The Relationship between Maternal Knowledge and Family Support with Exclusive Breastfeeding

Hubungan Pengetahuan Ibu dan Dukungan Keluarga dengan Pemberian ASI Eksklusif

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ABSTRACT

Background: Various factors have influenced exclusive breastfeeding, but the practice remains low globally. In the Tengger community, several studies have shown that 79% of mothers provide colostrum, but only 60% succeed in practicing exclusive breastfeeding. Another study also showed that the prevalence of exclusive breastfeeding in toddlers was 38%.

Objectives: Analyzed the relationship between mothers' knowledge and family support with exclusive breastfeeding for children under two years in Tengger Community.

Methods: The study was analytical observational with case-control design. The proposal was outlined in February, and the research was carried out until July 2022. Used the total sampling technique and the sample consisted of 57 infant mothers, 28 mothers in the control group, and 29 mothers in the case group. Conducted in the Tengger community, Pasuruan Regency, East Java. Interview and questionnaire as data collection.

Results: Mothers were between 20–34 years old, having good knowledge (67.9%) and good family support (75%). A weak negative correlation existed between maternal knowledge and exclusive breastfeeding ($r = -0.05$). Very weak positive correlation between family support and exclusive breastfeeding ($r = 0.139$). Among the components of family support, emotional support had a moderately strong positive correlation ($r = 0.41$), the information had a very weak positive correlation ($r = 0.228$), the assessment had a very weak positive correlation ($r = 0.208$), and instrumental had a very weak negative correlation ($r = -0.15$). These results are from Spearman correlation tests.

Conclusions: Higher maternal knowledge has a feeble influence on exclusive breastfeeding, but more excellent family support has a more substantial influence. Maternal knowledge and family support play vital roles in promoting exclusive breastfeeding.

INTRODUCTION

Providing only breast milk to infants without any other foods or liquids since birth is the definition of exclusive breastfeeding¹. The Government Regulation of the Republic of Indonesia Article 6 Number 33 of 2012 states that mothers should provide exclusive breastfeeding to their babies after giving birth. Breast milk contains protective factors and appropriate nutrients for infants, ensuring their nutritional status and reducing childhood morbidity and mortality rates. The global low rate of exclusive breastfeeding at six months is still evident, with approximately only 40% of infants worldwide being exclusively breastfed for the first six months, according to World Health Organization (WHO) data. Based on the recent estimates of the Indonesian Nutritional Status Study (SSGI) 2021 survey, the coverage of exclusive breastfeeding for 24 hours in Indonesia is 52.5%². Only one out of two infants under six months is exclusively breastfed, and more than 40% of infants are introduced to nutritionally inadequate complementary foods too early³. The reported rate of exclusive breastfeeding in East Java Province in 2020 shows a dramatic decline from 68.2% in 2019 to 61%⁴.

Breastfeeding is a complex health behavior. Its success depends on mother and baby characteristics, health system, family, community, and professional support⁵. Maternal knowledge is one of many factors influencing exclusive breastfeeding. A study in Klaten shows that working mothers who persistently breastfeed are encouraged by influential factors of knowledge and motivation in providing exclusive breastfeeding⁶. Knowledge is crucial in shaping a person's behavior, including exclusive breastfeeding. Well-informed mothers with better knowledge of exclusive breastfeeding will be more consistent in practicing it than their counterparts. Besides, family is also vital to the success of exclusive breastfeeding. A supportive family can positively impact the conditions of its members as
they feel loved, cared for, and valued by their family. Some factors hugely influence the success of exclusive breastfeeding; support from a husband or family for six months is one of the instances. Support that the family can offer includes giving advice, providing information, or making food for the mother. Active involvement of the family during breastfeeding will contribute to the success of exclusive breastfeeding.

Wonokitri Village in Tosari District, Pasuruan Regency, is one of the villages in the Tengger Tribe area located in the highland of the Bromo Tengger Semeru mountain range, East Java. Wonokitri Village is part of the supporting tourist villages of the Bromo Tengger Semeru National Park (TNBTS). The economy and welfare of the surrounding community have increased due to the development of the tourism sector. The main occupation of the Wonokitri Villagers is farming, but they also have side jobs as traders and vehicle drivers in the Bromo Tengger tourist area. A study conducted in the Tengger community shows that 79% of mothers provide colostrum to their babies, but 60% fail to breastfeed exclusively because they have introduced foods other than breast milk to babies under six months. In addition, Muniroh et al. in their research, report a very low prevalence of exclusive breastfeeding (38%). The low rate of exclusive breastfeeding is conceivably influenced by the beliefs firmly held by the Tenggerese people. In the beliefs of the people of the Tengger tribe, giving sugar water and mashed bananas by a traditional birth attendant to the mouths of newborns is hoped to make the babies kind-hearted and polite. Other than that, they give honey and young coconut. During breastfeeding, they also do several practices that can cause health problems, such as discarding colostrum because it is considered dirty, not consuming fish to prevent fishy breast milk, not eating chili because it can cause spiciness, and not taking green vegetables because it can cause the milk to be bitter.

