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A SCOPING REVIEW OF PARENTAL DETERMINANTS OF STUNTING IN CHILDREN UNDER FIVE IN LOW AND MIDDLE INCOME COUNTRIES

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ABSTRACT

Background: Stunting in children under five is a critical global health issue, particularly in Low and Middle-Income Countries (LMICs). The aetiology is complex, and parental characteristics are recognised as key determinants. However, a comprehensive synthesis of this evidence is limited.

Objective: This scoping review aims to synthesise and map the available scientific evidence on the parental determinants of stunting in children under five in LMICs.

Method: The review followed the Arksey and O'Malley framework. A systematic search was conducted across four databases for English-language research articles published between 2015 and 2025. After screening, 19 articles (1 qualitative, 18 quantitative) were included for analysis.

Results: The literature synthesis identified three main categories of parental determinants: socio-demographic factors (education, socioeconomic status), biological and psychosocial factors (maternal nutritional status, mental health), and caregiving practices (exclusive breastfeeding, complementary feeding). The majority of studies were cross-sectional, establishing a strong association between these factors and stunting.

Conclusion: Stunting is profoundly influenced by the complex interaction of various parental characteristics. These findings highlight the need for a holistic approach to stunting prevention that goes beyond child nutrition to focus on parental empowerment. Policy interventions should prioritise improving nutritional literacy, providing socioeconomic support, and enhancing maternal mental health care.

Keywords: Stunting; parental determinants; children under five; scoping review; LMICs

INTRODUCTION

Stunting remains a critical public health challenge worldwide, exerting substantial influence on children's long-term wellbeing and developmental trajectories. In an effort to address this, the World Health Assembly (WHA) introduced six global nutrition targets in 2012, to be achieved by 2025, with the reduction of stunting prevalence identified as a priority.[1] Nevertheless, despite extensive programme implementation, the global burden of stunting shows little decline. The 2025 report of the inter-agency Joint Child Malnutrition Estimates (JME) indicated that approximately 150.2 million children under five years of age were stunted in 2024, accounting for about 23.2% of the global under-five population.[2] This figure has been corroborated by the World Health Organisation (WHO), which likewise reported 150.2 million affected children in the same year.[3]

Defined as a child having a low height for their age, stunting is the result of sustained malnutrition and repeated infections during the crucial first 1,000 days of life. This condition can lead to permanent repercussions, including hindered cognitive development, poorer educational attainment, and a higher predisposition to chronic illnesses in adulthood.[4] The underlying causes of stunting are intricate and multifaceted. An increasing amount of research highlights the crucial influence of parental attributes and caregiving behaviours. Numerous studies have established a firm link between stunting and variables such as parental education level, household income, a mother's height and age, and the size of the family.[5] Furthermore, a child's susceptibility to nutritional deficits and infectious diseases is directly heightened by inadequate feeding practices, restricted access to healthcare, and poor environmental sanitation.[6,7] The domestic setting, which may include the presence of

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extended family members, can also play a part in a child's nutritional supervision and overall care, thereby affecting their nutritional status.[8] These observations underscore that a child's nutritional status is determined not just by the food available, but also significantly by their family and social circumstances.

Stunting remains a pressing public health concern in Indonesia. Findings from the 2023 Indonesian Health Survey (SKI) indicate that the national prevalence continues to be alarming. The substantial proportion of pregnant women experiencing chronic energy deficiency (CED), whose children later present with stunted growth, underscores an evident intergenerational transmission of malnutrition.[9,10] This highlights the necessity of disrupting this cycle by concentrating on the primary caregivers the parents. Although many studies have investigated specific parental factors, a thorough and unified review of the available evidence is lacking. The combined effect and interplay of different parental characteristics on stunting have yet to be systematically charted in the academic literature.

Accordingly, this scoping review seeks to collate and map the available empirical evidence concerning the influence of parental attributes on childhood stunting. The primary research question underpinning the review is: *"What parental factors are associated with the incidence of stunting in children?"* Undertaking this review is essential for highlighting existing gaps in knowledge and for informing the design of more effective family-centred interventions, particularly in settings with limited resources such as Indonesia.

