The Role of Parents to Prevent Stunting in Toddlers: Scoping Review

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ABSTRACT

Background: Stunting is a condition that cannot achieve normal weight and height in toddlers because of severe undernourishment, particularly during the first thousand days of life (golden period). Toddlers with stunting look smaller compared to their age. The stunting prevalence in 2021 was 24.4% decreased to 21.6% in 2022. The government targeted a decrease in stunting in Indonesia by 14%, which means that the incidence of stunting must decrease by 3.8% for two consecutive years. Objective: To review the role of parents in preventing stunting in toddlers. Method: This scoping review used a PRISMA-Scr framework by tracking articles using pertinent databases such as Pubmed, Scient Direct, and Willey and The Joanna Briggs Institute (JBI) for critical appraisal. Results: Based on the research results from 1,596 articles that had been filtered, ten articles that met the criteria for inclusion and exclusion were found. In this study, two main themes were found, namely factors that influence stunting and toddler parenting. Conclusion: The role of parents is very influential on the growth and development of toddlers whose parents’ role in the selection of food given to children, exclusive breastfeeding, the practice of food provision, diversity of food provided to children, clean living behavior by parents in the family. The outcome is expected to increase the degree of nutrition in toddlers as an effort to avoid stunting.

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Kata kunci:
Orang Tua
Pencegahan
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Balita

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ABSTRAK

pemilihan makanan yang di berikan untuk anak, ASI eksklusif, praktik pemberian makanan, keragaman makanan yang diberikan pada anak, perilaku hidup bersih yang dilakukan orang tua di dalam keluarga yang outcome nya di harapkan dapat meningkatkan derajat nutrisi pada balita sebagai usaha menghindari terjadinya stunting.

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INTRODUCTION

Stunting is when a child cannot acquire normal weight and height due to severe undernourishment, particularly during the first thousand days of life (the golden period). Stunting toddlers appear smaller than their peers (Sutrisno, 2020). WHO states that the worldwide stunting prevalence was 22% or as many as 149.2 million in 2020 (WHO, 2021). Results of the Indonesian Nutritional Status Survey (SGSI, 2022) showed that stunting prevalence dropped from 24.4% in 2021 to 21.6% in 2022. The government is targeting a stunting rate reduction in Indonesia by 14% in 2024, which means that the incidence of stunting must decrease by 3.8% over two years.

A review conducted by (Deby Riyanti et al., 2022) entitled parenting strategies in preventing stunting in toddlers, the results showed that the role of the father in nurturing, educating, supervising, and disciplining, the mother’s knowledge and attitude in preventing stunting is an endeavour to avoid childhood stunting. In this review, the researchers emphasize the parental role in preventing stunting in toddlers, which includes food selection, exclusive breastfeeding, practices in feeding children, the diversity of foods given to toddlers, and clean and healthy living behaviours that parents apply to their children. This scoping review aimed to review the role of caregivers (parents) in preventing stunting in toddlers. This review used the PEOS framework, namely.

This review uses the PEOS framework, which consists of P (Population), namely parents who have toddlers, E (Exposure), namely stunting prevention, O (Outcome), namely toddlers with normal growth and development/not stunting, and S (Study Design) is all studies/research designs are related to the parent’s role in preventing stunting in toddlers.

Based on PEOS framework above, the researcher’s question is “What is the parent’s role in preventing stunting in toddlers?”

METHODS

This scoping review used the PRISMA-ScR protocol (10) with the Population, Exposure, Outcome and Study Design (PEOS) framework (10). The population was which consists. Involving articles related to preventing stunting prevention. It used complete original research article related to effort to prevent stunting in developing countries.

Eligibility criteria

Articles were found using the inclusion criteria; they were original research publications, articles in Indonesian and English released between 2019 and 2023, and articles pertinent to preventing stunting by parents— and the exclusion criteria were opinion articles and publications.

Information source

Pubmed, Science Direct, and Wiley Online Library are the databases used in this article’s search for relevant articles.

Search Strategy

The reviewer employed the PRISMA-ScR checklist procedure, an expansion of the scoping reviews checklist that included 22 measurement items, 20 meaningful publicity items, and two alternative items for composing scoping reviews (Tricco et al., 2018). The article search was conducted using the keywords (Father* OR Mother* OR Parents*) AND (Prevention* OR Precaution*) AND (Stunting* OR Stunted* OR Stunts*) in three databases: Pubmed, Science Direct, and Wiley Online Library.

