The Relationship Between Parenting and Nutrition-Aware Family Behavior with The Incidence of Stunting in Toddlers at Klaten Regency Central Java Province

Linda Rosalina1, Brivian Florentis Yustanta2, Novia Wahyu Wardani3, Devin Mahendika4, Ponco Indah Arista Sari5, Tanwir Djafar6

1 Padang University, Sumatera Barat, Indonesia.
2 STIKES Karya Husada Kediri, Jawa Timur, Indonesia.
3 Semarang University, Jawa Tengah, Indonesia.
4 Andalas University, Sumatera Barat, Indonesia
5 Muhammadiyah University, Lamongan, Indonesia
6 STIKES Bhakti Peritiwi Luwu Raya, Sulawesi Selatan, Indonesia

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Corresponding Author: Linda Rosalina
anggagussman775@gmail.com

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Abstract: The Nutrition Awareness Family (Kadarzi) is an Indonesian government program that aims to address the problem of malnutrition. The indicators for assessing KADARZI status are weighing, eating a variety of foods, breastfeeding, use iodized salt, consume vitamin A. Babies are weighed every month to monitor their growth and development. Infants aged 1 to 5 years are weighed every month at the Posyandu. This study aims to determine the relationship between the application of the Kadarzi behavior and the incidence of stunting in toddlers aged 24-59 months. This correlative study used a cross-sectional design. Research that focuses on measuring and collecting data at one time is done by correlating the independent variables and the dependent variable. Family that has implement KADARZI and have fulfill whole specified indicator with Good as many as 28 families with percentage 56%. 22 families Not yet apply the KADARZI program with percentage 44%. Conclusions obtained from study This is the connection between implementing family behavior KADARZI with incident stunting in the district Klaten Province Central Java shown from p-value 0.011.

Keywords: Nutrition; Parenting; Stunting; Toddlers

Introduction

Nutritional status is the health status of a person or group of people caused by the intake, consumption and use of nutrients. Factors causing malnutrition in children under five are divided into two categories, namely direct and indirect factors. The direct factors are infectious diseases and the type of food consumed, both qualitatively and quantitatively. Indirect factors include socio-economic, birth spacing too close, education, knowledge, ignorance about the relationship between diet and health, prejudice against certain foods, excessive preference for certain foods, income, inadequate education, poor environmental hygiene, food security and low household attitudes towards health services (Irianti, 2018; SJMJ et al., 2020).

Malnutrition at an early age will affect the reduced level of intelligence later in life (Masthalina et al., 2013). Malnutrition also affects mental development, physical development, productivity and work ability. Malnutrition in the womb and childhood weakens a child's intelligence. The brains of children who suffer from malnutrition are smaller than the average brain size and their brain cell capacity is 15-20% less than that of children who are well nourished (Anisa et al., 2019).

Toddlers are the next generation who really need input purposeful balanced nutrition in expedite growth and development for his future. This age is an age that is...
vulnerable to experiencing growth disorders in the form of stunting (Fahmi et al., 2023). Stunting is a chronic malnutrition problem caused by inadequate nutritional intake over a long period of time due to a diet that does not meet nutritional needs. Fetal stunting begins in the womb and does not appear until the child is two years old (Hikmah et al., 2022; Rahmadhita, 2020). Unbalanced growth faltering and catch-up growth indicates an inability to achieve optimal growth. This shows that stunting can occur in the group of babies with normal weight if the additional needs are not met properly (Sari & Montessori, 2021).

The total number of toddlers experiencing stunting in Indonesia in 2022 is (1,321,295) with a prevalence of 21.6%. Regions in Indonesia where stunting occurs in toddlers are East Nusa Tenggara Province, West Sulawesi Province, and West Papua Province. The prevalence rate in NTT is 35.3%, while the prevalence of stunting in the provinces of West Sulawesi and West Papua Provinces is: 34.6% and 32.7%. The Nutrition Awareness Family (Kadarzi) is an Indonesian government program that aims to address the problem of malnutrition. Families are expected to be able to independently create an environment that provides the best possible nutrition to improve health. Each indicator of nutrient content has an important role to play in managing and preventing nutritional problems which can be seen from nutritional status. The age that is vulnerable to nutritional problems is toddlers. Nutritional problems that often occur are underweight, stunted and wasting (Wijayanti & Nindya, 2017; Zulfa, 2013).

The indicators for assessing KADARZI status are weighing, eating a variety of foods, breastfeeding, use iodized salt, consume vitamin A. Babies are weighed every month to monitor their growth and development. Infants aged 1 to 5 years are weighed every month at the Posyandu. The purpose of weighing the baby is to find out the health and growth status of the baby, prevent stunted growth, refer the baby to the health center if problems arise, and provide nutritional advice to mothers who receive nutritional advice to monitor the growth and development of children. The role of the family in supporting the success of weighing the baby is to remind each other about the schedule of visits to the posyandu and the division of responsibilities between husbands, wives and other family members in bringing the baby to the posyandu (Ministry of Health of the Republic of Indonesia, 2018). Based on the explanation above, it is very important to examine how the influence of the Kardashians parenting pattern on the occurrence of cases of stunting in children under five.

