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Enrichment: Journal of Multidisciplinary Research and Development

Factors Causing Stunting In Toddlers Aged 0 To 5 Years In Coastal Communities

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ARTICLE INFO

Keywords:
Stunting, toddlers, causal factors, coastal areas.

ABSTRACT

In Indonesia, Stunting is a current issue with nutrition. About one in four children worldwide has stunted growth or stunting. When the nutritional status of a child is assessed using length, whether height and their z-score is below the WHO-MGRS (Multicentre Growth Reference Study) criteria in 2005, they are considered short toddlers. Children with z-score -3SD or lower are considered as very short toddlers. This study set out to identify the contributing causes to stunting in coastal areas. Quantitative research is the chosen research methodology. This type of study was conducted in the working space of Posyandu cadres in the village of Sialang Buah for the coastal area. It is a cross-sectional study that uses analytical methods. Based on that findings It might be argued that the findings of our coastal community, specifically that village by Sialang Buah, does not now have stunting but is susceptible to it. In Sialang Buah Village, toddlers are at risk for stunting because the mother's level of education is low, that parents' level on labor there is low, which results in less income.

INTRODUCTION

In Indonesia, stunting is an existing nutritional problem. About one in four children worldwide has stunted growth (Organization & UNICEF., 2013). When a child's nutritional status is determined by length or height and their z-score falls under the criteria of WHO-MGRS (Multicentre Growth Reference Study) in 2005, they are considered short toddlers. Children with a z-score of -3SD or lower are considered very short toddlers (Pusdatin Kemenkes, 2015) (Usman & Umar, 2020) (Sanggelorang, 2022).

In Riskesdas 2013,stunting rate was 37.2%, but in 2016, documented nutritional status findings were 27.5%, much higher than the WHO guideline of <20%. In Indonesia, 8.9 million children experience stunted growth and development, or one in three children. Stunted growth or stunting refers to the state of more than age in general (Desa et al., 2018). Children aged 2 to 5 years need special attention when it comes to their nutritional needs because they have been growing and developing rapidly, and because they no longer receive breast milk, they have to rely solely on food to meet their nutrition.

Stunted growth or stunting, including widespread health problems. Stunting was prevalent in 28% of people worldwide, 40% in South and East Africa, and 38% in South Asia between 2000-2007, according to UNICEF data. in contrast to the WHO's ban on "non-public health issues" for public health issues. Young children are more likely to be stunted in developing countries. This is shown by 30% of stunted growth problems in non-developed or developing countries. (Communication, 2009) (Ikhtiarti et al., 2020).

In general, people who live in coastal areas of Southeast Sulawesi people who live in coastal areas of Southeast Sulawesi have minimal knowledge and low family socioeconomic conditions, so that children's nutritional needs are not met (Leo et al., 2018). In addition, low breastfeeding is also associated with malnutrition. So that by WHO and nationally it is recommended to provide breast milk until the age of 2 years (Vaivada et al., 2020) (Widiastity & Harleli, 2021).

This study aims to determine the factors of stunting in infants under the age of five years in coastal areas.

METHOD

Quantitative research is the chosen research methodology. This type of research was carried out in the working area of Sialang Buah Village Posyandu cadres for coastal areas. This research is an analytical research using a cross-sectional research design. The study was conducted on May 20, 2023. All toddlers in the coastal area of Sialang Buah Village became the study population. Some toddlers from the coastal community of Sialang Buah were sampled. Up to 42 participants were sampled using a random sampling procedure. Interviews are used to obtain data. The incidence of stunting was used as a dependent variable in this study, while maternal knowledge, height, low birth weight, history of exclusive breastfeeding, and water quality in coastal cities were used as independent variables. Questionnaires are used to measure each variable.

RESULTS AND DISCUSSION

The distribution of characteristics of research respondents includes: distribution of toddler characteristics, distribution of maternal characteristics and distribution of research variables.

Table 1. Distribution of Toddler Characteristics

Characteristics of Toddlers	n	%
Age		
0-12 months	13	43,4
13-24 months	5	16,6
25-36 months	4	13,4
37-48 months	6	20
49-60 months	2	6,6
Gender		
Male	13	43,4
Woman	17	56,6

From the table above, it can be seen that based on the distribution of age groups respondents are the least in the age group (49-60) months (6.6%) and the most is the age group <12 months (43.4%). And it can be seen that based on gender, the least respondents are men (43.4%) and the most are women (56.6%).

Table 2. Distribution of maternal characteristics

Variable	**n**	**%**
Education level mother		
Low	2	6,7
Tall	28	93,3
Types of Jobs		
Housewives	30	0

From the table above, it can be seen that based on the majority of mothers having a high level of education in coastal areas as many as 28 respondents with a percentage of 93.3% and the type of work as an IRT as many as 30 respondents with a percentage of 100%.

Table 3. Research Variables

Variable	Sum	%
History of Exclusive Breastfeeding		
Already	28	93,4%
Do not	2	6,6%
Mother's Knowledge Level		
Good	7	23,4%
Bad	23	76,6%
Incidence of Diarrhea		
Ever	20	66,5%
Never	10	33,3%
Low Birth Weight		
BBLR	9	30%
Tidak BBLR	21	70%
Water Quality		
Clean	13	43,4%
Not Clean	17	56,6%
Mother's height		
Tall	17	56,6%
Short	13	43,4%

Table 3 shows that there is a relationship between exclusive breastfeeding, diarrheal infectious diseases, low birth weight (BBLR), availability of clean water, maternal height to stunting in children aged 0 to 5 years in Sialang TBuah Village. The ability of mothers' knowledge shows a very close relationship with the incidence of stunting in Sialang Buah village.

