Contribution of Early Breastfeeding Initiation to Onset of Lactation in Postpartum Mothers and Breastfeeding in Midwives Independent Practice

Luh Mertasari 1*, Made Juliani2

1 Universitas Pendidikan Ganesha, Singaraja, Indonesia
2 Universitas Pendidikan Indonesia, Bandung, Indonesia
*Corresponding author: luh.mertasari@undiksha.ac.id

Abstract

After the baby is born, the production and release of breast milk do not occur immediately because there is still a transition of hormones in the mother’s body. Early Breastfeeding Initiation (IMD) is crucial in stimulating breast milk production. This study aimed to analyze the contribution of IMD to the onset of lactation. This type of research is pre-experimental with a one-shot case study design. The population in the implementation of this study were all couples of post-partum and breastfeeding mothers and their babies who gave birth and met the inclusion criteria. This study used a sample of 36 people. Collecting data was carried out using the observation and post-test methods. The Spearman rank correlation test analyzed data. The analysis results show a p-value of 0.000 0.05 and a correlation coefficient of 0.601, so H0 is rejected, and H1 is accepted. It shows a strong, significant, and unidirectional contribution between the implementation of IMD and the onset of lactation. The results of this study can then be used as a reference for further breastfeeding guidance strategies both in the third trimester of pregnancy and in the postpartum period.

Keywords: Early Breastfeeding Initiation, Onset of Lactation, Midwife Independent Practice

1. INTRODUCTION

Breast milk is the best nutrition for babies, starting immediately after birth until the first two years of life (Ambarwati et al., 2013; Rahmawati & Prayogi, 2017). The transition of hormones from pregnancy to post-partum hormones causes breast milk not to come out smoothly immediately after the baby is born. It often causes mothers to make wrong decisions about breastfeeding (Chahyanto & Rosita, 2013; Sriningsih, 2011). Sufficient milk production occurs in the first three days after delivery due to the second lactogenesis stage. The inhibition of the second stage of lactogenesis, which is characterized by the absence of signs of the breast glands being filled with breast milk and the absence of milk production within a few hours or days after the baby is born, a greater risk of failure in exclusive breastfeeding (Ernawati et al., 2019; Ritonga et al., 2019). Previous research stated that one of the causes of prelacteal nutrition in the first week of a baby’s birth is because breast milk

History:
Received : May 10, 2022
Revised  : May 12, 2022
Accepted : July 12, 2022
Published : July 25, 2022

Publisher: Undiksha Press
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production has not been smooth (Mertasari et al., 2021). Early initiation of breastfeeding is introducing newborns to breast milk as the main food by placing the baby flat immediately after birth between the mother's breasts, at least within the first hour after birth (Fahriani et al., 2016; Heryanto, 2016). Implementation of Early Breastfeeding Initiation is the first step toward success in lactation and breastfeeding. Early Initiation of Breastfeeding and Onset of lactation are interrelated conditions in the process of Early Initiation of Breastfeeding with skin-to-skin contact and active movement of the baby to find the mother's nipples will help to stimulate the production of the hormones prolactin and oxytocin to increase milk production and expenditure (Adam et al., 2016; Sirajuddin et al., 2013). Implementing Early Breastfeeding Initiation has a very important role for mothers and babies to adapt to each other, especially for the continuation of subsequent breastfeeding. Early Breastfeeding Initiation is hoped to help accelerate the onset of lactation, especially in the second lactogenesis phase. There is a significant relationship between the early initiation of breastfeeding and the second onset of lactogenesis (Gustirini, 2018).

