The Relationship between Exclusive Breastfeeding and Stunting Incidents in Candipuro Village

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Abstract:
Stunting is a problem of chronic malnutrition caused by a lack of nutrition for a long time, resulting in growth disorders. The condition of inadequate nutritional intake in children is important for stunting. The best nutritional intake for babies is breast milk. Breastfeeding is thought to affect the incidence of stunting. This study aimed to determine the relationship between exclusive breastfeeding and the incidence of stunting in Candipuro Village. The research design uses qualitative research, namely retrospective or case-control. The sampling technique used in this study is purposive sampling. Analysis of the data used in this study is to use descriptive and bivariate data analysis. The Chi-square data analysis results show a relationship between exclusive breastfeeding and the incidence of stunting in Candipuro Village (p=0.00). Thus, it can be concluded that there is a relationship between exclusive breastfeeding and the incidence of stunting in Candipuro Village. The results of this study provide input for mothers to provide exclusive breastfeeding to infants to avoid stunting.

Keywords: exclusive breastfeeding; stunting; nutrition

INTRODUCTION

Breast milk is the best food for babies. That contains the nutrients most suitable for the baby's needs and a set of protective substances to fight disease. Exclusive breastfeeding is breastfeeding without other additional food and drinks for infants aged 0-6 months (Helmyati, 2019). This is supported by the statement of the world health organization (WHO, 2001), which states that exclusive breastfeeding for the first six months of a baby's life is best. The first two years of a child's life are critical because optimal nutrition during this period reduces morbidity and mortality. In addition, exclusive breastfeeding also reduces the risk of chronic disease and promotes better growth and development (Handayani et al., 2019). Exclusive breastfeeding is associated with a reduced risk of death from respiratory infections and diarrhea, as breast milk has been shown to contain beneficial bacteria and substances necessary for forming the intestinal flora that is important for the baby's immune system (Yusibbrahka et al., 2023). The following problems are common during breastfeeding: mastitis, swollen breasts, flat nipples, inability to breastfeed, and poor feeding practices that affect breastfeeding success (Wahyuningsih et al., 2023).

Stunting is a chronic malnutrition problem caused by a lack of nutrition for a long time, resulting in growth disorders. The condition of inadequate nutritional intake in children is important for stunting. This occurs due to insufficient food for toddlers under two years old, such as inappropriate breastfeeding positions, not being given exclusive breastfeeding and poor-quality...
complementary foods (Helmyati, 2019). A value Z-Score Height for Age indicates stunting (TB/U) or Body Length for Age (PB/U) less than -2 standard deviations (SD) based on WHO (World Health Organization) Child Growth Standard (Chyntaka & Putri, 2020). Stunting can slow the growth of children, so more specific treatment is needed for this incident, such as involving community health cadres to optimize health programs further (Ardiana et al., 2019). Children with stunting can experience physical, cognitive, mental, and intellectual impairments that prevent them from learning at their best (Novelia et al., 2021).

Based on the 2020 SSGI results, the stunting rate in Indonesia is 26.92%, East Java is 25.64%, Lumajang is 30.1%, Candipuro Health Center is 210 toddlers, and Candipuro village has 53 toddlers (Data for August 2020). Candipuro Village is one of the villages that has the second highest prevalence in the Candipuro Health Center. The low coverage of exclusive breastfeeding in the village of Candipuro influences this. Six of 10 toddlers suffering from stunting do not get exclusive breastfeeding. As evidenced by the nutrition report data, the achievement of exclusive breastfeeding in 2019 was 61.5% and decreased in 2020 by 1.5% to 60% (East Java Provincial Health Office, 2020). The incidence of stunting in several places has also increased, including in the Jember Regency area, which has had an impact on decreasing the nutritional status of toddlers (Ardiana et al., 2021a). The high incidence of stunting is closely related to the amount of nutrients a child receives, especially in the first 1,000 days of life (Rudolfo et al., 2022).