Selection process

This literature employed a scoping review, a structured approach that may be used to determine the methodology’s scope, define findings based on evidence, and characterize the concepts underpinning the study field, evidence sources, and various forms of accessible evidence. (Tricco et al., 2018).

Data Collection Process and Data Items

The article search approach in the three databases turned up 1,596 articles. After the screening, 272 duplicate articles were found; these were removed, and up to 1,340 were acquired. 52 articles are missing because many are filtered or rejected because they are not in English, are reviews that do not follow the title, or are older than five years old. All remaining articles are accessed in accordance with relevance and are written in English, along with original articles and critical evaluation. There will be a search of ten pertinent articles for data extraction analysis on charting data. The extracted findings are then evaluated using “Critical Appraisal.”

Synthesis Methods

Reviewers utilized Zotero as a Reference Management Software that aided in article selection via Duplicate Check, Title Selection, Abstract and Execute full text-point. Preferred Reporting Elements Flowcharts for Systematic Reviews and Meta-Analyses (Prism) depict the number of identified publications and the procedures used to filter them (Tricco et al., 2018).
**RESULTS**

<table>
<thead>
<tr>
<th>No</th>
<th>Title/Author/Year</th>
<th>Country</th>
<th>Purpose</th>
<th>Research Design</th>
<th>Data collection</th>
<th>Participants/Sample Size</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>“When I Breastfeed, It Feels as if my Soul Leaves the Body”: Maternal Capabilities for Healthy Child Growth in Rural Southeastern Tanzania (McHome et al., 2020)</td>
<td>Tanzania</td>
<td>To identify the mother’s ability to ensure the healthy growth of the child</td>
<td>Qualitative with ethnographic methods</td>
<td>In-depth interviews that took 3 months were used to collect data.</td>
<td>The sample was 30 informants and 5 key informants to mothers and fathers of toddlers under five years of age using purposive sampling.</td>
<td>According to this study’s findings, three abilities of mothers emerge from the analysis of caregiver narratives about the growth and development of healthy children: (1) can feed their children, (2) monitor and decide on agricultural products and income, and (3) ensuring access to medical treatments.</td>
</tr>
<tr>
<td>2.</td>
<td>The Targets for Stunting Prevention Policies in Papua, Indonesia: What Mothers’ Characteristics Matter? (Wulandari et al., 2022)</td>
<td>Indonesia</td>
<td>To analyze the characteristic s of mothers most appropriate for stunting prevention policies.</td>
<td>Quantitative with a cross-sectional method</td>
<td>Nutritional Status Monitoring Survey of Indonesia, 2017</td>
<td>This study’s sample consisted of 11,887 infants under five (60 months) selected via random cluster sampling with multiple stages.</td>
<td>The study’s results explained that marital status was 0.936 times lower, experiencing stunting because it correlated to the husbands’ and fathers’ roles. The mother receives emotional support from the husband during the pregnancy and the child’s development. Parents’ responsibilities give children security, comfort, love, and serenity, which influences their development by increasing nutritional needs, adopting a healthy way of living, and developing a great family life to hinder stunting.</td>
</tr>
<tr>
<td>3.</td>
<td>Fathers And Grandmother’s Experiences Participating In Nutrition Peer Dialogue Groups In Vihiga County, Kenya (Thuita et al., 2021)</td>
<td>Kenya</td>
<td>To explore grandmother's and fathers' experiences participating in interventions and how they influence care and feeding practices.</td>
<td>Qualitative on grandmothers and fathers who have participated in an experiment.</td>
<td>The data collection method in this study used interviews and FGD guidelines.</td>
<td>The sample in this study were fathers and grandmothers divided into 8 dialogue groups consisting of 9-11 people and 10 dialogue groups of grandmothers consisting of 7-11 people using purposive sampling.</td>
<td>The results showed that Some grandmothers were crucial in providing children with a greater range of foods, like more fruit, and others highlighted improvements when preparing meals, like adding seasoning or ingredients to porridge or thickening porridge. Father states they are feeding the infant while the mother is away. While the mother is away, a grandma and some fathers provide extracted breast milk.</td>
</tr>
</tbody>
</table>

To assess the effectiveness of women’s personalized home nutritional counselling during pregnancy and its impact on newborn feeding patterns, morbidity, and nutritional outcomes within the first year of life.

