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ORIGINAL RESEARCH

PREVALENCE OF STUNTING EVENTS IN CHILDREN AGED 6-59 MONTHS: A METHA ANALYSYS

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ABSTRACT

Stunting becomes a very serious problem because it is associated with a greater risk of pain and death, obesity, and future non-communicable diseases, short adults. Stunting is an intergenerational problem in the world. This study is a meta-analysis study and a systematic study. Researchers defined the feasibility criteria using the PICO model: the population of children is 6-59 months, intervention is non-exclusive breastfeeding, comparison is exclusive breastfeeding and outcome is stunting. The articles used were obtained from several electronic databases including PubMed, Science Direct and google Scholar. The articles used in this study are articles that have been published from 2018-2022. The process of searching for research data using the search words Exclusive breastfeeding AND Stunting AND 6-59 months AND Cross-Sectional AND Adjusted Odds Ratio Articles were collected using prisma diagrams and analyzed using the Review Manager 5.4 application. The results of the meta-analysis study in this study there are 3 articles consisting of the State of Ethiopia. Breastfeeding cannot exclusively increase the risk of stunting in children (aOR= 1.20; CI 95%= 0.49 to 2.91; I2= 89%) exclusive breastfeeding affects the incidence of stunting in children aged 6-59 months.

Keywords

ASI exclusive, stunting

INTRODUCTION

Stunting in children is one of the major public health problems in the world. Stunting becomes a very serious problem because it is associated with a greater risk of disease and death, obesity, and future non-communicable diseases, short adults, poor cognitive development and low productivity and income (1 and 3). In other words, stunting will affect the quality of human resources in the future.

The World Health Organization (WHO) declared the resolution of global targets on maternal and child nutrition a priority. The main target aims to reduce stunting in children by 40% globally or 3.9% decrease per year between 2012 and 2025 (4). Based on basic health research (Riskesdas) in 2013, the prevalence of stunting toddlers in Indonesia reached 37.2% (6). Based on these results, it can be seen that the prevalence of stunting in Indonesia actually increased by 1.6% in the period 2010-2013 or 0.4% per year. Stunting is an intergenerational nutritional problem.

Stunted women will give birth to babies with low birth weight, then contribute to the cycle of malnutrition in life (3). Premature babies and babies with low birth weight (BBLR) are particularly susceptible to infectious diseases and are at risk of death. Infants who survive the risk of death have an increased risk of becoming malnourished and stunted in the first 2 years of life (9). Factors that contribute to the intergenerational malnutrition cycle include poor maternal nutritional status, infectious diseases, inadequate breast-feeding, poor complementary foods (MPASI), non-optimal parenting and other factors such as economic conditions, family food problems and distance of access to health services (4).

METHOD

This research is a meta-analysis study and systematic study. Researchers defined the feasibility criteria using the PICO model: the population of children is 6-59 months, intervention is non-exclusive breastfeeding, comparison is exclusive breastfeeding and outcome is stunting. The articles used were obtained from several electronic databases including PubMed, Science Direct and google Scholar. The articles used in this study are articles that have been published from 2018-2022. The process of searching for research data using the search words Exclusive breastfeeding AND Stunting AND 6-59 months AND Cross-Sectional AND Adjusted Odds Ratio Articles were collected using PRISMA diagrams, and analyzed using the Review Manager 5.4 application.

RESULTS and DISCUSSION

A. The results of the article review

The article analysis through the literature review included *PubMed, Cochrane, and ScienceDirect.* The keywords are gravidity, pregnant woman, breastfeeding, and Stunting. The article review process can be seen in the flowchart below:

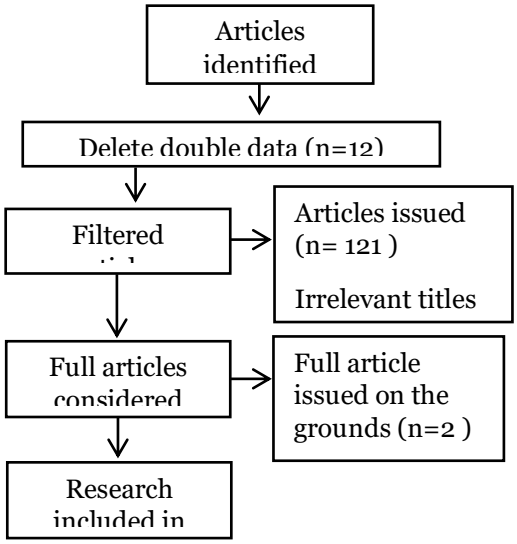
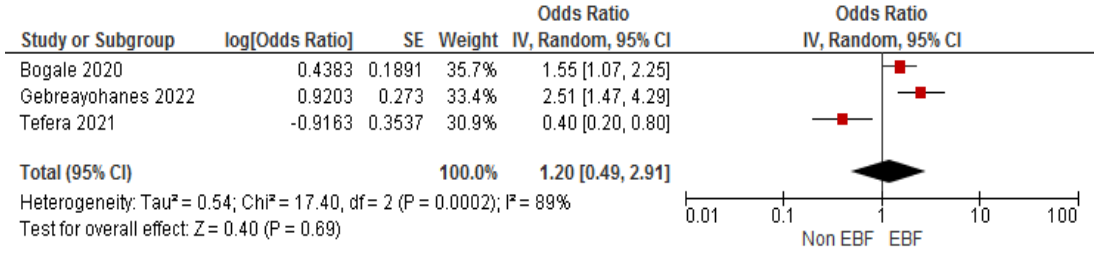


Table 1.Summary of Articles On The Effect of Non-Exclusive Breastfeeding on Stunting

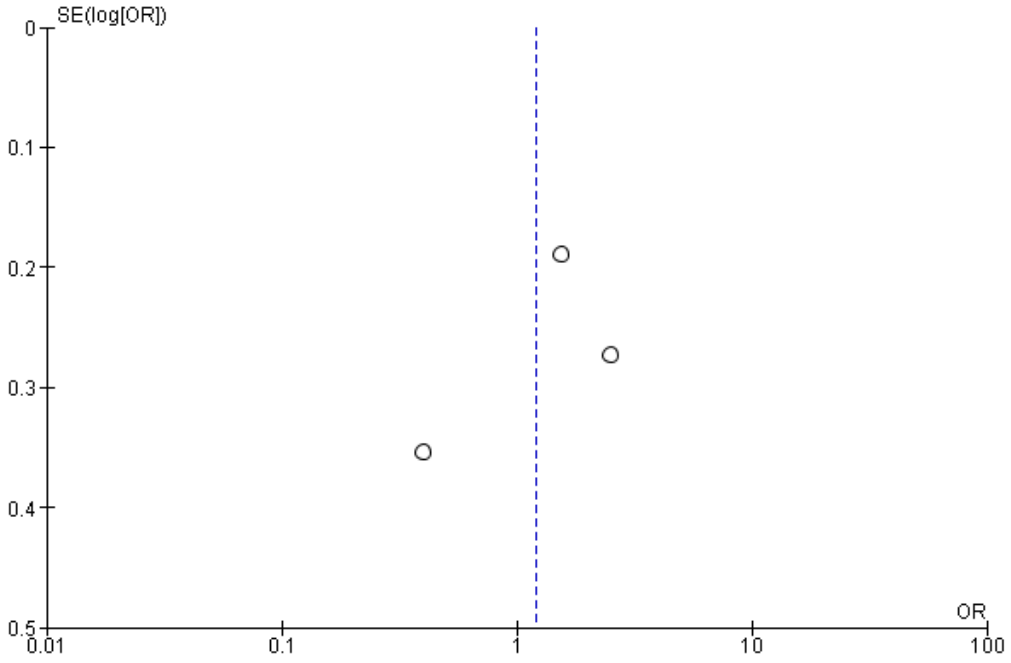
writer (tahun)	Country	Desain Study	Sampel	P Population	I Intervention	C Comparison	O Outcome
Bogale *et al*, 2020	Southern Ethiopia	Cross-sectional	656	Children aged 6-59 months	Breastfeeding is not exclusion	Breastfeeding is not exclusion	Stunting
Gebreayohanes and Id, 2022	Northeast Ethiopia	Cross-sectional	555	Children aged 6-59 months	Breastfeeding ≤ 6 month	Exclusive Breastfeeding > 6 Month	Stunting
Tefera, 2021	Southeast Ethiopia	Cross-sectional	657	Children aged 6-59 months	Ekslusif Breast milk	No Exclusive Breastfeeding	Less likely to stunt

Results of Meta Analysis of the Effect of Non-Exclusive Breastfeeding on Stunting

