Journal for Re Attach Therapy and Developmental Diversities
eISSN: 2589-7799
2023 August; 6 (9s2): 868-873

The Risk Factors of Stunting in Toddlers: A Psychological Perspective

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Received: 11- June -2023
Revised: 02- July -2023
Accepted: 08- August -2023

Abstract

Stunting is a condition of failure to thrive in toddlers due to chronic nutritional deficiency, and it can affect low intelligence and decreased physical capacity, reducing productivity and economic slowdown. This study aims to determine the risk factors for stunting in toddlers aged 6-59 months in the coastal area of the north Moramo district.

The type of research used was quantitative analytical research through an observational case-control study design. The population in this study amounted to 870 toddlers. The sampling technique used simple random sampling with a total sample of 90 and divided into groups of 45 case samples and 45 control samples.

This study reveals that exclusive breastfeeding is a risk factor for stunting, with an odds ratio of 22.69, and parenting feeding is a risk factor for stunting, with an odds ratio of 10.085. Family income is a risk factor of stunting with an odds ratio of 16.779 in toddlers aged 6-59 months in the north Moramo sub-districts coastal area, with the Chi-square analysis results with p=0,000<0,005.

The research suggests a need for socialisation about stunting to increase public knowledge.

Keywords: Stunting, exclusive breastfeeding, parenting feeding, income family

Introduction

Stunting is a condition of failure to thrive in children under five due to chronic malnutrition. Stunting is one of the nutrients based on the PB/U or TB/U index where in anthropometric standards for assessing children's nutritional status, the measurement results are in the threshold (Z-Score) <-2 SD to -3 SD (short/stunted) and <-3 SD (very short/very stunted). Stunting is a chronic nutritional problem caused by inadequate dietary intake for a long time due to feeding that is not per nutritional needs (Hidayah, Siswanto, & Pertiwi, 2021).

The prevalence of stunting children worldwide in 2019 was 144 million (21.3%). Asia has the world's highest stunting population, with 78.2 million children (54%). Southeast Asia ranks 2nd in Asia, with a prevalence of stunting children, namely 13.9 million children (24.7%). Indonesia is the 3rd country with the highest majority of stunting in Southeast Asia (27.67%) (Zahrawani, Nurhayati, & Fadillah, 2022).

Based on data from the Ministry of Home Affairs, in 2020, there were 797,937 stunted children in Indonesia, this figure is a combination of 556,283 short toddlers and 241,654 very short toddlers, and in 2021 there were 1,342,026 children three suffering from stunting 982,330 short and 359,696 very short toddlers (Dirjen BPD KEMENDAGRI, 2021).

Based on data from the Southeast Sulawesi Provincial Health Office in 2019, there were 2,920 stunted toddlers. This number combines 1,811 short and 1,109 very short toddlers (Nofitasari, Islaeli, & Yusnayanti, 2021). According to data from the Ministry of Home Affairs in 2021 in Southeast Sulawesi, the number of toddlers experiencing stunting is 9,388. This number combines 6,251 short and 3,137 very short toddlers (Dirjen BPD KEMENDAGRI, 2021). Based on data obtained from the Southeast Sulawesi Provincial Health Office, the magnitude of the problem in South Konawe Regency is Underweight (13.6 %), stunting (21.6 %), wasting (5.2% %), and Overweight (12.4 %). %). %).). It shows that stunting is a significant problem that requires further intervention to prevent stunting (Dinkes Sultra, 2020).

Factors determinant of stunting consists of direct and indirect factors. Natural factors consist of food consumed and infection status, while indirect factors from nutritional problems are the availability and patterns of household consumption, parenting, health services and environmental health(Risky, Nofitasari, & Lisnawati, 2021). Family characteristics also influence the nutritional status of children under five, including household income, number of household members, household food expenditure, mother's occupation, and mother's education level (Jayarni & Sumarmi, 2018). Based on the study's results, it is known that there are three main factors causing stunting, namely parenting, breastfeeding and socio-economic factors (income/income).

Based on the results of initial interviews with ten respondents in the coastal area of North Moramo Regency, it was found that 5 out of 10 respondents gave exclusive breastfeeding to their babies. However, most are not done until the child is two years old. At the same time, the other five respondents gave breast milk to their children until the age of 2 years and alternated with MP-ASI, which was suitable for children. Most people living in North Moramo Regency's coastal areas work as fishermen and stone crushers. Based on direct interviews conducted by researchers, it is known that 7 out of 10 respondents have low income. Based on the description above, the researcher wants to study "Risk Factors for Stunting Incidence in Toddlers Age 6-59 Months in the North Moramo Regency Coastal Area".