METHODS

This scoping review applied the five-stage methodological framework proposed by Arksey and O'Malley, which entails clarifying the objectives, mapping the relevant body of literature, selecting eligible studies, organising the extracted data, and subsequently synthesising and presenting the results.[11] The literature search was undertaken across four electronic databases: ScienceDirect, PubMed, ProQuest, and EBSCO. In developing the search strategy, Boolean operators ("OR/AND") were combined with medical subject headings (MeSH) and a range of keywords associated with parental factors and the incidence of stunting among children under five in low- and middle-income settings.

Study selection criteria

Articles of interest focus on parental characteristics on the stunting incidence. The inclusion criteria in the selection of articles are (1) English articles, (2) Articles that discuss parental characteristics on the stunting incidence, (3) Articles published in 2015-2025, (4) Free full-text articles, (5) Research studies with qualitative and quantitative approaches. The review excluded publications categorised as opinion papers, narrative reviews, monographs, and unpublished academic works including theses and dissertations.

Search Results

From the initial search, 1,471 records were retrieved, of which 160 were deemed potentially relevant. Following the removal of 84 duplicates, 65 studies underwent title and abstract screening. Of these, 44 were excluded for not addressing parental characteristics in relation to stunting. This process left 21 full-text articles for detailed assessment. Two of these were reviews and subsequently excluded, leaving 19 studies that fulfilled the eligibility criteria, comprising one qualitative and 18 quantitative investigation.

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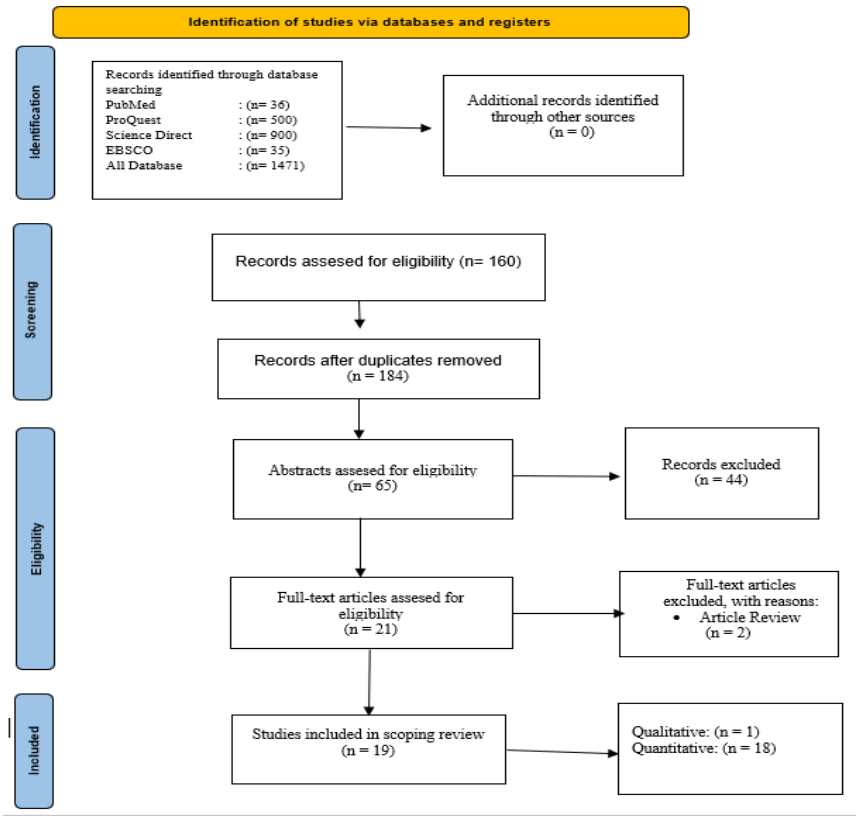


Figure 1. **Prisma *Flowchart* (flow diagram)**[12]

RESULTS

Data charting

The author maps the articles into a table which is then filtered for article information and collects all relevant articles into data charting.