Management of Early Initiation of Breastfeeding and getting exclusive breastfeeding is the right of every child. The Indonesian government supports the WHO and UNICEF policies that recommend Early Initiation of Breastfeeding as a “lifesaving” measure because Early Initiation of Breastfeeding can save 22% of infants from death before one month. Based on the results of Riskesdas, the number of Early Initiation of Breastfeeding in Indonesia has increased from 29.3% in 2009 to 34.5% in Riskesdas in 2013 and increased to 58.2% in 2018, where the government's target in 2019 coverage of Early Initiation of Breastfeeding is more than 50%. Based on data from the health profile of the province of Bali, the rate of Early Breastfeeding Initiation in newborns has reached 53.2%, and Buleleng ranks third highest (60.6%) after Badung and Klungkung districts. Even one health center working area in Buleleng with Initiation Coverage Early Breastfeeding 100%. Despite increasing, the target is still far from the perfect target. Based on data from the health profile of the Buleleng district in 2020, the coverage of Early Initiation of Breastfeeding in newborns in Buleleng Regency was 59%, of which 11,431 newborns, only 6,747 of them received Early Initiation of Breastfeeding. From these data, the highest coverage of Early Breastfeeding Initiation of 100% is in the working area of the Sukasada I Public Health Center, and the lowest coverage of Early Breastfeeding Initiation is in the Buleleng I Health Center area of 0.7%. Although the coverage of Early Breastfeeding Initiation has reached 100%, the coverage of exclusive breastfeeding in the working area of the Sukasada I Health Center has only reached 85.3%, which should have been the success of Early Initiation of Breastfeeding should be maintained for up to six months so that babies receive exclusive breastfeeding. Based on data from a preliminary study conducted for Independent Practice Assistance in the Sukasada I working area from several breastfeeding mothers who have successfully carried out Early Breastfeeding Initiation but do not provide exclusive breastfeeding, one of which is because breast milk production is not smooth after Early Breastfeeding Initiation is carried out so that babies are finally given formula milk while breastfeeding. Mothers are still trying to accelerate the production of breast milk. Breastfeeding is a natural process, but many mothers and babies do not succeed because the process cannot be done by the mother but involves a facilitator, in this case, a birth attendant.

Early Initiation of Breastfeeding can train babies instinctively to find their mother's nipples. The first hour after the baby is born is a golden opportunity that will determine the success of the mother to breastfeed her baby optimally from the age of 0-6 months and after that, until the baby is two years old or older (Mawarti & Mayasari, 2014; Setyowati, 2018). When the baby first makes contact and manages to find the breast, the baby will be greeted by colostrum which has been there since pregnancy. The baby's sucking will stimulate the breast to produce milk and expedite the release of breast milk (Anwar & Munira, 2017;
Hanum & Tindaon, 2019). In the first days after giving birth, breast milk usually does not come out much, but breastfeeding the baby early stimulates the breast glands to produce milk and facilitates the early release of breast milk (Mawaddah, 2018; Raharjo, 2014). In addition, early breastfeeding initiation causes vagal stimulation through touch and smell stimulation and induces the release of the hormone oxytocin in the mother, which can accelerate milk production. The skin-to-skin contact can cause the mother's breast temperature, preventing hypothermia and hypoglycemia and helping prevent infant death within hours of first life (Assriyah et al., 2020; Murti, 2017).

Given the enormous benefits of Early Initiation of Breastfeeding for both babies, the government strongly supports the process of Early Initiation of Breastfeeding and exclusive breastfeeding by providing training to birth attendants on how to facilitate the implementation of IMD and how to provide support to breastfeeding mothers and their families to be willing to initiate Early Breastfeeding. This study aims to analyze the contribution of Early Breastfeeding Initiation to the onset of lactation (Kaban, 2017; Noer et al., 2011). Midwives, as health workers with the most opportunities to facilitate this process, should continue to train their skills on how to facilitate Early Initiation of Breastfeeding and increase motivation for the success of Early Initiation of Breastfeeding—preparing pregnant women and their families since the third trimester of pregnancy about the importance of Early Initiation of Breastfeeding and the process of Early Initiation of Breastfeeding so that mothers are more prepared and stable in the face of doing Early Initiation of Breastfeeding (Hutagaol et al., 2014; Indramukti, 2013). Birth attendants remain highly committed to the success of the Early Breastfeeding Initiation process. They are facilitating and accompanying mothers during the process of Early Breastfeeding Initiation so that they can raise the mother's confidence to carry out Early Breastfeeding Initiation and increase the mother's confidence that Early Breastfeeding Initiation will be able to provide the best for her baby (Fahriani et al., 2016; Gustirini, 2018). The earlier it is stimulated to release breast milk through baby sucking, the more milk is produced so that later it can ensure the continuity of exclusive breastfeeding. The solution that is no less important is to make clear rules if the provider intentionally does not facilitate the process of Early Initiation of Breastfeeding.