The understanding and concerns about inadequate breast milk and early introduction to complementary foods indicate a lack of confidence and knowledge about the benefits of exclusive breastfeeding. A study by Mawaddah et al. finds several factors that support mothers in providing exclusive breastfeeding, such as environmental factors (husbands, family, and healthcare workers). The current study aims to analyze the relationship between maternal knowledge and family support with exclusive breastfeeding performed by mothers of infants under two years of age in the Tengger Tribe.

METHODS

The quantitative observational analytical approach was the method used in this study. A case-control study design was chosen to assess the magnitude of risk factors in exclusive breastfeeding. The research examined two groups: the case group of 29 mothers with non-exclusively breastfed infants and the control group of 28 mothers with exclusively breastfed infants. The research population comprised 57 infant mothers residing in Wonokitri Village, Tosari District, Pasuruan Regency, East Java. Then, to collect the data, this study utilized an interview technique with a questionnaire. The respondents were mothers who had infants aged 6–24 months old. Maternal knowledge and family support were the independent variables, while exclusive breastfeeding was the dependent variable. An ethical clearance certificate was obtained from the Faculty of Public Health Universitas Airlangga research ethics committee, with certificate number 93/EA/KEPK/2022. Descriptive analysis was the data analysis technique employed to provide an overview of respondents’ distribution. Furthermore, bivariate analysis using correlation tests was made to determine the relationships between the variables. Possible values of the correlation coefficient range from -1 to +1, where values closer to 1 or -1 indicate a strong relationship, while values closer to 0 indicate a weak relationship.

RESULTS AND DISCUSSION

Mother’s Characteristics

The characteristics of the mother’s age, father’s and mother’s education level, father’s and mother’s occupation, and family income level were obtained from the interview results using a questionnaire. The following results demonstrate the distribution of the mother’s characteristics in exclusive and non-exclusive breastfeeding groups.

In Table 1, the most significant proportion of mothers in the exclusive and non-exclusive breastfeeding groups belonged to the 20–34 years age group. However, the non-exclusive breastfeeding group had a higher percentage of mothers under 20 (24.1%). Maternal age could determine the level of maternal health related to pregnancy conditions, delivery conditions, breastfeeding, and infant feeding patterns. Young mothers under 20 may not possess the physical and social maturity to cope with pregnancy, childbirth, breastfeeding, and child raising. According to Hurlock, mothers aged 20–35 years are in the "adult phase" or "reproductive phase" and are better equipped to handle the challenges of pregnancy, childbirth, breastfeeding, and providing emotional care for their babies. Mothers over 35 may experience a decline in hormone production, which can reduce milk secretion. On the other hand, teenagers aged 12–19 may not have good physical, psychological, and social development, which can affect breast milk production.

The education level section showed that most fathers and mothers in the exclusive breastfeeding group have a low level of education (78.6% and 75%), ranging from taking non-formal education to completing junior high school. The same pattern was found in the non-exclusive breastfeeding group (65.4% and 69%). Therefore, both the case and control groups had similar parental education conditions. Adding more information to these findings, a previous study conducted by Pitaloka et al. suggests that the education level of the mothers does not show any significant result or correlation with exclusive breastfeeding.

In the exclusive breastfeeding group, the fathers predominantly worked as farmers (96.4%), while the mothers primarily worked as farmers (71.4%), followed by traders (3.6%) and others (3.6%). The mothers in the non-exclusive breastfeeding group were primarily unemployed (31%). Working mothers often find difficulties in directly breastfeeding their babies. Working moms’ limitations included time and location, primarily when their workplaces did not provide breastfeeding facilities. In addition to time and location limitations, physical and mental exhaustion after work could affect the smooth production of breast milk. On the other hand, mothers who were not bound by outside work had more time and opportunity to breastfeed their babies. To successfully practice exclusive breastfeeding, working mothers are suggested to seek information on managing breastfeeding and be supported by adequate workplace facilities.

