Determinant Factors of Early Initiation of Breastfeeding in Postpartum Sectio Caesarean Mothers in Aceh, Indonesia

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Abstract: Sectio caesarean births encounter several dilemmas for both mothers and their new born babies. Some of the problems are related to the breastfeeding process during the postpartum period. Mothers and babies may have less skin-to-skin contact immediately after the birth and mothers may not be able to breastfeed their babies within the first hour after giving birth. The purpose of this study was to analyze the factors associated with performing Early Initiation of Breastfeeding (EIB) in postpartum sectio caesarean mothers. This is a retrospective quantitative survey with 312 postpartum mothers with sectio caesarea. The study uses a total sampling technique and data collection was conducted by using combination of standard and modified questionnaires related to factors associated with EIB. Data analysis employed descriptive and inferential statistics. The results showed that maternal complication was the most associated factor with performing the EIB in postpartum mothers with sectio caesarea (p-value 0.0001). The lower the rate of complications of mothers, the better the implementation of EIB in postpartum mothers with sectio caesarea (OR 40,780). Based on the study results, it is suggested to postpartum mothers with sectio caesarea to continue performing exclusive breastfeeding and the health workers especially the nurses and midwives should implemented adequate nursing care plan in reducing complications to postpartum mothers with sectio caesarea.

Keywords: Early Initiation of Breastfeeding, Postpartum, Sectio Caesarea, Aceh, Indonesia.

INTRODUCTION

Sectio caesarea is the main surgical intervention introduced in the late nineteenth century to save the lives of women and their babies from life-threatening complications of pregnancy and childbirth (Begum et al., 2017). Population-based of sectio caesarea rates are considered as an indicator of the process for monitoring maternal health progress in the world. World Health Organization (WHO) recommends that the population-based of sectio caesarean rate should be between 10% and 15%. But the rate of sectio caesarea has continued to increase throughout the world over the last few decades above the levels which considered medically necessary. Sectio caesarea is associated with short and long-term risks that can be related to maternal, infant and subsequent pregnancy health (Betrán et al., 2016).

Sectio caesarea rate in Indonesia has also increased during the last few years. Based on the data from Basic health research of Indonesian Ministry of Health, it is known that the prevalence of sectio caesarea in Indonesia in 2018 is 6.8% and only 4.2% have medical indications for sectio caesarea. In addition, it is also known that the estimated total cost spent for a sectio caesarea in Indonesia is approximately US $ 19,532,824 per year (Gibbons et al., 2018). The indications of sectio caesarea in Indonesia mostly because of bleeding, preeclampsia, uterine tears, closed birth canals and premature rupture of the membranes. However, the trend to perform sectio caesarea mostly based on unmedical indications. Several reasons beyond the medical indications of sectio caesarea in Indonesia are due to fear of pain, aesthetic reasons, the desire to give birth on a certain date and the lifestyle change within social lives (Suryati, 2012).

Data on sectio caesarean rate in Aceh Province in general are varied. However, sectio caesarean data conducted at the Regional General Hospital of dr. Zainoel Abidin in Banda Aceh considered as the largest referral hospital in the Province and experienced an...
increasing number of referral from 30% in 2013 to 54% in 2017. Meanwhile, based on data from the Health Center of the study setting. in 2018 there were 312 mothers reported underwent sectio caesarea during childbirth. The sectio caesarean trend in Aceh Province is increasing where generally the trend of young mothers in the province wants to experience giving birth with less pain. Furthermore, the patience of childbirth assistants is decreasing in performing the natural birth process which takes up to 24 hours (Andalas, 2016).

The direct impact of sectio caesarea on EIB is the exposure of some of the drugs and anesthetic techniques which allow the lack of awareness of the mother that affected on performing EIB immediately after the baby is born. Some drugs used during anesthesia could also suppress the baby's sucking behavior by reducing oxytocin. The second effect is the route of providing anti-pain drugs to the mother both oral and intravenous which enables quickly enter the baby's bloodstream through perfusion of the placenta in seconds to several minutes and cause a reduced ability to suck the baby after birth (Kuguoglu, Yildiz, Tanir, & Demirbag, 2012).

Another direct impact of sectio caesarea if complications occur in both mother and baby, they are unable to perform skin to skin contact immediately after the birth and will be treated separately. Mother and baby skin to skin contact is very important in order to perform EIB. Skin to skin contact where the baby is placed on the top of the mother's chest is very important in order to allow the baby smelling the mother's breast. Thus, the baby is trying to reach it in order to get the breast milk (Guala et al., 2017).