2. METHODS

This research is pre-experimental quantitative research with a one-shot case study design. This design gives treatment to a group so that there is no control group compared to the experimental group. The treatment was given and then observed by carrying out the post-test. The population in the implementation of this study were all couples of post-partum and breastfeeding mothers and their babies who gave birth at the Independent Midwife Practices in the Sukasada I Public Health Center and met the inclusion criteria. The number of samples in this study was 36 respondents. Respondents were determined by making all mothers who gave birth during the research period respondents. The inclusion criteria for the inclusion criteria in determining the sample were single pregnancy, term, the mother, had no history of the disease, which is a contraindication for Early Initiation of Breastfeeding and breastfeeding, normal type of delivery, delivery at Independent Practice Center Midwife at the research location, healthy baby (vigerous baby). In this study, respondents were given treatment as Early Initiation of Breastfeeding. The researcher observed the duration of the implementation of Early Initiation of Breastfeeding, then made observations regarding the onset of lactation after Early Initiation of Breastfeeding.

The independent variable in this study is the duration of the implementation of Early Breastfeeding Initiation, which is said to be of short duration. If the implementation of Early Breastfeeding Initiation is 1-30 minutes, the duration is sufficient for the implementation of
Early Breastfeeding Initiation of 31-60 minutes. The long duration of the implementation of Early Breastfeeding Initiation is 61-90 minutes, affecting the dependent variable. The dependent variable was that the onset of lactation was categorized as fast if the onset of lactation occurred within 1-48 hours, moderate if the onset of lactation occurred within 49-72 hours, and categorized as slow if the onset of lactation occurred >72 hours. They collected data by observing the duration of Early Initiation of Breastfeeding. After the Observation of Early Initiation of Breastfeeding, observations were made on the onset of lactation for 1-72 hours using the observation sheet for Early Initiation of Breastfeeding and Onset of lactation. Univariate analysis for data on respondent characteristics and the average results of observations of Early Breastfeeding Initiation and the average results of observations of lactation onset. Meanwhile, to analyze the contribution of Early Initiation of Breastfeeding to the onset of lactation, a bivariate analysis with Spearman rank correlation was carried out with the help of SPSS 20.

3. RESULTS AND DISCUSSION

Result

This research was carried out by observing respondents from May 16, 2022, to July 31, 2022. Of the 45 maternity mothers in the Midwife Independent Practice Center working area of the Sukasada I Health Center, 36 respondents met the research criteria. The acquisition of research data on the implementation of Early Initiation of Breastfeeding and the onset of lactation is presented in Table 1.

Table 1. Data on the Implementation of Early Breastfeeding Initiation and Onset of Lactation

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>16-20</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>21-25</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>26-30</td>
<td>15</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>31-35</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>36-40</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>parity</td>
<td>1</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>12</td>
<td>33</td>
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<tr>
<td></td>
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<td>11</td>
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<tr>
<td></td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>36</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implementation of Early Initiation of Breastfeeding</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short duration of Early Initiation of Breastfeeding (1-30 minutes)</td>
<td>5</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Duration of Early Initiation of Breastfeeding is Enough (30-60 minutes)</td>
<td>19</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Duration of Early Initiation of Breastfeeding is long (61-90 minutes)</td>
<td>12</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Onset of Lactation</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>36</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Quick onset of lactation</td>
<td>17</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Dimension</td>
<td>Category</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>After Early Initiation of Breastfeeding</td>
<td>(1-48 hours) Adequate onset of lactation (49-72 hours) Late onset of lactation (&gt;72 hours) Total</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36</td>
<td>36</td>
</tr>
</tbody>
</table>

Based on the results of the Spearman rank test with SPSS on the Contribution of Early Initiation of Breastfeeding to the onset of lactation, the results obtained a p-value of 0.000 and a correlation coefficient of 0.601, with a positive relationship, which means that Early Initiation of Breastfeeding has a strong contribution to the acceleration of lactation onset.