The family income levels of the case and control groups were mainly below the regional minimum wage of the Pasuruan Regency (85.7% and 72.4%). The results revealed a higher percentage of exclusive breastfeeding practice in families with incomes below the regional minimum wage (85.7%). The provision of exclusive breastfeeding could be influenced by economic status. Mothers in families with higher economic status tended not to provide exclusive breastfeeding to their children. Various factors may contribute to this trend, including that mothers with higher incomes can afford the relatively expensive formula milk, perceive it as superior to breast milk, and find it more convenient to feed their babies.

The Relationship Between Maternal Knowledge and Exclusive Breastfeeding

The relationship between the maternal knowledge variable and exclusive breastfeeding was analyzed using SPSS software. The table below shows the relationship between maternal knowledge level and exclusive breastfeeding.
Based on the research findings, most breastfeeding mothers in exclusive and non-exclusive breastfeeding groups had good knowledge about exclusive breastfeeding. Table 2 explained that a significant portion of mothers in the exclusive breastfeeding group had good knowledge (67.9%). The same trend occurred in the non-exclusive breastfeeding group, with 72.4% of mothers having good knowledge. The maternal knowledge variable had a very weak negative correlation with the breastfeeding variable (correlation coefficient=-0.05). A negative correlation indicated an inverse relationship, suggesting that the level of maternal knowledge had a relatively weak influence on exclusive breastfeeding. Mothers in Wonokitri village tended to follow the advice of healthcare providers. Based on interviews with the respondents, the most common reason for mothers to provide exclusive breastfeeding was the recommendation from healthcare providers such as midwives or doctors (57.1%). Consistent with previous research findings, recommendations from healthcare providers tend to foster a greater desire for breastfeeding than formula feeding. The role of healthcare workers is crucial in promoting exclusive breastfeeding practice, even more so than maternal knowledge.

According to Lawrence Green’s theory, knowledge is a predisposing factor in behavior formation. Good knowledge is a foundation for consistent and informed behavior compared to behavior without a knowledge base. Healthcare providers play a reinforcing role in shaping health behaviors. In addition to the information provided by healthcare professionals, the use of technology and internet networks through mobile devices can serve as a source of information for mothers. Breastfeeding mothers in Wonokitri village could utilize the internet to enhance their knowledge about exclusive breastfeeding, resulting in high maternal knowledge.

The Relationship Between Family Support and Exclusive Breastfeeding

The relationship between the family support variable and exclusive breastfeeding was analyzed using SPSS software. The following table illustrates the relationship between family support and exclusive breastfeeding.

Based on the research findings, most mothers in the control group received good family support (75%). The same trend was observed in the non-exclusive breastfeeding group, although with a lower percentage (62.1%). Based on the data distribution in Table 3, the family support variable had a very weak positive correlation with the exclusive breastfeeding variable (correlation coefficient=0.139). A positive correlation indicated a positive relationship, meaning that better family support significantly influenced exclusive breastfeeding practice. The practice of exclusive breastfeeding was 3.5 times more likely to be successful when supported by the family. The family plays a significant role in a mother’s intention to breastfeed her baby and continue breastfeeding.

Table 2. The relationship between maternal knowledge level and exclusive breastfeeding in Wonokitri Village in 2022

<table>
<thead>
<tr>
<th>Maternal Knowledge Level</th>
<th>Exclusive Breastfeeding Groups</th>
<th>Non-Exclusive Breastfeeding Group</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>19</td>
<td>21</td>
<td>67.9</td>
</tr>
<tr>
<td>Sufficient</td>
<td>9</td>
<td>8</td>
<td>32.1</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

Correlation test; *) Correlation is significant if -1 ≤ r ≤ 1; r (correlation coefficient)

Table 3. The relationship between family support and exclusive breastfeeding in Wonokitri Village in 2022

<table>
<thead>
<tr>
<th>Family Support</th>
<th>Exclusive Breastfeeding Group</th>
<th>Non-Exclusive Breastfeeding Group</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>21</td>
<td>18</td>
<td>75</td>
</tr>
<tr>
<td>Sufficient</td>
<td>7</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

Correlation test; *) Correlation is significant if -1 ≤ r ≤ 1; r (correlation coefficient)

Table 4. The relationship between support variables and exclusive breastfeeding in Wonokitri Village in 2022.