Forest Plot



Funnel Plot



The results of the meta-analysis study in this study there are 3 articles consisting of the State of Ethiopia. Breastfeeding cannot exclusively increase the risk of stunting in children (aOR= 1.20; CI 95%= 0.49 to 2.91; I2= 89%). Exclusive breastfeeding that is too long is associated with the risk of stunting. This is in line with research conducted by Padmadas that children who get exclusive breastfeeding for up to more than 6 months have a 1.36 times greater risk of being stunted than children who are given exclusive breastfeeding for less than 6 months (9). Exclusive breastfeeding that is given for too long will delay the provision of complementary food. As a result, the child will receive an inadequate intake of nutrients for his growth and development. After 6 months of age, breastfeeding must be accompanied by complementary food because breast milk alone is not able to meet the needs of energy and nutrients.

CONCLUSION

Stunting is a global problem experienced by the world. Research in Ethiopia shows stunting is an intergenerational problem that demands exclusive breastfeeding so as to prevent stunting. By carrying out prevention, among others: conducting routine pregnancy checks, meeting the nutritional needs of pregnant women, giving exclusive breastfeeding, creating a clean environment, providing healthy complementary food, consistently monitoring the growth and development of children and providing complete imuniasation.

REFERENCES

1. Berkman DS, Lescano AG, Gilman RH, Lopez SL, Black M. Effect of stunting, diarrhoeal disease, and parasitic infection during infancy on cognition in late hildhood: a follow-up study.Lancet. 2002;359:564–71.
2. Bogale, B., Gutema, B. T. and Chisha, Y. (2020) 'Prevalence of Stunting and Its Associated Factors among Children of 6 – 59 Months in Arba Minch Health and Demographic Surveillance Site (HDSS), Southern Ethiopia : A Community-Based Cross-Sectional Study', 2020.
3. Brennan L, McDonald J, Shlomowitz R. Infant feeding practices and chronic child malnutritionin the Indian States of Karnataka and Uttar Pradesh. Econ Hum Biol. 2004;2:139–58.
4. Caufield et al. Disease control priorities in developing countries 2nd edition (stunting, wasting and micronutrient deficiency disorder chapter 28) Jamison et al Ed. Washington DC: World Bank; 2006.
5. Hambidge K, Mazariegos M, Kindem M, Wright L, Cristobal-Perez C, Juarez-Garcia L, et al. Infant stunting is associated with short maternal stature. J Pediatr Gastroenterol Nutr.2012;54(1):117–9.
6. Martorell R, Young M. Patterns of stunting and wasting: potential explanatory factors. Adv Nutr. 2012;3:227–33.
7. Nai H, Gunawan I, Nurwanti E. Praktik pemberian makanan pendamping ASI (MP-ASI) bukan faktor resiko kejadian

stunting pada anak usia 6-23 bulan. J Giz dan Diet Indonesia. 2014; 2(3):139-49

8. Organization WH (2014) Global nutrition targets 2025: policy brief series (WHO/NMH/NHD/14.2). Geneva: World Health Organization
9. Paramashanti, Bunga Astria; HADI, Hamam; GUNAWAN, I Made Alit. Pemberian ASI eksklusif tidak berhubungan dengan stunting pada anak usia 6–23 bulan di Indonesia. **Jurnal Gizi dan Dietetik Indonesia (Indonesian Journal of Nutrition and Dietetics** doi:http://dx.doi.org/10.21927/ijnd.2015.3(3).162-174.
10. Santos I, Matijasevich A, Domingues M, BarrosA, Victora C, Barros F. Late preterm birth is a risk factor for growth faltering in early childhood: a cohort study. BMC Pediatr. 2009;9:71.
11. Tefera, T. (2021) 'Prevalence and Factors Associated with Stunting Among Children 6-59 Months in Pastoralist Communities of Southeast Ethiopia'
12. Yisak H, Gobena T, Mesfin F (2015) Prevalence and risk factors for under nutrition among children under five at Haramaya district, Eastern Ethiopia. BMC Pediatrics 15: 212. https://doi.org/10.1186/ s12887-015-0535-0 PMID: 26675579
13. Tamiru MW, Tolessa BE, Abera SF. Under nutrition and associated factors among under-five age children of Kunama ethnic groups in Tahtay Adiyabo Woreda, Tigray Regional State, Ethiopia: Community based study. Int J Food Sci Nutr. 2015;4(3):277-88.