The data collection method in this study used 8 trained interviewers during 7 counselling sessions during pregnancy and counselling every week after birth. 529 mother-child couples exposed to NEC and 581 control (unexposed) groups were the study’s samples. Both groups were available at birth for follow-up with their kids every three months till 13th month postpartum and at the 35th month using cluster randomized controlled trial a sampling technique.

The findings revealed that during the post-infant period (18 months follow-up), the proportion of mothers in the intervention group who support their kids actively to finish eating was greater than in the control group (58.0% v. 42%). Through the third follow-up, a significantly larger proportion of women in the control group (61.1% vs 56.2%) discontinued feeding their infant when their child refused to eat; a similar tendency was found post-infancy, with 55.5% of mothers in the control group vs 46.7%. Significantly more mothers in the intervention group disinfected the equipment used to feed their infants than in the control group (56.8% versus 32.2%).

5. Maternal nutrition counselling is associated with reduced stunting prevalence and improved feeding practices in early childhood: a post-program comparison study (Mistry et al., 2019)

To evaluate the intervention’s influence on children under five’s stunting prevalence and feeding patterns.

The data collection utilized a previously tested structured questionnaire. In-person interviews with mothers were used to collect data on homes, mothers, and kids, while standard anthropometric techniques were used to measure the kids. The study sample was 3009 mother-child pairs; 1452 samples were from the control area and 1557 from the intervention area using systematic random sampling. The findings demonstrated that although 13.3% of mothers in the control area fed their infants pre-lacteally, the practice of the mother’s role in child feeding continued after the intervention; in the past 24 hours before the survey, 72.7% of mothers exclusively breastfed infants less than 6 months in the intervention area as opposed to 59.4% in the control area (P = 0.008). This difference was statistically significant. The practice of starting supplemental feeding at 7 months for women with children aged 6-23 months was nearly identical in both regions (69.1 and 70.1%, P = 0.700, respectively); In response to a regional intervention, the children’s diets were substantially more diverse. (42.9% vs 34.1%, P = 0.001).

6. “We struggle with the earth everyday”: parents’ perspectives on the capabilities for Bangladesh (Mistry et al., 2019)

To identify the parental and child abilities that influence multidimensional child

We utilised an interview guide that was filled with open-ended questions to collect data for this study to form FGD and IDI.

The samples in this study were 4 fathers and 4 mothers with a purposive sampling technique. The research results stated that mothers feed children fruits, so they will grow quickly, mothers provide breast milk and rice. Mothers who maintain good health are more likely to have the stamina required to care for the rest of the family as well as breastfeed their infants and prepare other foods for them.
<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Objective</th>
<th>Design</th>
<th>Sampling Method</th>
<th>Sample Size</th>
<th>Results/Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy child growth in Haor region of Bangladesh</td>
<td></td>
<td></td>
<td>Quantitative</td>
<td>Face-to-face interviews.</td>
<td>7,348</td>
<td>The study's findings suggested that women can increase their independence and enhance child nutrition through their aspirations related to the well-being and prosperity of their households and communities as they pursue gainful employment.</td>
</tr>
<tr>
<td>Higher maternal autonomy is associated with reduced child stunting in Malawi</td>
<td>Malawi</td>
<td>To assess the relationship between maternal independence and under-five child stunting in Malawi</td>
<td>Cross-sectional method using MDHS data</td>
<td>300 respondents taken by questionnaire.</td>
<td>7,348</td>
<td>The prevalence of stunting in Bugis children is 22.7%, and in normal toddlers is 77.3% with p = 0.005 and there are four feeding styles: caring (indulgent), compromise (authoritarian), free (not involved), and absolutely governing (authoritarian).</td>
</tr>
<tr>
<td>Feeding Style for Children Aged 0-59 Months of Buginese Ethnicity</td>
<td>Indonesia</td>
<td>To find out the diet of the Bugis tribe</td>
<td>Quantitative with Cross-sectional method</td>
<td>Simple random sampling</td>
<td>120</td>
<td>The results indicated that culture, family support, and awareness are all elements that influence children under the age of five in terms of meeting their nutritional needs.</td>
</tr>
</tbody>
</table>

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1. Chakraborty et al., 2020
2. Chilinda et al., 2021
3. Hartono et al., 2020
4. Wiliyanarti et al., 2022

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1,596 articles were found through the article search method in the three databases. After being filtered, 272 duplicate articles were obtained, and as many as 1,340 were obtained. From the number of articles, many articles were filtered or issued because they were not written in English, there are articles in the form of reviews that did not in accordance with the title, or articles that are less than the last five years so that the number is to lack 52 articles and articles are accessed accordingly relevance and in English, as well as original articles and critical appraisal. Characteristics of the article based on the country cover [1] articles from Tanzania, [4] articles from Indonesia, [2] articles from Kenya, [2] articles from Bangladesh, and [1] articles from Malawi. In terms of research design [3] qualitative research articles and [6] quantitative research articles with a cross-sectional design, and [1] quantitative research articles with cohort designs. The ten articles are classified into two, namely the characteristics of the state articles and the characteristics of articles based on their research design.