STUDY METHOD

This study utilized a descriptive, cross-sectional retrospective survey design. A total sampling of 312 postpartum sectio caesarean mothers was conducted in one of the districts in Aceh as the study setting. The data were collected by utilizing several questionnaires related to factors that associated with EIB based on literature search. The factors of mothers’ health status, complications, the babies’ health status and the role of the health staff were conducted by utilizing the researcher-made questionnaires. Meanwhile, the factor of depression in mothers was utilized with the Edinburgh Postpartum Depression Scale (EPDS) questionnaires and the EIB questionnaires’ items were modified from the Operational Standard of EIB in Hospital (Indonesian Standard). All the questionnaires items were validity and reliability tested which resulted the items of mother’s health status (r = 0.87), complications (0.92), babies’ health status (r = 0.95), the role of health staff (r = 0.96), EPDS in Indonesian language (r = 0.92) and the EIB items (r = 0.96).

The data were encoded in Excel file and processed by the Statistical Package for the Social Science (SPSS). Then it would be analyzed with univariate, bivariate, and multivariate in order to perform analysis Frequency count, percentage, mean, standard deviation (SD) and logistic regression to perform the association between variables. Ethic approval obtained from ethical committee of Nursing Faculty, Universitas Syiah Kuala. Informed consent was also obtained prior to data gathering.

RESULTS

Respondents Characteristics

The analysis from respondent’s characteristics shows that 85.6% are between 20 - 35 years old with middle education level (60.3%). Several mothers are employees (50.3%) and have 2 children (78.5%). Most mothers had been treated more than once during pregnancy (82.7%) and 83.3% are multigravida mothers. Furthermore, the majority of mothers (95.8%) never undergo abortion, around 84.6% have once of sectio caesarea and conducted as medical indication (91.7%). Lastly, some mothers (56.7%) have done once of early initiation of breastfeeding.

<table>
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<th>No</th>
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<tr>
<td>1</td>
<td>20 - 35 years old</td>
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<td>85.6</td>
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<tr>
<td>2</td>
<td>36 - 45 years old</td>
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<tr>
<td>2</td>
<td>Middle</td>
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<td>60.3</td>
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<tr>
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<td>Elementary</td>
<td>26</td>
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<td>245</td>
<td>78.5</td>
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<tr>
<td>2</td>
<td>&gt; 2 Children</td>
<td>67</td>
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<td>258</td>
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<tr>
<td>2</td>
<td>1 time</td>
<td>42</td>
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Factors which related to Early Initiation of Breastfeeding (EIB)

Table 2 displays 231 postpartum mothers with sectio caesarea have good health status and 54.5% of them perform the EIB. Meanwhile, only 81 mothers with sectio caesarea have poor health status and surprisingly 91.4% also perform the EIB. The result from Chi-Square test showed that most factors have p-value = 0.000 < 0.05 except the postpartum depression factor. Thus, it can be concluded that all factors were correlated with performing the EIB, apart from postpartum depression factor which was not correlated with performing the EIB on postpartum mothers with sectio caesarea (p-value = 0.000 > 0.05).

Table 3. Binary Logistic Regression test with stepwise methods shows that mothers’ complication factor is a dominant predictor related to performing EIB on postpartum mothers with sectio caesarea (OR: 40.780); after controlled by mothers’ health status (OR: 0.188) and health worker role (OR: 0.036). Mothers’ complication related to implementation of EIB on postpartum with sectio caesarea is up to 40,780 times or 41 times.

DISCUSSION

This study investigated the factors that influence the implementation of EIB in postpartum sectio caesarea.
mothers. In order to improve performing the EIB a good health condition is needed in postpartum sectio caesarean mothers and assessment of maternal health status is useful for measuring the success of EIB (Zubaran & Foresti, 2013). In this study, the maternal health status was also supported by age factors and parity status of the mothers. Most mothers in this study aged between 20-35 years whom considered as productive and healthy ages for mothers to give birth and breastfeed. Moreover, the majority of mothers in this study have never experienced miscarriage which supported the well-being of mothers during pregnancy, childbirth and postpartum period.

Despite prior studies in other countries indicating that postpartum depression can greatly affect mothers who undergo sectio caesarea (Smith, 2010); postpartum sectio caesarean mothers in this study concluded that depression is not a factor that inhibits performing the EIB. Only few of mothers reported experiencing postpartum depression in this study and it affected the result of conducting the EIB. Postpartum depression in this study is closely related to maternal socio-demography such as the level of postpartum maternal education. Most postpartum sectio caesarean mothers have sufficient educational level which considered having lower risk factors for postpartum depression. Socio-demographic (e.g. education) is one of the main factors that affected postpartum depression; the higher the education the lower risks of mothers having postpartum depression (Clout & Brown, 2015).