Method
This correlative study used a cross sectional design. Research that focuses on measuring and collecting data at one time is done by correlating the independent variables and the dependent variable (Rufaida et al., 2020; Utami et al., 2019). The research was carried out from June to July 2023. Samples were taken using technique non-probability quota sampling where taken sample out of 50 families with toddlers experiencing stunting. The independent variable in this research is the family that implements it KADARZI behavior, while the dependent variable is the incidence of stunting in toddlers. The data will be processed using the chi-square test to determine the relationship between the two variables. This study aims to determine the relationship between the application of the Kadarzi behavior and the incidence of stunting in toddlers aged 24-59 months.

Result and Discussion
According to the Directorate General for Regional Development of the Ministry of Home Affairs, there are 187,304 children under five who are stunted in Central Java Province in 2022 with a prevalence of 20.8%. Klaten Regency has stunting incidents of 6949 children with a prevalence of 18.2%. Table 1 shows that there are 5707 toddlers with short body proportions, while toddlers who are categorized as very short are 1244 children (Annur, 2023).

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KADARZI</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>Not KADARZI</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1. Distribution of the Frequency of Stunting Incidents in Toddlers in Klaten District, Central Java Province in 2022

Stunting in children under 5 years is a condition caused by malnutrition during pregnancy and in the first days after birth. However, growth retardation is not seen until the baby is 2 years old. Children aged less than 5 years with a z-score less than -2SD/standard deviation (stunting) and less than -3SD (severely stunting) (Gaston et al., 2022; Nisar et al., 2020; Siana et al., 2022).

Table 2. Nutrition Awareness Families (KADARZI) in Klaten District, Central Java Province

Research conducted in the District Klaten Province Central Java took sample as many as 50 samples family.
Table 2 shows that from sample taken _ is known as many as 28 families (56%) who have implemented KADARZI, while 22 families (44%) had not apply KADARZI inside life his family.

Family that has apply known KADARZI with fulfillment of 5 (five) indicators. A must indicator filled with one family for categorized as with KADARZI is weigh body weight regularly at least 4 times in span of 6 months. Finally, give exclusive breastfeeding where only breast milk is given to baby without exists addition food or drink else, eat variation the food it consists of from source energy like grains, tubers, flour and bananas, contain substance regulator like vegetables and fruits and ingredients building like fish, eggs, chicken, meat or milk, use iodized salt and drink vitamin A supplements (Hadi et al., 2021).

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weigh regularly</td>
<td>41</td>
<td>82.0</td>
<td>Fulfill</td>
</tr>
<tr>
<td>Give exclusive breastfeeding</td>
<td>34</td>
<td>68.0</td>
<td>Does not meet the</td>
</tr>
</tbody>
</table>
| Eat a variety of foods | 37 | 74.0 |%
| Using iodized salt | 33 | 66.0 |%
| Take nutritional supplements in the form of vitamin A | 50 | 100 |%

Weight check carried out with routine at Posyandu can provide knowledge to family, especially housewives about growth and development of toddlers (Utami, 2021). Table 3 explains that fulfilling family _ condition For KADARZI indicators namely weigh body weight _ regular as many as 41 families with percentage 82%. Meanwhile, families who do not fulfil KADARZI indicators were 9 families (18%). Weighing regularly aims to determine the growth curve. Growth shows the increase in body structure and physical size of the child. The growth curve is used as an instrument to evaluate children's growth. Things to pay attention to in weighing are using the same scale every time you weigh it, using a well-calibrated scale and paying attention to the clothes and shoes you are wearing when weighing (Chomaria & PSI, 2020; Monika, 2019).

Exclusive breastfeeding is an indicator that is given to children where only breast milk starts from the age of 0 months to 6 months (Neves et al., 2021; Wijayanti & Nindya, 2017). Families that apply KADARZI are shown in Table 3 as many as 34 families (68%) and families that do not implementing KADARZI for 16 (32%) families. Balanced food for babies aged 0-6 months is enough only from breast milk. Breast milk is the best food for babies because it provides all the nutrients a 6 month baby needs as long as their digestive system is developing and clean. Therefore, every baby must be exclusively breastfed, meaning that they only get breast milk until they are 6 months old. Nutrition from birth naturally has a significant impact on growth, including the risk of stunted growth. Failure to initiate initiation Early breastfeeding (IMD), lack of exclusive breastfeeding (ASI) and early weaning can be reasons for delayed growth from a nutritional perspective. Giving food companion ASI (MP ASI) that needs attention is the quantity of supply, quality and food safety (Irwan & Lalu, 2020). Babies who don't get exclusive breastfeeding will risky caught stunted 61 times more big compared to with toddlers who are exclusively breastfed (Ali, 2021). Giving Excess breast milk can give impact to toddler including fulfilled nutrition, immunity (immune system), economy, and psychological relationship between mother and child. Love is included in matter important for development and mental intelligence of children (Giri, 2013).