Literature Survey

Stunting is a chronic malnutrition problem caused by inadequate nutritional intake for a long time due to feeding that does not meet dietary needs. According to the World Health Organization (WHO) Child Growth Standard, stunting is based on an index of body length for age (TB/U) with a limit (z-score) of less than -2 SD. Stunting is a failure to thrive in children under five due to chronic malnutrition and exposure to repeated infections, especially in the first 1000 days of life, from fetus to child aged two years (Tatu, Mau, & Rua, 2021).

According to the Ministry of Health (2017), stunting is caused by multi-dimensional factors:

1) Poor parenting practices, including lack of knowledge about health and nutrition before and during pregnancy, 60% of children aged 0-6 months do not receive exclusive breastfeeding, and 2 out of 3 children aged 0-24 months do not receive complementary feeding.
2) Limited health services, including quality ANC-Ante Natal Care, Post-Natal and early learning services. 1 in 3 children aged 3-6 years who are not registered in PAUD, 2 out of 3 pregnant women have not consumed adequate iron supplements, decreased the presence of children in Posyandu, and do not have sufficient access to immunisation services.
3) Lack of access to clean water and sanitation, including 1 in 5 households still defecating in open spaces and 1 in 3 homes do not have access to clean drinking water.

Exclusive breastfeeding is breastfeeding from mother to baby until six months without additional food and beverages except for drugs, vitamins, and minerals based on 24-hour recall. At the age of 0-6 months, breast milk alone is the best food for babies. At that age, although the baby does not get other food or drink, its nutritional needs can be met through breast milk (ASI), called exclusive breastfeeding. The baby's dietary needs are met by 60% from breastfeeding and 40% from complementary feeding (MP-ASI). If breastfeeding and complementary feeding are inappropriate, the child can experience nutritional problems (Anggraini, 2020). Parenting patterns are all forms and processes of interaction between parents and children that can influence the development of the child's personality. The interaction of parents in learning determines the child's character later (Rakhmawati, 2015). Parenting patterns of mothers who have stunted children have the habit of giving food to toddlers without paying attention to the needs and nutritional content (Nugroho, Purnami, Perdana, Falerina, & Nurfaizi, 2021).

Food availability in the household will be fulfilled if the people's purchasing power is sufficient. The community's social economy is a factor that plays a role in determining the purchasing power of families. Families with high incomes will have easier access to education and health so that the nutritional status of children can be better (Rahma & Nadhiroh, 2017).

Methodology

This type of research is quantitative analytic research through an observational case-control study design. This type of research emphasises the measurement time/observational independence and Dependent variables only once simultaneously (Nursalam, 2018). The sample in this study was toddlers aged 6-59 months, as many as 90 toddlers, including 45 toddlers who did not experience stunting as a control and 45 toddlers aged 6-59 months who experienced stunting as a case.

Result

Table 1. Distribution of respondents based on the incidence of stunting in the Coastal Area of North Moramo District

Stunting	n	%
Case	45	100
Control	45	100
Total	90	100

Table 2. Bivariate analysis of risk factors for stunting in Toddlers.

Variable	Stunting			
	Case		Control	
	n	%	n	%
Breastfeeding				
Pattern	14	15,6	41	45,6
Exclusive	31	34,4	4	4,4
Not exclusive				
Parenting				
pattern	15	16,7	38	42,2
Good	30	33,3	7	7,8
Less				
Family income				
Middle Income	7	7,8	34	37,8
Low income	38	42,2	11	12,2
Total	45	100	45	100
p=0,000				

Discussion

Breastmilk is a nutritional intake per the needs that will help the Growth and development of children. Babies who do not get enough breast milk have poor dietary intake and can cause malnutrition, one of which can cause stunting. The results showed that in the case group, 14 respondents (15.6%) with exclusive breastfeeding patterns experienced stunting, and 31 respondents (34.4%) did not exclusively experience stunting. In the control group, four respondents (4.4) experienced stunting. It is due to the inadequate nutrition of children that should be obtained through breast milk because it contains nutritional intake that is per the needs that will help the Growth and development of children. Babies who do not get enough breast milk have poor dietary intake, which can cause malnutrition. The content of breast milk is in the form of calcium to maximise Growth, especially height and can avoid the risk of stunting.

The United Nations Children's Fund UNICEF and the World Health Organization (WHO, 2017) recommend that children only be breastfed with breast milk (ASI) for at least six months. Nofitasari et al. (2022) stated that breast milk plays a crucial role in the Growth and development of toddlers because breast milk contains calcium and various nutrients needed for the Growth and development of infants and toddlers. Based on the statistical test results, the Chisquare X2 count is 31.605 > the X2 table value is 3.841 with a -a value of 0.000. It indicates that H0 is rejected and Ha is accepted, meaning that breastfeeding patterns are a risk factor for stunting in the Coastal Region of North Moramo District.