According to research conducted by Nurfadilah in 2018 in the working area of the Barombong Health Center, Makassar, South Sulawesi. Information is needed in the form of health education about exclusive breastfeeding to parents through various parties and the media so parents can know the importance of exclusive breastfeeding. And provide an understanding that if exclusive breastfeeding is not given, it can result in stunting (Angriani et al., 2019). Providing additional nutrition from various organic ingredients can also improve nutrition and reduce the incidence of stunting in children (Ardiana et al., 2021b).

With low exclusive breastfeeding and high rates of stunting, counseling about exclusive breastfeeding by health workers for pregnant women, breastfeeding mothers, mothers of toddlers at posyandu, home visits, and postpartum visits are needed to reduce stunting rates (Hikmahrazhich et al., 2020). This can also affect vital signs if nutrition is not optimally met (Fauzi et al., 2022). If this happens, it can cause anxiety affecting the client's quality of life (Putri et al., 2021).

Based on the description above, it shows that one of the factors in the incidence of stunting is not giving exclusive breastfeeding. Therefore, as an effort to find out and understand the relationship between exclusive breastfeeding given by mothers to toddlers who suffer from stunting, researchers are interested in researching the relationship between exclusive breastfeeding and the incidence of stunting in toddlers in Candipuro Village, Candipuro District, Lumajang Regency.

**METHOD**

This study uses quantitative research, namely by retrospective or case control. Retrospective is research where data collection for the dependent variable is carried out first. Only the causal variables that have occurred in the past, for example, a year ago, are measured by asking the respondent. The population in this study was stunting toddlers in Candipuro Village, with a total population of 58 people. The sample taken in this study was exclusive breastfeeding with the incidence of stunting in Candipuro Village. The inclusion criteria in this study were toddlers in the Candipuro Village area aged 12-60 months, stunted toddlers, and parents willing to be
respondents. Exclusion criteria include toddlers who experience developmental problems since intrauterine and toddlers who are sick.

The independent variable used is exclusive breastfeeding as the dependent variable, namely the incidence of stunting. This research was conducted in May-July 2022 in Candipuro Village. The instrument used in this study is a checklist (checklist) with variables, sub-variables, and their indicators. The sampling technique used in this study is purposive sampling (Sujarweni, 2022). Analysis of the data used in this study uses descriptive and bivariate data analysis, namely testing Chi-Square, the results of which are then discussed. Data collection uses primary, secondary, and tertiary data, which is carried out by giving questionnaires to respondents. This research was conducted by the ethical permit for health research with the number: KEPK/107/STIKes-HPZH/VIII/2022.

RESULT

This research was conducted in Candipuro Village on August 20-29, 2022. The number of samples in this study was 58 respondents, namely parents of toddlers who were stunted, by collecting data through a questionnaire. After the data was collected, it was edited, processed, tabulated, and analyzed using SPSS with a significance level of 5% (α: 0.05).

The research results are presented sequentially according to the planned analysis pattern, namely the first with an analysis of variance, which includes the frequency distribution. Then the second is bivariate analysis, namely, the analysis of the relationship between the independent & dependent variables using the chi-square correlation test.

Univariate analysis

Descriptive analysis was carried out to describe a single distribution of general data such as gender, age, and independent & dependent variables. The independent variable is exclusive breastfeeding. The dependent variable is the incidence of stunting. Data were obtained from a sample of 58 stunting toddlers in Candipuro Village in the following table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years old)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2</td>
<td>20</td>
<td>34.48</td>
</tr>
<tr>
<td>&gt;2</td>
<td>38</td>
<td>65.52</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>32</td>
<td>55.17</td>
</tr>
<tr>
<td>Woman</td>
<td>26</td>
<td>44.83</td>
</tr>
<tr>
<td>Exclusive Breastfeeding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given</td>
<td>19</td>
<td>32.76</td>
</tr>
<tr>
<td>Not Given</td>
<td>39</td>
<td>67.24</td>
</tr>
<tr>
<td>Toddler Height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short</td>
<td>48</td>
<td>82.76</td>
</tr>
<tr>
<td>Very short</td>
<td>10</td>
<td>17.24</td>
</tr>
</tbody>
</table>