**Discussion**

Based on the results of the analysis of research data, it shows that of 36 breastfeeding mothers who perform Early Initiation of Breastfeeding, they are in the age range of 20-35 years, where at this age, a woman is in the healthy reproductive age range and is the best time to give birth and breastfeed. The implementation of Early Initiation of Breastfeeding is also supported by maternal parity, where in this study, some mothers were parity 2 and 3. Previous parenting experience will affect the readiness of mothers in subsequent breastfeeding, including in the implementation of Early Initiation of Breastfeeding. There is a relationship between early breastfeeding initiation and delayed onset of lactation. A mother who does not initiate early breastfeeding will experience a rapid onset of lactation (<72 hours) 14.3%. The factor associated with delayed onset of lactation is early initiation of breastfeeding. From the study results, some respondents carried out Early Initiation of Breastfeeding, and the duration of time for Early Breastfeeding Initiation was moderate (30-60 minutes). Regular Early Initiation of Breastfeeding can make the second lactogenesis process occur within three days after delivery. It is a very useful action to prevent the failure of early breastfeeding.

Based on the data analysis, the results showed that most respondents experienced a rapid onset of lactation. The onset of lactation is the initial period for increasing milk output for the first time or when the milk comes out, which is characterized by breasts feeling hard, and swollen until the first milk or colostrum comes out. According to Sembiring et al. (2020), there is no relationship between age, parity, body mass index, birth weight, and breast enlargement during pregnancy with delayed onset of lactation.

The bivariate analysis showed that the Spearman rank correlation coefficient for early initiation of breastfeeding with the onset of lactation was 0.601 with (p-0.000) a strong and unidirectional relationship. It means that the duration of the early initiation of breastfeeding has a strong contribution in accelerating the onset of lactation with a p-value <0.05. The results of this study support research which states that sooner or later, the onset of lactation can be influenced by several factors, namely age, parity, anxiety, early initiation of breastfeeding, birth weight, delivery method, nutritional status, and oxytocin massage (Anwar & Munira, 2017; Fok et al., 2019). According to the results of previous studies, there is a significant relationship between the Early Initiation of Breastfeeding and the onset of second lactogenesis (Gustirini, 2018; Murti, 2017). The onset of lactation in most mothers who had Early Initiation of Breastfeeding was faster than that of mothers who did not initiate Early Initiation of Breastfeeding (Mawarti & Mayasari, 2014; Sembiring, 2020).

Early Initiation of Breastfeeding can train babies instinctively to find their mother’s nipples. The first hour after the baby is born is a golden opportunity that will determine the success of the mother to breastfeed her baby optimally from the age of 0-6 months and after that, until the baby is two years old or older (Mawarti & Mayasari, 2014; Setyowati, 2018).
When the baby first makes contact and manages to find the breast, the baby will be greeted by colostrum, which has been there since pregnancy. The baby's sucking will stimulate the breast to produce milk and expedite the release of breast milk (Anwar & Munira, 2017; Hanum & Tindaon, 2019). In the first days after giving birth, breast milk usually does not come out much, but breastfeeding the baby early stimulates the breast glands to produce milk and facilitates the early release of breast milk (Mawaddah, 2018; Raharjo, 2014). In addition, Early Initiation of Breastfeeding causes vagal stimulation through touch and smell stimulation and induces the release of the hormone oxytocin in the mother, which can accelerate milk production. The skin-to-skin contact can cause the temperature of the mother's breast, which can prevent hypothermia and hypoglycemia and help prevent infant death within the first hours of life (Assriyah et al., 2020; Murti, 2017).

The results of this study are expected to be used as an additional reference for further research related to the role of midwives in providing breastfeeding guidance management and increasing the scope of Early Breastfeeding Initiation and the onset of lactation and exclusive breastfeeding. Subsequent research is more focused on the preparation of Early Breastfeeding Initiation from the third trimester of pregnancy and more intensively on observing patients both in the Early Breastfeeding Initiation stage and before the onset of lactation and preparing more surveyors to observe the process.

4. CONCLUSION

There is a strong, significant, and unidirectional contribution between the implementation of early initiation of breastfeeding and the onset of lactation in postpartum and breastfeeding mothers at the Midwife Independent Practice Center in the Sukasada I Public Health Center in 2022 with a p-value of 0.000, 0.05 with a close relationship level of 0.601. The results of this study are expected to be used as an additional reference for further research related to the role of midwives in providing breastfeeding guidance management and increasing the scope of Early Breastfeeding Initiation and the onset of lactation and exclusive breastfeeding. Subsequent research will emphasize the preparation of Early Breastfeeding Initiation from the 3rd trimester of pregnancy. It will be more intensive to observe patients both in the Early Breastfeeding Initiation stage and before the onset of lactation and prepare more surveyors to observe the process.

5. REFERENCES


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