The effectiveness of women empowerment in preventing stunting in children aged 6-59 months

Didik Iman Margatot1, Titih Huriah2*

ABSTRACT

Background: Stunting is a major global nutritional issue with a high prevalence. The high rate of stunting is influenced by several factors, including teenage pregnancy, malnutrition in women during pre-conception, pregnancy breastfeeding, and a woman's level of knowledge. There is a specific and sensitive nutrition program in Indonesia to prevent stunting in children. Women empowerment is one of the prevention interventions in the sensitive nutrition program. The purpose of this paper is to review the literature related to women's empowerment in preventing stunting in children aged 6-59 months.

Methods: Search relevant literature using PubMed and ProQuest databases using the keywords Stunting OR Growth disorder OR Under-five years AND women's empowerment AND mother empowerment. The writer uses a logic grid method with the PICO approach to determine keywords. The inclusion criteria in taking articles that will be reviewed in this paper are articles related to women's empowerment in preventing stunting in children aged 6-59 months. Articles published in the period 2015-2020 and articles in English.

Results: 705 articles were found in the search using the PubMed and ProQuest databases. Four articles met the author's review's inclusion criteria. The four articles reviewed found that women's empowerment in education and knowledge significantly affected stunting prevention. A woman with high education will be more knowledgeable about healthcare in children, and good nutrition can prevent stunting in children. Another article states that empowering women in terms of decision-making does not have a significant effect in preventing stunting.

Conclusion: The review concludes that women's empowerment has a significant impact on preventing stunting. Women can be empowered by increasing knowledge about providing good nutrition to children aged 6-59 months.

Keywords: Growth disorder, mother empowerment, stunting, under-five years, women's empowerment.

INTRODUCTION

Stunting is a major global nutritional problem, with the incidence rate reaching 22.9%.1 The highest incidence of stunting occurs in Africa and Asia. The East African region has a 37% incidence of stunting in children aged <5 years.2 As many as 8.4% of stunting problems occurred in Malaysia and Thailand, then 15% occurred in Vietnam. Indonesia currently also has a fairly high incidence of stunting at 37.2%.3

The high stunting rate is influenced by several factors, including household environmental factors such as access to water and sanitation.4 Other risk factors that can also affect the incidence of stunting include pregnancy in adolescence, malnutrition in women during pre-conception, pregnancy, and breastfeeding.5 Other research also states that exclusive breastfeeding, a mother's height <150 cm, a mother's age, and a woman's level of knowledge are risk factors for stunting.6

To reduce these risk factors, the Indonesian government has implemented several intervention programs in preventing stunting, including sensitive nutrition interventions and specific nutrition interventions.7 Specific nutrition intervention programs include diet or micronutrient supplementation, health and nutrition during adolescence, pre-conception, pregnancy, and breastfeeding. Meanwhile, empowering women is one of the interventions in sensitive nutrition programs.8

Women's empowerment is the process of increasing the capacity of individuals or groups of women to make decisions, act on those decisions, and achieve the desired outcomes. The absence of violence, social independence, economic decision-making in the household, and obtaining health were all components of women's empowerment.9 Women's empowerment is very influential in preventing stunting because women are the primary caregivers in the household and can help fulfill children's nutritional needs.10

Women's empowerment in Indonesia is accomplished through the Mother Smart Grounding Program. Interventions carried out in this program include educating mothers about nutrition in toddlers to prevent stunting at an early age. This program was effective at lowering the prevalence of stunting.11

Based on the explanation of several studies above, the authors are interested in conducting a review on the effectiveness of women's empowerment in preventing stunting in children aged 6-59 months. In particular, this paper aims to analyze research that focuses on the effectiveness
of women's empowerment in preventing stunting.

METHODS

The method used in this paper is by using a scoping review where the main focus in this paper is to provide a general description of the evidence of research that has been conducted on the effectiveness of women's empowerment in preventing stunting in children aged 6-59 months. In optimizing the interpretation of the review, the author first clarifies each article that will be reviewed using systematic steps.

The author determines a research topic, research objectives and develops research questions before conducting search activities. The next step was to determine the keywords for the journal review. The author uses a logic grid method with the PICO approach to search for suitable keywords.

ProQuest and PubMed were used to search relevant literature. The keywords used in the literature search were “Stunting” OR “Growth Disorder” OR “Under-five years” AND “women’s empowerment” OR “Mother empowerment.” The inclusion criteria for this writing review are journals that use English and conduct cross-sectional research published between 2015 and 2020. After locating the appropriate journal, the author analyzed the title and abstract to determine which journals met the inclusion criteria. The author then reads the entire journal for a review analysis.