Table 1 above shows that the frequency of stunting toddlers in Candipuro Village is dominated by toddlers in the age group >2 years. The male sex dominates the toddlers who experience stunting. The distribution related to exclusive breastfeeding is dominated by mothers who do not give exclusive breastfeeding to their toddlers. The distribution of stunting events related to toddler height is dominated by "short" size.
Relationship between Exclusive Breastfeeding and Stunting Incidence/Toddler Height

Table 2. Relationship between Exclusive Breastfeeding and Stunting Incidence/Toddler Height

<table>
<thead>
<tr>
<th>Exclusive Breastfeeding</th>
<th>Toddler Height</th>
<th></th>
<th></th>
<th>Total f</th>
<th>%</th>
<th></th>
<th>%</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Given</strong></td>
<td>Short</td>
<td>15</td>
<td>31.25</td>
<td>4</td>
<td>40</td>
<td>19</td>
<td>32.75</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Very short</td>
<td>4</td>
<td>32.75</td>
<td>6</td>
<td>60</td>
<td>39</td>
<td>67.25</td>
<td></td>
</tr>
<tr>
<td><strong>Not Given</strong></td>
<td>33</td>
<td>68.75</td>
<td>6</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that the relationship between exclusive breastfeeding and the incidence of stunting in Candipuro Village is dominated by toddlers with short height and not given exclusive breastfeeding by the mother. Chi-Square test results were obtained at p=0.000 (p<0.05), showing a relationship between exclusive breastfeeding and toddler stunting.

**DISCUSSION**

**Number of Stunting Events**

Based on the research, it was found that the distribution of stunting events related to toddler height was dominated by "short" height in Candipuro Village. Nutritional status is a manifestation of the state of the body, which reflects the results of each food consumed. Intake of food that only meets adequacy for a short time will result in malnutrition, affecting children's growth. In this study, the nutritional status with the height/age index.

According to Ramayulis (2018), stunting or shortness is a failure to thrive in infants 0-11 months and toddlers 12-59 months due to chronic malnutrition, especially in the first 1000 days of life, so children are too short for their age (Sulistianingsih & Sari, 2018).

Monitoring Nutritional Status in East Java in 2014, the prevalence of stunting was 29%. The initial survey obtained by Mandangin Island in 2018 was 257 children who experienced stunting, which increased in 2019, namely 266 children, with a total number of toddlers in 2019, 594 children. Some factors that become a problem for toddlers who experience stunting on Mandangin Island are that almost 57% do not get exclusive breastfeeding. This is because most mothers of toddlers pay more attention to weight than height, so they are not even two weeks old when their babies are given complementary food. As well as a lack of knowledge level because the average parent's last education is elementary school graduation (Sumarni et al., 2020).

Meanwhile, according to Soetjiningsih (2013), the factor that causes stunting is the mother's nutritional status during pregnancy. The mother's nutritional status during pregnancy shows the nutritional adequacy that the child gets from the womb, which will significantly affect the occurrence of malnutrition when the child is born later. Inadequate maternal nutritional intake before gestational age causes a lack of growth in the fetus it can cause babies to be born with short birth lengths (Adriani & Wirjatmadja, 2012).

Increased stunting in toddlers 1-5 years in Wagir Kidul Village, Pulung, Ponorogo. Based on data from 48 respondents, it can be interpreted that a small proportion (12.5) of six toddlers are stunted. Stunting is a condition in which a person's height is shorter than other people's height in general or their age (Ministry of Village, Republic of Indonesia, 2017). This will decrease the quality of human resources and reduce the nation's productivity and competitiveness (Latifah et al., 2020).

This is supported by Sartono's research (2017) in Yogyakarta, which shows that there is a relationship between Chronic Energy Deficiency (CED) in pregnant women and the incidence of...
stunting aged 6-24 months, with a p-value: 0.042; QR 1.74 (95% CI; 1.01 – 2.977) and shows that Chronic Energy Deficiency increases the risk factor for stunting events (Handayani et al., 2019).