Table 1. Data Charting

No	Author's / Years	Country	Objective	Methods (sample)	Type of Research	Characteristics of Parents
B1	Noor M et. al / 2022[5]	Indonesia	To analyze the characteristics of toddlers, maternal health services, and sociodemographic factors in stunting	The children aged 0-59 months totaled 1218 children with secondary analysis in this study conducted in May-August 2022	*cross-sectional*	Parental education level and exclusive breastfeeding
B2	Cetthakrikul N et. al/ 2018[13]	Thailand	To determine the causal factors of stunting in children under five	Face-to-face interviews were conducted by NSO field staff with homemakers within 60 minutes	*cross-sectional*	Economic and residential factors
B3	Nsereko E et.al / 2018[14]	Rwanda	To examine the child feeding practices associated with stunting among children under the age of two	The sample consisted of 8,605 children involved in the survey	*cross-sectional*	Breastfeeding and supplementary feeding are given to children.
B4	Yuliastini S et. al / 2020[15]	Indonesia	To identify the underlying factors linked to infant feeding practices and the occurrence of stunting	A total of 612 children, aged 6–59 months, were included in the sample	*cross-sectional*	Breastfeeding
B5	Laksono A et. al / 2022[16]	Indonesia	The study population comprised 44,071 employed mothers with children below the age of five	This study drew upon a cohort of 44,071 employed mothers with at least one child under the age of five	*cross-sectional*	Residence, age, marital status, and maternal occupation

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Table 1. Data Charting (*Continue…)*

No	Author's / Years	Country	Objective	Methods (sample)	Type of Research	Characteristics of Parents
B6	Ayelign A / 2021[17]	Ethiopia	This study aims to identify the principal determinants contributing to stunting among children in Ethiopia	This study involved children aged 0 to 59 months, with data collection taking place between January and June 2016	*cross-sectional*	Education, economy, and breastfeeding
B7	Amaha N / 2021[18]	Ethiopia	To identify maternal factors linked to the occurrence of stunting	The study population comprised women within the reproductive age range of 15 to 49 years	*cross-sectional*	Education and genetics
B8	Castro-Bedrinana J et. al / 2021[19]	Peru	To develop frameworks, interventions, and policy measures aimed at lowering the prevalence of stunting	The study involved a sample of 1,050 farming households with children under the age of five	*cross-sectional*	Maternal nutrition during pregnancy, maternal education, and breastfeeding
B9	El Kishawi R et. al / 2017[20]	Palestine	To determine the factors and prevalence of stunting in children aged 2-5 years.	The sample consisted of 357 children aged 2-5 years with mothers aged 18-50	*cross-sectional*	Marital status and genetics
B10	Chowdhury T et.al / 2022[21]	Bangladesh	This study aims to identify the determinants associated with stunting among children under five years of age in Bangladesh	The sample used is a stratified cluster sampling approach with two stages	*cross-sectional*	Age, residence, education, and economy
B11	Soekatri M et.al / 2020[22]	Indonesia	This study aims to examine the relationship between childhood stunting and factors such as morbidity, parental educational attainment, and socio-economic status	The study population comprised 7,211 participants, ranging in age from 0.5 to 12.9 years	*cross-sectional*	Maternal Education and Nutrition
B12	Wulandari R et.al / 2022[23]	Indonesia	To determine the characteristics of mothers in stunting prevention	The sample used was 11,887 toddlers	*cross-sectional*	Education, marital status, and maternal age
B13	Binagwaho A et.al / 2020[24]	Rwanda	To explore the incidence of stunting and risk factors from 2000-2015	Representatively sampled 9696, 10,272, 12,540, and 12,699 households, respectively	*cross-sectional*	Economic status, Maternal smoking habits and Household environmental conditions
B14	Santosa A et.al / 2022[25]	Indonesia	To analyze the factors that influence mothers and children on the incidence of stunting and its impact	This study involved a total of 132 children identified as stunted and an equal number of 132 children without stunting	*case-control*	Nutritional status and breastfeeding
B15	Abibatou Olakunle / 2024[26]	Sub-Saharan African	To analyze the significant changes in child stunting and identify the factors that contributed to its reduction in these countries	This study draws on Demographic and Health Survey (DHS) data from twelve countries. To disentangle variations in stunting, the Recentered Influence Function (RIF) decomposition technique was applied, enabling the estimation of the relative contribution of each determinant	*cross-sectional*	Average educational level of mothers and fathers

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Table 1. Data Charting (*Continue…)*