The feeding parenting pattern in this study showed as many as 15 respondents (16.7%) with adequate feeding patterns in the case group experienced stunting. As many as 38 respondents (42.2%) in the good-feeding control group did not experience stunting—as many as 30 respondents (33.3%) with less stunting feeding patterns. The interviews and observations revealed that the community in the Coastal area of North Moramo District applied a feeding routine that was still lacking. It is because many parents do not give breast milk (ASI) exclusively, besides the habit of people who provide food other than breast milk before six months. According to the interview results, mothers tend to give their children food intake other than breast milk due to the child's constant crying and demands for work that must be completed. Therefore, most children are given complementary foods six months after birth. The study found that as many as 15 respondents (16.7%) had adequate feeding patterns but experienced stunting. This incident is thought to be due to external factors. It is supported by the statement of the respondent's mother, who stated that her child was previously sick, so the researchers concluded that this was the cause of stunting in children. The feeding pattern is a person's behaviour that can affect nutritional status. Feeding can provide an overview of nutritional intake, including the type, amount, and schedule in fulfilling nutrition (Kemenkes RI, 2018).

WHO (2018) recommended exclusive breastfeeding for the first six months of life and continued with the introduction of complementary feeding by continuing to breastfeed until the age of 2 years.

Family income in this study showed that as many as 38 respondents (42.2%) with less income experienced less stunting. This incident is thought to be due to the parents' lack of income, so they cannot meet the nutritional needs of their children. It is supported by the results of interviews, which found almost 50% of the people have low incomes. The interviews revealed that the general income of the community was below the minimum wage > Rp1,000,000 per month. In addition, in this study, as many as 11 respondents (12.2%) with less income but did not experience stunting. Most respondents have jobs as fishermen, making it possible to fulfil the nutritional needs of children through protein. The previous opinion reinforces that adequate protein intake can prevent stunting in children. Families with relatively low incomes will have difficulty meeting their nutritional needs. This situation usually occurs in toddlers from low-income families (Pacheco, Picauly, & Sinaga, 2017). This study's results align with the theory of Fikawati and Shafiq (2014), where the socio-economic level is related to the family's purchasing power. The family's ability to buy food depends, among other things, on the size of the family's income, the price of the food itself, and the level of management of land resources(Fikawati, Syafiq, Purbaningrum, & Karima, 2014).

Conclusion

Exclusive breastfeeding is a risk factor for stunting in toddlers aged 6-59 months in the coastal area of the North Moramo sub-district, with an Odds Ratio of 22.69. Feeding parenting is a risk factor for stunting in toddlers aged 6-59 months in the coastal area of the North Moramo sub-district, with an Odds Ratio of 10.085. Family income is a risk factor for stunting in toddlers aged 6-59 months in the North Moramo sub-district coastal area with an Odds Ratio of 16,779.

Acknowledgement

We thank the college for allowing us to conduct the research and the respondents' willingness to participate in this study.

Conflict of Interest

The authors declare no conflict of interest.