Other factors that affect stunting besides the mother's nutritional status during pregnancy are body weight and length at birth. The theory states that birth weight is closely related to growth and development and the possibility of a decline in intellectual function. Besides, babies are more susceptible to infection and hypothermia (Almatsier, 2009).

**Exclusive Breastfeeding in Toddlers**

Based on the research, it was found that the distribution related to exclusive breastfeeding was dominated by mothers who did not give exclusive breastfeeding to their toddlers. Breast milk contains nutrients for the needs and conditions of the baby to maximize the baby's growth, including height. Based on this, it can be ensured that the baby's needs are met and the baby's nutritional status is normal, both in height and weight, if the baby gets exclusive breastfeeding.

Exclusive breastfeeding, according to Government Regulation of the Republic of Indonesia No. 33 of 2012 concerning Exclusive Breastfeeding is the provision of Mother's Milk (ASI) without adding and or replacing it with other food or drinks given to babies from birth for six months (Adriani & Wirjatmadi, 2012).

Exclusive breastfeeding provides various benefits for mothers and babies. Where breast milk is a natural food that is good for babies, practical, economical, easy to digest, and has an ideal composition of nutrients according to the needs and digestive abilities of babies & breast milk supports baby growth, especially height, because Breast milk calcium is absorbed more efficiently than breast milk substitutes (Dewi, 2015).

The education level of the mothers who were respondents in this study found that mothers with lower secondary education tended not to give exclusive breastfeeding. In mothers with a low level of formal education, it is difficult to refuse pre-lacteal feeding during treatment—limited knowledge of mothers about breast milk and its benefits results in the increased provision of mixed feeding. The parity factor is more related to the mother's experience. Mothers with exclusive breastfeeding experience will tend to give exclusive breastfeeding to their next child. An external factor that cannot be ruled out in a mother's success in giving exclusive breastfeeding is support. Support from the husband, family, and environment also influences the mother's behavior in breastfeeding. Other research in the Tabanan district suggested that parity, IMD, and good family support were significantly associated with exclusive breastfeeding (Novayanti et al., 2021).

The results of this study indicated that 39 respondents (67.24%) were not given exclusive breastfeeding. This could be due to mothers' need for more knowledge about exclusive breastfeeding, which could be due to low maternal education. This is consistent with the results of previous studies that not giving exclusive breastfeeding to infants is influenced by several factors, according to research conducted by Setyawati (2017), which revealed that there was a significant relationship between the level of knowledge of mothers about exclusive breastfeeding and exclusive breastfeeding in Tajuk Village, Getasan District, Semarang Regency (Sulistianingsih & Sari, 2018).

This result was also supported by Arifin's research (2017), which examined the most obvious factor causing the failure of exclusive breastfeeding, namely the knowledge factor; the reason why mothers did not give exclusive breastfeeding to their babies was mostly 51.35% because mothers did not know about exclusive breastfeeding, 18.92% because mothers work, 16.22% because breast milk does not come out, and 13.51% of mothers feel that their babies are not full if they are only given breast milk.
The Relationship between Exclusive Breastfeeding and Stunting Incidents in Candipuro Village

Based on the research, it was found that the relationship between exclusive breastfeeding and the incidence of stunting in Candipuro Village was dominated by toddlers with short height and not given exclusive breastfeeding by the mother. The relationship between exclusive breastfeeding and the incidence of stunting in Candipuro Village, where a p-value of 0.000 is obtained, meaning less than alpha 0.005. So, it was concluded that there was a relationship between exclusive breastfeeding and the incidence of stunting in Candipuro Village. Breast milk is a nutritional intake that is by the needs of child development. Babies who don't get enough breast milk have poor nutritional intake and can cause malnutrition, which can cause stunting (Suryani, 2021).