**DISCUSSION**

The selection of food in toddlers is something that makes a hard choice for a mother. The selection of toddlers’ food must be comparable to the daily vitality needs (Silmina & Hardiani, 2022). Mothers’ ability to feed and assure their kids’ accessibility to medical care is correlated with fathers’ capacity to support the family as the household head and the breadwinner, allowing the mother to buy nourishing food for her children or accompany (McHome et al., 2020). In the direction of research by (Richards et al., 2019), the family’s financial resources are more under the authority of the women, and a larger amount of the family’s increased income is dedicated to meeting the children’s fundamental requirements.

The infant’s first six months must be exclusively breastfed. Early breastfeeding initiation motivates mothers to breastfeed exclusively for longer periods. Infants should be exclusively breastfed for six months for best growth and development (Mistry et al., 2019). Fathers or grandmothers can breastfeed their children by feeding them extracted breast milk when the mother is away or doing work so that the child continues to get breast milk for six months, which can prevent the child from getting sick (Thuita et al., 2021). In addition, mothers do not go on a diet because it can cause disruptions in milk production so that the child can get enough breast milk to keep the baby healthy (Chakraborty et
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ETHICAL CONSIDERATIONS

Funding Statement.

Researchers did not obtain capitalization or contribution from other institutions in the construction of this review, without any capitalization in article planning and during this review.

Conflict of Interest Statement

There were no conflicts of interest existed in this review.

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al., 2020). It is consistent with study by (Setyowati et al., 2022), who stated that due to breast milk includes healthy micro and macronutrients, including colostrum, which is important for boosting resistance in newborns, breastfeeding exclusively from the beginning can prevent or minimize stunting incidence in toddlers.

Recommendations for feeding babies and children include a minimum duration of sustainable breastfeeding, minimum diversity of food, and minimum acceptable food. Giving children the freedom to choose the foods they will eat, allowing them to eat anything they want while eating, letting them experiment with new foods, providing them with other foods when they get bored with the usual food, and eating the same kinds of side dishes as the family are all examples of feeding practices. (Hartono et al., 2020). Furthermore, efforts to improve optimal child-feeding practices can improve children’s nutritional status. Feeding practices can be achieved with high maternal knowledge regarding child feeding practices (Mistry et al., 2019). It aligns with research by (IcKes, et al., 2020), who revealed that mothers’ counselling about child feeding effectively improves child-feeding practices by increasing mothers’ knowledge about child feeding.

The diversity of foods can improve the diet quality and the achievement of good Nutrition Adequacy Rates (RDA) in children (Thobias&Djokosujono, 2021). Children’s appetites can be influenced by efforts to meet their nutritional needs; for instance, by eating vitamin-rich meals like fish, vegetables, fruits, and ice (Chakraborty et al., 2020). Meats derived from both plant and animal sources of protein are linked to the prevention of stunting because food obtained from flora is a source of protein that is quickly decomposed and has a higher level of body absorption. And so, the stable protein content derived from animals is relevant for ideal physical expansion (Eshete Tadesse et al., 2020).

Cleanliness can raise the level of living in a community by enhancing the condition of the dwelling, and stunting can be reduced by improving environmental cleanliness and sanitation (Wulanardi et al., 2022). Improvements in food safety, hand washing, and clean water are also one of the efforts to prevent stunting in toddlers (Thuita et al., 2021). Besides that, parents also disinfect equipment used to feed children (Nyamasege et al., 2021).

LIMITATIONS OF THE STUDY

An incomplete review was discovered during this scoping review. Some articles did not describe aspects of confounding and control of confounding aspects, and critical assessments carried out by two or more independent reviewers were not explained.

CONCLUSIONS AND SUGGESTIONS

The role of parents is very influential in the growth and development of toddlers. Their role is food selection, exclusive breastfeeding, feeding practices, various food items for children, and clean living behaviour applied by parents in the family is an effort for parents, which the expected outcomes are to increase toddlers’ nutritional status to prevent stunting in toddlers.


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