA, Binns CO, W.H., 2007. Predictor of Delayed Onset of Lactation. *Maternal & Child Nutrition*, 3(3), pp. 186–193.