Discussion

1. Exclusive breastfeeding

Exclusive breastfeeding means only fully breastfeeding for the first 24 weeks or six months of life after birth. However, there are some exceptions; With a doctor's prescription, babies can take vitamin and mineral drops (Berkas et al., 2017). According to previous research, stunting in children may be caused by no exclusive breastfeeding. Because there is a known correlation between the incidence of stunting and exclusive breastfeeding, (Ni'mah & Nadhiroh, 2015) found that babies in the first six months not breastfed had a greater stunting rate than normal babies.

This finding, such as in 2016, found that infants under the age of five in Banda Aceh without exclusive breastfeeding can be stunted. And exclusive breastfeeding is a factor in the occurrence of stunting in children (Rahmad & Miko, 2016). Basically, the benefits of breast milk are as a source of high-quality protein and easy to obtain, increase children's immunity and can affect the nutritional status of children and accelerate recovery from illness and facilitate labor (Desa et al., 2018).

2. Mother's Knowledge of Toddler Nutrition

This study shows a relationship between the level of knowledge and the prevalence of stunting. The majority of mothers who participated in this survey only completed early education. Knowledge is very closely related to education, where it can be assumed that a highly educated person will have extensive knowledge. The results of this study support Farida's 2018 research which found a strong relationship between fathers and mothers' education with the possibility of stunting (stunting growth) toddlers ($p = 0.017$). Stunting is more likely to occur in children of poorly informed mothers than in mothers with strong knowledge (Meliani, 2022).

Better educated mothers are more likely to use their knowledge to improve their children's lives. The lack of knowledge about nutrition and maternal skills when applying nutritional knowledge in everyday life

are two factors that contribute to nutritional problems in toddlers. Age, where the process of mental development increases with age, intelligence, or the ability to learn and think abstractly to adapt to new situations, are two components that have an impact on a person's nutritional knowledge.

3. Incidence of diarrhea

These findings suggest a link between infectious diseases and stunting. The findings revealed that 66.5% of toddlers in the stunting group had been affected by the disease. This study supports the findings (Picauly & Toy, 2013) which found that children with a history of infectious disorders have a higher risk of stunting than children without such a history. The development and growth of children can be hampered by infectious infections. Children who have infectious infections can experience delays in growth and development.

Diarrhea and ARI are the most common infectious diseases. Malnourished children have weakened immune systems and get sick quickly, which makes it harder for them to fight off diseases and other conditions. The high incidence of infectious diseases, especially diarrhea, intestinal worms, and ARI, is associated with infectious disorders. Many of these variables have to do with how well basic health services are provided, especially in terms of spending, environmental quality, and living a healthy lifestyle. Environmental quality, especially the accessibility of clean water, sanitation sources, and healthy living practices such as the habit of washing hands with soap before eating, urinating in latrines, and so on.

4. Low Birth Weight

Stunting has several causes, one of which is low birth weight. A previous study conducted by Paudel, et al. in 2012, babies with low birth weight are 7 times more likely to develop stunted growth or stunting than healthy babies (Putri et al., 2022) (Oktarina & Sudiarti, 2013). Newborn scales are one indication of a healthy baby. A common measure of fetal development during pregnancy is birth weight. Low birth weight babies are more sensitive later in life to harmful environmental impacts (Umboh et al., 2013).

The first six months of life are when low birth weight has the greatest impact on height growth. If the baby can improve his nutritional status in the first six months, it is likely that the baby will grow normally and prevent stunting later in life (Adair and Guilkey, 1997).

5. Water Quality

Water quality in coastal communities is not clean or good. These findings thus show a link between stunting and water quality. These results are fully consistent with Eka Mayasari's research (Mayasari et al., 2022). According to its findings, there is a link between stunting and water quality in 2022. Because children will experience diarrhea from unclean water with low quality. This occurs due to the presence of 138Indonesian bacteria and other substances in the water which cause diarrhea and EED in children (Olo, 2020). Children will experience nutritional disorders in the form of stunting if diarrhea lasts more than two weeks. Therefore, the need for guaranteed water consumption starting from protected springs must be a concern for all stakeholders, especially families. To reduce the occurrence of stunting in children under five years old in 138Indonesia, good water consumption is needed, derived from springs, containers, quality, collection and protected processes, especially in the first thousand days of life (Olo, 2022).

6. Mother's height

Other risk factors for stunting are maternal body size; If the mother is short, there is a chance that she will give birth to a stunted child. According to the findings of previous studies, maternal body size is related to the prevalence of stunting in infants, especially mothers with body sizes below 150. Short mothers were 1.98 times more likely to give birth to short children than average-sized mothers. (Nur Afia Amin, 2014).

CONCLUSION

Based on what we observed, it can be said that coastal communities, especially Sialang Buah Village, are currently not stunted but are vulnerable to stunting. In Sialang TBuah Hamlet, toddlers are at risk of stunting due to low maternal education levels, low parental employment rates, resulting in reduced income.

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