By what was said by Prasetyo (2014) and Handayani et al. (2019) that one of the benefits of exclusive breastfeeding is to support baby growth, especially height because breast milk calcium is more efficiently absorbed than breast milk substitutes or formula milk. So, babies given exclusive breastfeeding tend to have a higher height and growth curve than babies given formula milk. Breast milk contains more calcium to maximize growth, especially height, and avoid the risk of stunting (Dewi, 2015).

Breast milk contains nutrients for the needs and conditions of the baby to maximize the baby's growth, including height. Based on this, it can be ensured that the baby's needs are met, and the baby's nutritional status is normal, both in height and weight, if the baby gets exclusive breastfeeding (Chyntaka & Putri, 2020). Like any other organ in the body, the brain requires various nutrients to stay healthy and function. Foods that are good for your physical health (nutrition) are also good for your mental health (Kurniyawan et al., 2023).

The results of this study are in line with previous research by Arifin (2017) in (Indrawati, 2016) entitled Analysis of the Distribution and Risk Factors of Stunting in Toddlers in Purwakarta Regency 2017. The results obtained from multivariate analysis of the most dominant factor is breastfeeding which affects stunting 3.1% (OR 3.195% 1.434-6.835) (Putri & Lake, 2020).

The study's results also showed that four respondents were given exclusive breastfeeding which was very short in height. The four respondents were born with LBW, which will affect the child's growth and height. This is to the theory that exclusive breastfeeding is not the only factor influencing stunting incidence. Other factors include nutritional intake, infectious diseases, food availability, nutritional status of pregnant women, birth weight, birth length, and MP ASI (Adriani & Wirjatmadi, 2012).

According to Dewi (2020), who conducted a study entitled stunting status about Exclusive Breastfeeding, the results showed that most normal toddlers received exclusive breastfeeding (61.3%) and most stunted toddlers did not (74.2%) (SJM et al., 2020).

Likewise, the results of research conducted by Wahyuni (2019) with the title Relationship between Exclusive Breastfeeding Status and Stunting Incidents in Toddlers Aged 24-36 Months in Watugajah Village, Gunung Kidul Regency, showing the results of a history of exclusive breastfeeding for 25 children (56.86%) and most children in this study tend not to experience stunting (Dewi, 2015).

So, it can be concluded that if given exclusive breastfeeding, the incidence of stunting in children will decrease. Low, exclusive breastfeeding is one of the triggers for stunting in toddlers. Conversely, good breastfeeding by the mother will help maintain the child's nutritional balance so that normal child growth is achieved. Breast milk is needed during the baby's growth period to fulfill its nutritional needs. Therefore, mothers are obliged to provide exclusive breastfeeding to babies from birth to 6 months of age and continue to provide breastfeeding until the baby is two years old to meet the baby's nutritional needs.
From exclusive breastfeeding, only 19 people were given exclusive breastfeeding, and 39 children were not. So, toddlers who do not get exclusive breastfeeding are at risk of stunting. As evidenced by the babies not being given exclusive breastfeeding, 33 were short, and six were very short (Syahlis & Mirza, 2021).

The involvement of this research in services can be demonstrated by the increased interest of mothers to participate in activities of the ASI Support Group (KP ASI), where these activities can increase the knowledge of mothers of toddlers about the importance of breastfeeding for the growth of toddlers to reduce the incidence of stunting so that our mothers of toddlers are motivated to provide Exclusive breastfeeding so that the incidence of toddler stunting decreases. Providing education about the importance of breastfeeding for babies to the community, especially to families who have toddlers, can also be useful for reducing the incidence of stunting in Candipuro Village (Aryani & Azizah, 2022).

CONCLUSION

The research results obtained in this study include a significant relationship between exclusive breastfeeding and the incidence of stunting in toddlers in Candipuro Village. This is based on stunting in Candipuro Village, which is dominated by short toddlers and toddlers who are not given exclusive breastfeeding. Exclusive breastfeeding for toddlers is essential to improve toddler nutrition so that toddlers have a small enough possibility to fall into the category of toddlers with stunting.

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CONFLICT OF INTEREST

There isn't any conflict of interest.

REFERENCES