<table>
<thead>
<tr>
<th>Support Variables</th>
<th>Exclusive Breastfeeding Group</th>
<th>Non-Exclusive Breastfeeding Group</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>24</td>
<td>15</td>
<td>88.9</td>
</tr>
<tr>
<td>Sufficient</td>
<td>3</td>
<td>14</td>
<td>11.1</td>
</tr>
<tr>
<td>Insufficient</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Informational Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>15</td>
<td>9</td>
<td>53.6</td>
</tr>
<tr>
<td>Sufficient</td>
<td>13</td>
<td>18</td>
<td>46.4</td>
</tr>
<tr>
<td>Insufficient</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Instrumental Support</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
According to Table 4, mothers in the exclusive breastfeeding group mostly got good emotional support from their families (88.9%). The non-exclusive breastfeeding group had a nearly equal distribution between suitable and sufficient emotional support (51.7% and 48.3%). The family emotional support variable had a moderately strong positive correlation with the breastfeeding variable (correlation coefficient=0.41). A positive correlation indicated a direct relationship, meaning that better emotional support from the family was associated with a higher likelihood of exclusive breastfeeding. Family emotional support includes providing motivation, encouragement, and patience in dealing with the behavior of pregnant mothers and creating a sense of comfort and feeling loved.

Good informational support from the family was received by more than half of the mothers in the exclusive breastfeeding group (53.6%). Conversely, in the non-exclusive breastfeeding group, most mothers have sufficient informational support from their families (62.1%). The findings suggested a very weak positive correlation between the informational support variable with the breastfeeding variable, with a correlation coefficient of 0.228. A positive correlation indicated a direct relationship, meaning that better informational support from the family was associated with a higher likelihood of exclusive breastfeeding. The informational support included essential information on postpartum care, breastfeeding phases, and other crucial information that can encourage mothers to breastfeed correctly and effectively. Families could obtain this information from health centers, the internet, and medical professionals who can provide guidance and assist mothers in making informed decisions. Information provided by the family, such as guidance, advice, and suggestions for breastfeeding, can serve as solutions to the difficulties faced by the mothers during the breastfeeding process.

Postpartum breastfeeding can be challenging for a mother, who may experience anxiety, discomfort, and psychological distress. Half of the mothers in the exclusive breastfeeding group (57.1%) received good instrumental support. Similarly, 58.6% of mothers in the non-exclusive breastfeeding group received instrumental family support. These findings showed a very weak negative correlation between the instrumental support and breastfeeding variables, with a correlation coefficient of -0.15, close to -1. A negative correlation indicated an inverse relationship, meaning that better instrumental support from the family was not strong enough to influence exclusive breastfeeding significantly. The instrumental support can be financial assistance, food, drinks, and rest.

Most mothers in the control group had good family assessment support (75%). In the case group, more than half of the mothers also received good assessment support from the family (55.2%). Assessment support means that the family solves a problem by acting as a validator of family members' identities, and this support can be given through appreciation, attention, and support. The assessment support variable had a very weak positive correlation with the breastfeeding variable, with a correlation coefficient of 0.208. A positive correlation denoted a positive relationship, indicating that the better the assessment support from the family, the greater the influence on exclusive breastfeeding.

Ultimately, no significant relationship was found between family support and exclusive breastfeeding. The role of healthcare providers (midwives or doctors) is more significant in determining mothers' decision to provide exclusive breastfeeding.

Previous research done in Kemiri Muka Public Health Center in Depok City discovers that mothers who receive support from healthcare providers have a 3.97 times higher chance of providing exclusive breastfeeding than those who receive less support from healthcare providers.

CONCLUSIONS

As addressed in the present research analysis, it can be summarized that most mothers in both case and control groups are between 20-34 years old. However, the case group had a higher percentage of mothers under 20. The parents in both groups generally have a low educational level, ranging from taking no education to completing junior high school. Some families earn less than the minimum wage and are more likely to provide exclusive breastfeeding. Most mothers have good knowledge of the exclusive and non-exclusive breastfeeding groups.

ACKNOWLEDGEMENT

The researchers would like to express their deepest gratitude to the Faculty of Public Health, Universitas Airlangga, as well as to the Tengger community, particularly in Wonokrise Village, Tosari District, Pasuruan Regency, East Java Province, for their support and assistance in providing the venue, data, and information necessary to fulfill the objectives of this research.
Conflict of Interest and Funding Disclosure
The authors declare no conflicts of interest in the preparation of this article. The implementation of this research was funded by the Research and Innovation Institute (Lembaga Penelitian dan Inovasi) of Universitas Airlangga.

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