No	Author's / Years	Country	Objective	Methods (sample)	Type of Research	Characteristics of Parents
B16	Pratama Y et.al / 2021[27]	Indonesia	To explore the incidence of stunting among maternal and child height aged 0-59 months	The sample size used was 690 under-fives.	*case-control*	Maternal nutritional status (height)
B17	Yudhistira Andarusukma et.al / 2025[28]	Indonesia	To investigate how maternal characteristics and previous birth experiences contribute to stunting among children under five years of age	This study utilised secondary data derived from the Indonesia Family Life Survey (IFLS), encompassing a cohort of 14,846 children younger than five years	*cross-sectional*	Postpartum maternal depression and Unintended pregnancy
B18	Damanik S et.al / 2020[29]	Indonesia	To examine the relationship between infant feeding patterns and the occurrence of stunting	Mothers who have toddlers who lead to stunting at the age of 12-36 months	*Qualitatif*	Supplementary feeding
B19	Nkurunziza S et.al / 2017[30]	Burundi	To assess the occurrence of severe stunting in infants and toddlers under the age of two	The study population comprised children between 6 and 23 months of age who were accompanied by their mothers for the survey	*Randomized Controlled Trial*	Education level, knowledge, and nutritional status

Quality Appraisal

The authors used the *Joanna Briggs Institute* (JBI) tool to assess article quality. Based on the assessment of 19 , cross-sectional (n=15) consisted of eight questions with an overall appraisal assessment of include. Case-control (n=2) consisted of 10 questions with an overall appraisal assessment of include. While randomized controlled trial (RCT) and Qualitative, each article (n=1) with an overall appraisal assessment is included.

DISCUSSION

A synthesis of the literature highlights parental education as one of the most influential sociodemographic determinants of stunting. Both maternal and paternal education exert direct and indirect effects on a child's nutritional status. Parents with higher levels of education generally demonstrate greater nutritional knowledge, adopt more appropriate childcare practices, and have broader access to health information. This advantage also influences the quality of the household environment, particularly in terms of sanitation and access to safe water, thereby lowering the risk of recurrent infections that significantly contribute to stunting.[5,18,22]

In addition to education, socioeconomic status and place of residence constitute important determinants. Empirical evidence indicates that families with low income or those residing in rural settings face a higher risk of stunting.[13,16] Disparities in infrastructure, healthcare services, and the availability of nutritious food between urban and rural areas directly affect parents' capacity to fulfil their children's nutritional needs. The high cost of nutrient-dense foods further exacerbates the situation, limiting poor households' ability to provide sufficient protein intake, which in turn results in chronic malnutrition.[19]

Parental influences encompass both biological and psychosocial dimensions that are strongly associated with childhood stunting. Factors such as maternal age and marital status have been shown to contribute, with early marriage or unintended pregnancies frequently indicating inadequate psychological readiness and financial stability.[21,31] The mother's nutritional condition before and throughout gestation, particularly her stature and body mass index, serves as a significant determinant of stunting risk. Chronically undernourished women are more likely to give birth to low-birth-weight infants, a group highly susceptible to restricted growth trajectories.[15,20] Furthermore, existing literature points to the influence of hereditary factors and maternal smoking behaviours, both of which may exacerbate adverse nutritional outcomes in children.[24]

In the domain of childcare, and more specifically feeding practices, these act as a pivotal mediator between household resource availability and the child's nutritional status. Ensuring exclusive breastfeeding during the first six months of life, followed by the timely provision of complementary foods that are both nutritionally adequate and contextually appropriate, is instrumental in lowering the risk of stunting.[25] Conversely, reliance on

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commercially manufactured complementary foods, often deficient in protein and limited in dietary diversity, substantially increases the probability of growth faltering.[29] Moreover, maternal psychological well-being, including conditions such as postnatal depression, plays a critical role in shaping both the motivation and capacity to breastfeed and to provide consistent care, thereby exerting an indirect yet significant influence on the child's growth trajectory.[31]

Study Limitation

A key limitation identified in this review is that most of the included studies employed cross-sectional designs, which restrict the ability to establish causal relationships. Future research should therefore consider adopting longitudinal or cohort approaches to better elucidate the temporal dynamics between parental factors and stunting outcomes. Additionally, subsequent investigations may profit from incorporating the role of paternal involvement in childcare and exploring household decision-making processes that influence children's nutritional well-being.