RESULT

The search yielded 705 articles from two databases, including 364 from PubMed and 341 from ProQuest. Based on the results, there were 690 irrelevant articles based on title and only four articles that met the inclusion criteria. The majority of the four articles discussed the importance of empowering women to reduce the prevalence of stunting. The articles were Shafiq et al.10, Siddhanta & Chattopadhyay12, Kamiya et al.13, and Abreha et al.14. Each article originated in Bangladesh, Pakistan, Ethiopia, or Laos. Articles that met the inclusion criteria were all written in English.

According to four articles reviewed by the author, one factor influencing stunting prevention is the mother’s level of knowledge. Women’s knowledge is the most crucial factor in empowering women to prevent stunting, whereas stunting is reduced by 30% when women’s education levels rise. Women’s education has an independent, strong, and positive impact on child survival and stunting reduction. Increasing the knowledge of women can be achieved through education on the provision of nutritious food for children, nutrition education during pregnancy, and literacy education programs for women who cannot read or write, all of which can play a crucial role in improving children’s nutritional status.15 Similarly, the improvement of women’s empowerment in the household results from their socioeconomic status.14 A knowledgeable woman has a low risk of developing stunting in children under five.13

Another article stated mother’s decision-making was not significantly associated with childhood stunting. Because, in decision-making in a household, the husband must also involve women’s decision-making. Decision-making in terms of health and family economic arrangements can be done together.14 According to the findings of Kamiya et al. (2018), mothers without stunted children were more likely to make

![Figure 1. Prisma Literature Review.](image-url)
<table>
<thead>
<tr>
<th>No</th>
<th>Research Year</th>
<th>Title</th>
<th>Purpose</th>
<th>Research design, population and instrument</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Siddhanta, 2017</td>
<td>Role Of Women's Empowerment in Determining Child Stunting In Eastern India dan Bangladesh</td>
<td>To examine the relationship between women's empowerment and children's nutritional status, as well as to examine the role of women's empowerment in determining to stunt in children in East India and Bangladesh</td>
<td>Research Design: Survey Methods  The population and sample in this study were children aged 0-59 months in India and Bangladesh  Instrument: Questionnaire with indicators of women's empowerment</td>
<td>Empowering women has a significant effect in preventing stunting. This study found that the higher a woman's level of knowledge, the possibility of reducing the incidence of stunting by 30% (p &lt;0.01). In addition, women's decision-making in terms of health education can affect the early prevention of stunting (p &lt;0.05).</td>
</tr>
<tr>
<td>2</td>
<td>Shafiq et al., 2019</td>
<td>The Effect of “Women’s Empowerment” on Child Nutritional Status in Pakistan</td>
<td>To investigate the effects of women’s empowerment on the nutritional status of children in Pakistan</td>
<td>Research Design: Cross-sectional survey  The population in the study were all mothers and children in Pakistan  Instruments: PDHS (Pakistan Demographic Health Survey) and questionnaire with indicators of women’s empowerment in decision making and CIAF (Composite Index Anthropometric Failure)</td>
<td>Pseudo R2 and log pseudo-likelihood were used to measure the overall effect of CIAF on female determinants.  Empowerment of women with a pseudo R2 value (0.0645) and a log pseudo probability (-1964.8684) shows that the model is significant. The probability value of each variable indicates that the mother’s education at the middle and upper levels, household size, and the wealth index for the upper-middle class is significant at the 5% level (p &lt;0.05). Meanwhile, the mother’s job and decision-making about the husband’s health showed significance at the level of 10% (p &lt;0.10).</td>
</tr>
<tr>
<td>3</td>
<td>Abreha et al., 2020</td>
<td>Associations between women’s empowerment and children’s health status in Ethiopia</td>
<td>To measure the extent of women’s empowerment and examine its relationship to the health status of children in Ethiopia.</td>
<td>Research Design: Cross-sectional  Population: 10,641 women from 15 to 49 years and their children under five years of age  This research instrument uses a questionnaire</td>
<td>Women empowerment in household improvement in terms of their socioeconomic status (i.e., increasing women’s access to education, information, media, and promoting savings) is less likely for children to be stunting -0.78 (p &lt;0.05). However, empowering women in decision making does not have a significant effect on stunting children</td>
</tr>
<tr>
<td>4</td>
<td>Kamiya et al., 2018</td>
<td>Mother’s autonomy and childhood stunting: evidence from semi-urban communities in Lao PDR</td>
<td>To see the effect of autonomy on mothers in children who are stunted in Lao PDR</td>
<td>Research Design: Cross-sectional  The population and sample in this study were 100 mothers and their 115 children (&lt;5 years) from semi-urban communities in Lao PDR, which is the country with the highest prevalence of childhood stunting in the Indochina region.  The research instrument used a questionnaire and a body scale</td>
<td>The likelihood of stunting in children was significantly lower if the mother had higher self-efficacy regarding health care (OR = 0.15, p = 0.007), self-esteem (OR = 0.11, p = 0.025), or financial control. (OR = 0.11, p = 0.041). In contrast, maternal decision-making power and freedom of mobility were not significantly associated with the incidence of stunting in children</td>
</tr>
</tbody>
</table>
joint decisions with their husbands. On the other hand, every woman must first seek permission from her husband when making decisions.