Diverse food is food consumed consisting of food groups including staple foods, side dishes, vegetables and fruit. Table 3 include that of 50 samples taken in the district Klaten Province in Central Java, there are 37 families (74%) who apply KADARZI with indicator consume food diverse in life and 13 families (16%) who do not. The more varied the serving, the easier it will be to meet different nutritional needs. If the daily diet is less varied, there will be an imbalance between the supply and demand for nutrients needed for a healthy and productive life (Pramuditya, 2010).

Deep family _ activity cook it include iodized salt for consumed by toddlers. Table 3 show families who use iodized salt in cook and have fulfil KADARZI indicators were 33 families (66%). Families that don't use iodized salt of 17 families or 34% of sample. The use of iodized salt as an indicator of KADAZI. Iodine plays a very important role for the mother and fetus. Lack of iodine intake results in slowing the development of the nervous system and brain, especially lowering IQ and increasing the risk of death in children. In addition, iodine deficiency can cause weakened physical growth in children (cretinism). The effects on the developing brain and nervous system are usually permanent. Good sources of iodine are seafood such as fish, shrimp, shellfish and seaweed. When cooking, iodized salt must
be used (Ministry of Health of the Republic of Indonesia, 2014).

Whole made family _ sample in the district Klatengan Province Central Java in study This entirely fulfil indicator consume vitamin A supplement. Vitamin A is one of the nutritional components needed by the body and has a beneficial effect on eye and body health, especially increasing the body's resistance to infectious diseases. To meet the needs of vitamin A intake and

avoid blindness, high-dose vitamin A supplementation is carried out (DEPKES RI, 2009). Vitamin A supplementation is useful for lower incident disease infection in children especially frequent diarrhea and ARI attack child. Immunization complete basis _ can reduce incident disease in children. The low incident disease This reduce risk stunting, because body healthy child _ can grow without distraction (Putri et al., 2021).

Table 4. KADARZI Relationship with Stunting Incidents in Toddlers

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Short</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Very short</th>
<th>Amount</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>KADARZI</td>
<td>19</td>
<td>73.1</td>
<td>9</td>
<td>37.5</td>
<td>28</td>
<td>56</td>
<td>0.011</td>
<td></td>
</tr>
<tr>
<td>Not KADARZI</td>
<td>7</td>
<td>26.9</td>
<td>15</td>
<td>62.5</td>
<td>22</td>
<td>44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100</td>
<td>24</td>
<td>100</td>
<td>50</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis results using the chi-square test obtained results p-value 0.011. P-value obtained more small of 0.05 (5%). Obtained value from analysis chi square namely: 0.011 <α <0.05. Analysis results show that H 0 rejected and H ¬1 accepted. H 1 is there is connection between families who apply KADARZI with incident stunting in toddlers in the district Klaten Province Central Java. Research conducted by (Mosarofah et al., 2020) that there is a relationship between the behavior of the Nutrition Aware Family (KADARZI) with the incidence of stunting in toddlers aged 24 - 59 months (Saenal, 2019).

There is a significant relationship between KADARZI behavior and the incidence of stunting in toddlers also obtained from Anggraini (2020) in Songan a Village. Therefore, balanced nutrition is very necessary in child development process (Fitawijamari et al., 2019). Research conducted by Hamid et al. (2023) explains in a manner detailed related connection KADARZI behavior with incident stunting namely: weigh body weight regularly, exclusive breastfeeding, consuming food diverse, using iodized salt and drinking supplement nutrition. Results obtained form p-values from all indicators gain value ≤ 0.05 so there is connection related to these variables.

Conclusion

Research in the District Klatten Province Central Java uses 50 samples family. Incident stunting that occurs there are 26 toddlers short with percentage of 52% and 24 children under five very short with percentage 48%. Family that has implement KADARZI and have fulfil whole specified indicator _ with Good as many as 28 families with percentage 56%. 22 families Not yet apply the KADARZI program with percentage 44%. Conclusions obtained from study This is there is connection between implementing family _ behavior KADARZI with incident stunting in the district Klatten Province Central Java shown from p-value 0.011.

Author Contributions

The authors of this article consist of six people. The completion of this article was carried out cooperatively, each stage of preparation was carried out together.

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Conflicts of Interest

The authors declare no conflict of interest.

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