This study, postpartum sectio-caesarean mothers without complications were more likely to perform the EIB. Previous studies suggested that maternal postpartum hemorrhage may be a risk factor for inadequate breast milk production (Chessman et al., 2018) and may experience anemia such as weakness and fatigue which affected performing the EIB (Dewey et al., 2012). Complications of postpartum by sectio caesarea in this study are also related to maternal age factor. Most mothers in this study aged between 20-35 years which considered as healthy age for mothers to become pregnant and give birth. Most complication during childbirth occur in women aged younger than 20 and older than 35 which reported having more risk in pregnancy and childbirth (Cavazos-Rehg et al., 2015). Moreover, all the mothers in this study never experienced any miscarriage which increasing the risk of maternal or neonatal complications (Al-Shaikh, Ibrahim, Fayed, and Al-Mandeel, 2017). Furthermore, maternal complication also considered related to poor antenatal care (ANC) during pregnancy period (Biks, Tariku, and Tessema, 2015). Most mothers in this study having the antenatal care more than once which is based on the WHO recommendation to have at least 4 ANC visits during pregnancy and childbirth.

This study also revealed that postpartum sectio caesarean mothers with healthy infants are more likely performing the EIB. Most mothers tend to be worry to harm their sick baby by avoiding the EIB. Moreover, the unhealthy infants tend to be separately from their mother mothers in order to be treated in infants care unit. Therefore, it reduce the chance for mothers in performing the EIB. Babies born with sectio caesarea and separated from their mothers are also often given formula milk as the first food, although sometimes supplementary feeding is needed to prevent hypoglycemia, or when the baby loses a lot of weight after birth and does not get back quickly, or to test the baby's ability to suckle (Caglar et al., 2016). Moreover, Caglar et al., (2016) found that weight loss and hypernatremia in infants were known to be associated with delays in conducting the EIB. These conditions are factors that delay breastfeeding after sectio caesarea and can be related to maternal confidence and desire to breastfeed (Kuguoglu et al., 2012). Study Dewey et al., (2012) found that delayed onset of lactation and early lactation success were known to be associated with primiparity, sectio caesarea, treatment of labor and non breast milk infants. Therefore, supplementary feeding must be avoided by providing breastmilk as primory or suplementary food for infants, which can inhibit subsequent breastfeeding (Lauwers & Swisher, 2015).

This study disclosed that postpartum sectio-caesarean mothers whom supported by skillful and excellent health staff are more likely to perform the EIB. Hospitals and maternity clinics have an important role in the success of the EIB in mothers during childbirth, especially mothers with sectio caesarea. The role of nurses and midwives are very important in providing support for mothers in performing the EIB. The health staffs play a role in proving care to mothers and their newborn babies through “rooming-in” implementation. Rooming-in or joint care is recommended by WHO and UNICEF (2017) as part of the Baby Friendly Hospital Initiative (BFHI) program to promote the EIB. In addition to its benefits in EIB, rooming-in treatment increases maternal and infant attachment. Mothers who stay in the room can more often see, connect and talk with their babies. Encouraging maternal baby contact from birth can significantly increase the EIB and reduce the incidence of failure for infant development. The rooming-in system supports more mother and baby body contact so there is a positive relationship between rooming-in care and the emotional stability of the baby (Kamble & Bhalerao, 2017). Furthermore, Radzyminski and Callister (2015) mentioned that health workers have a significant relationship to the initiation rate and duration of breastfeeding. Mothers hope that health workers have the knowledge and skills to help them with common breastfeeding problems. Nurses are closely related to the success rate of breastfeeding both in breastfeeding initiation and duration. Nurses’ knowledge about breastfeeding and their attitudes about breastfeeding are predictors of true supportive behavior.

This study bears certain limitations that may pose threats to the validity and reliability of findings. Firstly, limited literature conducted in order to develop the questionnaires which can affected the richness of the questionnaires’ items. Secondly, this study addressed only several factors that influence the EIB implementation which can be further to be explored. However, despite these limitations, this study has provided empirical evidence on the limited information on factors that influence the EIB in Indoensia particularly in Aceh Province.
CONCLUSION

Despite the learning gaps and areas needing improvement identified in this study, the results showed that several factors affected the performance of EIB from mothers and their newborn babies. It can be concluded that in order to achieve successful EIB implementation in postpartum mother with sectio caesarea, it is necessary to improve maternal health status, reduce complications, maintain the infants’ health and increase the role of health workers to promote the EIB. Maternal health condition post sectio caesarea requires support from health workers to bring the baby closer to the mother for the start of IMD. This action makes the mother feel very comfortable and increase their desire to perform the breastfeeding at the early stage.

REFERENCES