**DISCUSSION**

Families with working mothers can influence the increasing prevalence of stunting. Mothers who are busy with their careers are considered few and cannot give full attention to their children because they are busy with their careers and are rarely at home. There are positive things with mothers who also have a career because they can increase the family's economic income and meet children's nutritional needs. But on the other hand, the negative side is that mothers who have careers cannot see directly in the fulfillment of their children's nutrition. Currently, in the era of development, women in developing countries increasingly have roles other than as wives. They can also be housewives or career women.15

Based on the review above, empowering women is very influential in preventing the incidence of stunting. Women's empowerment in preventing stunting has several types, including empowering women in providing education about nutrition to mothers and children and empowering women in terms of decision making.

**Women's empowerment in Education and Knowledge**

Empowering women in education and knowledge has a significant effect in preventing stunting. Mother's knowledge about nutrition has an impact on childhood stunting.16 Providing education about health care during pregnancy, such as the importance of micronutrients and macronutrients for pregnant women, can prevent stunting in children.17

Another knowledge in preventing stunting is education about the importance of the first 1000 days of life intervention for children. Educational interventions for 1000 days of life include the importance of early initiation of breastfeeding, exclusive breastfeeding (0-6 months), complimentary food when the child is six months-2 years old, immunization and vitamin A, monitoring children's growth and development during the age of 6-59 months at the nearest Posyandu, and implement Clean and Healthy Behavior in the home environment.18

The less optimal growth of children in toddlerhood can also be influenced by poor nutrition in the mother. During the low postnatal period, good feeding practices can reduce the development of intrauterine occurrences. On the other hand, if the baby is born and the food intake is insufficient, it will be at risk of infection and obstacles in the child's growth, which will impact the incidence of stunting.19

In addition, it is also crucial to provide education to young women about reproductive health, balanced nutrition, and consumption of Fe Tablets during adolescence. Consumption of Fe Tablets in adolescent girls is very substantial because young women who experience puberty and menstruation are prone to anemia and risk continuing during their pregnancy. Pregnant women who have anemia affect fetal development and risk stunting.20

**Women's empowerment in decision making**

Decision-making for women has no significant effect on stunting prevention in Pakistan, Laos, Ethiopia, and Pakistan because every woman always consults with the head of the family when making decisions about the family's economic needs and access to health services.21 A research study conducted in Bangladesh explains that one of the traditional in this country is a man who is the most dominant figure in decision making in a family, both in economic terms and in making decisions in obtaining health facilities.22

In addition, research from Caroline G. McKenna also states that there are some differences regarding the allocation of resources, especially between men and women, which allows women to allocate fewer resources for the welfare of their children. These resources will also affect the nutritional value of their children later. It also depends on men and women in decision-making discussions, especially child resources. Research conducted in the Congo State shows that fathers are more dominant in final decision-making in most domestic life. 26% of women in the country do not make decisions regarding household purchases or health care in the family. This statement is in line with the high rate of malnutrition in children, where women who are few in decision-making will affect nutrition in children.23,24

Other research conducted in Indonesia also explains that in Indonesian culture, most of the decisions in the household are with the head of the family because most of the fathers are the drivers of the family economy. Women are housewives, so every woman must ask permission first from the husband to manage the economy and expenses in the family, such as obtaining health facilities.25

**CONCLUSION**

Journal reviews concluded that the incidence of stunting is still high in Bangladesh, Pakistan, Ethiopia, and Laos, all of which are low- and middle-income countries (LMIC), and that efforts to prevent stunting must continue. Empowering women is one approach that can be taken to help prevent stunting.

Women's current educational status is a crucial indicator for preventing stunting because educated women can find the best source of information about nutritional intake in children. Meanwhile, empowering women in the aspect of independent decision-making does not significantly prevent stunting because in making decisions, women must discuss with the head of the family.

Based on the explanations of some of these articles regarding the empowerment of women in stunting prevention, it is very important and influential in reducing the incidence of stunting in children, so the authors hope that in the future, this review can be developed again so that it can be a reference in research related to stunting prevention in children.

**CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest regarding the manuscript.

**FUNDING**

This article did not require any funding.
ETHICS APPROVAL
Not applicable.

AUTHOR CONTRIBUTION
All authors contributed to the preparation of this review.

REFERENCES
4. Hagos S, Hailemariam D, Neufeld LM. Women's decision-making power and utilisation of maternal healthcare services: results from the Bangladesh Demographic and Health Survey. BMJ Open [Internet]. 2017;5(9):e017142. Available from: https://dx.doi.org/10.1371/journal.pone.017142