CONCLUSION

This review consolidates evidence demonstrating that stunting among children under five is shaped by a complex interplay of parental characteristics. Core determinants include sociodemographic conditions, maternal nutritional status, and caregiving practices, particularly within low- and middle-income settings. These insights carry important implications for public health policy. Efforts to prevent stunting should extend beyond child nutrition alone and adopt a holistic strategy centred on parental empowerment. Such interventions may include strengthening nutritional education and literacy, improving the nutritional status of adolescent girls, and delivering targeted social and economic support to vulnerable families. Programmes that promote appropriate caregiving practices and address maternal mental health are likewise essential to mitigating the intergenerational cycle of undernutrition.

REFERENCES

1. World Health Organization (WHO). Global nutrition monitoring framework: operational guidance for tracking progress in meeting targets for 2025. 2017.https://www.who.int/publications/i/item/9789241513609.
2. World Health Organization UNCF (UNICEF) & WBG. Levels and trends in child malnutrition: UNICEF/WHO/World Bank Group joint child malnutrition estimates: key findings of the 2025 edition. 2025.https://www.who.int/publications/i/item/9789240112308.
3. World Health Organization (WHO). World health statistics 2024: monitoring health for the SDGs, sustainable development goals. 2024.https://www.who.int/publications/i/item/9789240094703.
4. Atamou L, Rahmadiyah DC, Hassan H, Setiawan A. Analysis of the Determinants of Stunting among Children Aged below Five Years in Stunting Locus Villages in Indonesia. *Healthc* 2023; **11**. doi:10.3390/healthcare11060810.
5. Noor MS, Andrestian MD, Dina RA, Ferdina AR, Dewi Z, Hariati NW *et al.* Analysis of Socioeconomic, Utilization of Maternal Health Services, and Toddler's Characteristics as Stunting Risk Factors. *Nutrients* 2022; 14. doi:10.3390/nu14204373.
6. Rofiqoh S, Rizkian H, Vandawi N, Lianasari F. Characteristics of mothers and stunting toddlers in Pekuncen Village, Wiradesa, Pekalongan, Indonesia. 2020.
7. Azzahra I, Listyaningsih U, Rara R, Puji W. Unveiling the dynamics of stunting : a qualitative exploration of parenting patterns and toddlers aged 6 – 59 months in Bejiharjo , Indonesia. 2024; **30**: 266–276.
8. Masrul. Characteristics Of Stunting Children With Background History Of Family Demography And Maternal Reproductive In Pasaman And Pasaman Barat District, West Sumatera. 2018http://jom.
9. Kementerian kesehatan. Menentukan Prioritas Intervensi PencegahanStunting. 2024.https://simplek.bkpk.kemkes.go.id/storage/repositories/Menentukan Prioritas Intervensi Pencegahan Stunting.pdf?utm_source=chatgpt.com.
10. Baiq Alawiah S, Utary D, Mahdaniyati A, Kedokteran F, Islam U. Hubungan riwayat ibu hamil kekurangan energi kronik (kek) dengan derajat stunting pada anak di desa mekar sari lombok timur. 2023; **2**: 62–66.
11. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol* 2005; **8**: 19–32.
12. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D *et al.* PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med* 2018; **169**: 467–473.
13. Cetthakrikul N, Topothai C, Suphanchaimat R, Tisayaticom K, Limwattananon S, Tangcharoensathien V. Childhood stunting in