References

1. Anggraini, S. (2020). Pengaruh Media Audio Visual Terhadap Tingkat Pengetahuan Dan Sikap Pada Ibu Hamil Tentang Pencegahan Stunting Di Desa Cinta Rakyat. *Jurnal Ilmiah Kebidanan Imelda*, *6*(1).
2. Dinkes Sultra. (2020). *Data Stunting Provinsi Sultra*. Kendari.
3. Dirjen BPD KEMENDAGRI. (2021). *Petunjuk Teknis Penilaian Pemerintah Provinsi Terhadap Kinerja Pemerintah Kabupaten/Kota Dalam Pelaksanaan 8 (Delapan) Aksi Konvergensi Penurunan Stunting* (2nd ed.). Jakarta: Direktur Jendral Bina Pembangunan Daerah Kementrian Dalam Negri.
4. Fikawati, S., Syafiq, A., Purbaningrum, R. P., & Karima, K. (2014). Energy Consumption of Lactating Mothers: Current Situation and Problems. *Makara Journal of Health Research*, *18*(2), 58–64. https://doi.org/10.7454/msk.v18i2.4068
5. Hidayah, A., Siswanto, Y., & Pertiwi, K. D. (2021). Riwayat Pemberian MP-ASI dan Sosial Ekonomi dengan Kejadian Stunting pada Balita. *Jurnal Penelitian Dan Pengembangan Kesehatan Masyarakat Indonesia*, *2*(1), 76–83. https://doi.org/10.15294/jppkmi.v2i1.47526
6. HUBUNGAN PENGETAHUAN IBU TENTANG GIZI DENGAN KEJADIAN STUNTING PADA https://stikes-yogyakarta.e-journal.id/JKSI/article/view/153
7. IL-2/IL-2 Receptor Pathway Plays a Crucial Role in the Growth and https://www.frontiersin.org/articles/10.3389/fmicb.2020.00356/full
8. Jayarni, D. E., & Sumarmi, S. (2018). Hubungan Ketahanan Pangan dan Karakteristik Keluarga dengan Status Gizi Balita Usia 2 – 5 Tahun (Studi di Wilayah Kerja Puskesmas Wonokusumo Kota Surabaya). *Amerta Nutrition*, *2*(1), 44. https://doi.org/10.20473/amnt.v2i1.2018.44-51
9. Proceedings | ICVEAST - Browse Articles - MDPI. https://www.mdpi.com/2504-3900/83/1
10. Kemenkes RI. (2018). Bulletin Stunting. *Kementerian Kesehatan RI*, *301*(5), 1163–1178.
11. Mamasa Regency - Wikipedia. https://en.wikipedia.org/wiki/Mamasa_Regency
12. Mwene-Batu, P., Bisimwa, G., Baguma, M., Chabwine, J., Bapolisi, A., Chimanuka, C., Molima, C., Dramaix, M., Kashama, N., Macq, J., & Donnen, P. (2020). Long-term effects of severe acute malnutrition during childhood on adult cognitive, academic and behavioural development in fragile African countries: The Lwiro cohort study in the Democratic Republic of the Congo. PLoS One, 15(12), e0244486.
13. Nofitasari, A., Islaeli, I., & Yusnayanti, C. (2021). Analisis Faktor Determinan dalam Upaya Pencegahan Stunting Anak Usia 2-5 Tahun. *Jurnal Aisyah : Jurnal Ilmu Kesehatan*, *6*, 5–8. https://doi.org/10.30604/jika.v6is1.752
14. Nugroho, P. S., Purnami, N., Perdana, R. F., Falerina, R., & Nurfaizi, A. (2021). Enhancing Community Service Activities on Early Detection and Management of Hearing Impairment in the Era of the Covid-19 Pandemic. *Jurnal Pengabdian Masyarakat Dalam Kesehatan*, *3*(2), 33. https://doi.org/10.20473/jpmk.v3i2.25545
15. Nursalam. (2018). *Konsep Dan Penerapan Metodologi Penelitian Ilmu Keperawatan*. (Tim Editor Salemba Medika, Ed.), *Salemba Medika* (2nd ed.). Jakarta.
16. Pacheco, C. D. R., Picauly, I., & Sinaga, M. (2017). Health, Food Consumption, Social Economy, and Stunting Incidency in Timor Leste. *Jurnal Kesehatan Masyarakat*, *13*(2), 261–269. https://doi.org/10.15294/kemas.v13i2.11248
17. Rahma, A. C., & Nadhiroh, S. R. (2017). Perbedaan Sosial Ekonomi Dan Pengetahuan Gizi Ibu Balita Gizi Kurang Dan Gizi Normal. *Media Gizi Indonesia*, *11*(1), 55. https://doi.org/10.20473/mgi.v11i1.55-60
18. Risky, S., Nofitasari, A., & Lisnawati. (2021). Pengaruh Promosi Kesehatan Dengan Media Simulasi Ular Tangga Terhadap Tingkat Pengetahuan Ibu dalam Upaya Pencegahan Stunting Di Wilayah Kerja Puskesmas Tampo Kabupaten Muna. *Preventive Journal*, *5*(2), 6–10. Retrieved from http://ojs.uho.ac.id/index.php/preventifjournal/article/view/18963

19. Tanzania : PAGE set to help TANZANIAN leg of CPAR in 2014. (2014). MENA Report, n/a.
20. Tatu, S. S., Mau, D. T., & Rua, Y. M. (2021). Faktor-Faktor Resiko Yang Berhubungan Dengan Kejadian Stunting Pada Balita Di Desa Kabuna Kecamatan Kakuluk Mesak Kabupaten Belu. *Jurnal Sahabat Keperawatan*, *3*(1), 1–17. https://doi.org/10.32938/jsk.v3i01.911
21. The Institute for the Advancement of Minority Health leads the effort to distribute bottled water to local residents. (2021, April 1). Jackson Advocate, 83(27), 9A.
22. View of ENHANCING COMMUNITY SERVICE ACTIVITIES ON EARLY DETECTION AND https://e-journal.unair.ac.id/JPMK/article/view/25545/pdf
23. WHO. (2017). *World Health Statistic*.
24. Zahrawani, T. F., Nurhayati, E., & Fadillah, Y. (2022). Hubungan Kondisi Jamban Dengan Kejadian Stunting Di Puskesmas CicalengkaTahun 2020. *Jurnal Integrasi Kesehatan & Sains*, *4*(1), 1–5. https://doi.org/10.29313/jiks.v4i1.7770