Copyright © 2026 by the Authors, Published by Department of Nutrition Science, Faculty of Medicine, Universitas Diponegoro, Journal of Nutrition College Volume 15 (3), P-ISSN: 2337-6236; E-ISSN: 2622-884X
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Thailand: When prolonged breastfeeding interacts with household poverty. *BMC Pediatr* 2018; **18**. doi:10.1186/s12887-018-1375-5.
14. Nsereko E, Mukabutera A, Iyakaremye D, Umwungerimwiza YD, Mbarushimana V, Nzayirambaho M. Early feeding practices and stunting in Rwandan children: A cross-sectional study from the 2010 Rwanda demographic and health survey. *Pan Afr Med J* 2018; **29**. doi:10.11604/pamj.2018.29.157.10151.
15. Yuliastini S, Sudiarti T, Sartika RAD. Factors related to stunting among children age 6-59 months in babakan madang sub-district, West Java, Indonesia. *Curr Res Nutr Food Sci* 2020; **8**: 454–461.
16. Laksono AD, Sukoco NEW, Rachmawati T, Wulandari RD. Factors Related to Stunting Incidence in Toddlers with Working Mothers in Indonesia. *Int J Environ Res Public Health* 2022; **19**. doi:10.3390/ijerph191710654.
17. Ayelign A, Zerfu T. Household, dietary and healthcare factors predicting childhood stunting in Ethiopia. *Heliyon* 2021; **7**. doi:10.1016/j.heliyon.2021.e06733.
18. Amaha ND, Woldeamanuel BT. Maternal factors associated with moderate and severe stunting in Ethiopian children: analysis of some environmental factors based on 2016 demographic health survey. *Nutr J* 2021; **20**. doi:10.1186/s12937-021-00677-6.
19. Castro-Bedriñana J, Chirinos-Peinado D, De La Cruz-Calderón G. Predictive model of stunting in the Central Andean region of Peru based on socioeconomic and agri-food determinants. *Public Heal Pract* 2021; **2**. doi:10.1016/j.puhip.2021.100112.
20. El Kishawi RR, Soo KL, Abed YA, Muda WAMW. Prevalence and associated factors influencing stunting in children aged 2-5years in the Gaza Strip-Palestine: A cross-sectional study. *BMC Pediatr* 2017; **17**. doi:10.1186/s12887-017-0957-y.
21. Chowdhury TR, Chakrabarty S, Rakib M, Winn S, Bennie J. Risk factors for child stunting in Bangladesh: an analysis using MICS 2019 data. *Arch Public Heal* 2022; **80**. doi:10.1186/s13690-022-00870-x.
22. Soekatri MYE, Sandjaja S, Syauqy A. Stunting was associated with reported morbidity, parental education and socioeconomic status in 0.5–12-year-old Indonesian children. *Int J Environ Res Public Health* 2020; **17**: 1–9.
23. Wulandari RD, Laksono AD, Kusrini I, Tahangnacca M. The Targets for Stunting Prevention Policies in Papua, Indonesia: What Mothers' Characteristics Matter? *Nutrients* 2022; **14**. doi:10.3390/nu14030549.
24. Binagwaho A, Rukundo A, Powers S, Donahoe KB, Agbonyitor M, Ngabo F *et al.* Trends in burden and risk factors associated with childhood stunting in Rwanda from 2000 to 2015: Policy and program implications. *BMC Public Health* 2020; **20**. doi:10.1186/s12889-020-8164-4.
25. Santosa A, Arif EN, Ghoni DA. Effect of maternal and child factors on stunting: partial least squares structural equation modeling. *Clin Exp Pediatr* 2022; **65**: 90–97.
26. Olakunle AA. Analysing the drivers of stunting reduction in twelve sub-saharan African countries using the RIF decomposition approach. 2024.
27. Pratama YY, Marwati TA, Hidayat MS. Factors related to stunting incidence in children under-five years in argodadi, sedayu, bantul. *Epidemiol Soc Heal Rev* 2021; **3**: 17–22.
28. Andarusukma Y, Adiba R, Galuh M, Sari K. Exploring the influence of maternal and birth history on stunting in children under 5 years in Indonesia: evidence from the Indonesia Family Life Survey. 2025; **65**: 207–215.
29. Damanik SM, Wanda D, Hayati H. Feeding practices for toddlers with stunting in Jakarta: A case study. *Pediatr Rep* 2020; **12**. doi:10.4081/pr.2020.8695.
30. Nkurunziza S, Meessen B, Van geertruyden JP, Korachais C. Determinants of stunting and severe stunting among Burundian children aged 6-23 months: Evidence from a national cross-sectional household survey, 2014. *BMC Pediatr* 2017; **17**. doi:10.1186/s12887-017-0929-2.
31. Upadhyay AK, Srivastava S. Effect of pregnancy intention, postnatal depressive symptoms and social support on early childhood stunting: Findings from India. *BMC Pregnancy Childbirth* 2016; **16**. doi:10.1186/s12884-016-0909-9.

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