



Empowerment Approach as a Stunting Prevention Intervention: Scoping Review

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ABSTRACT

Stunting is a cumulative reflection of chronic nutrition, infection, and other factors that occur from time to time and cause health problems and poor child development, and can endanger the quality of life of future generations of a nation. Interventions to overcome the problem of stunting have been carried out in various ways, both specifically and sensitively. Stunting is still a global issue, and various interventions have been carried out to overcome it, one of which is the empowerment approach which is an important principle to improve the quality of life. This study is a scoping review that contains literature on empowerment as a stunting prevention intervention. Article searches are carried out using online databases such as Google Scholar, PubMed, and Proquest. PRISMA flow chart was used for selection. The search results yielded 4,419 literature, title screening rejected 1,648 kinds of literature, and 115 items screened full text, with 12 kinds of literature meeting the inclusion requirements. The empowerment approach that is often carried out is women's empowerment, but in stunting prevention interventions, women's empowerment approaches are not enough to require other empowerment efforts such as empowering cadres as well as families and communities. The involvement of the community's active role is necessary to prevent stunting because the community is the front line and understands the problems that occur in their respective regions, so the concept of the approach top-down and bottom-up must work well together. Joint efforts are needed in preventing stunting, one of which is the empowerment that is not only focused on empowering women but can also be empowered cadres, families, and communities. In determining empowerment indicators, it is hoped that it will not be too broad because the indicators, domains, and questions used in a study aimed to measure empowerment or in developing an empowerment index.

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Kata kunci:

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ABSTRAK

Stunting adalah cerminan kumulatif dari gizi kronis, infeksi, dan faktor lain yang terjadi dari waktu ke waktu dan menjadikan masalah kesehatan serta tumbuh kembang anak yang buruk, serta dapat membahayakan kualitas hidup generasi masa depan suatu bangsa. Stunting masih menjadi isu dunia, dan berbagai intervensi telah dilakukan untuk mengatasinya, salah satunya dengan pendekatan pemberdayaan yang merupakan prinsip penting untuk meningkatkan kualitas hidup. Kajian ini merupakan scoping review yang memuat literatur tentang pemberdayaan sebagai intervensi pencegahan stunting. Pencarian artikel dilakukan dengan memanfaatkan database online seperti Google Scholar, PubMed, dan Proquest. Diagram alir PRISMA digunakan untuk seleksi. Hasil pencarian menghasilkan 4.419 literatur, penyaringan judul ditolak 1.648 literatur dan 115 item disaring teks lengkap, dengan 12 literatur memenuhi persyaratan inklusi. Pendekatan pemberdayaan yang seringkali dilakukan adalah

pemberdayaan perempuan, tetapi dalam intervensi pencegahan stunting pendekatan pemberdayaan perempuan saja tidak cukup perlu upaya pemberdayaan lainnya seperti pemberdayaan kader maupun keluarga serta masyarakat. Pelibatan peran aktif masyarakat sangat diperlukan sebagai upaya pencegahan stunting, karena masyarakat adalah garda terdepan dan memahami masalah yang terjadi di wilayah masing-masing, sehingga konsep pendekatan topdown dan bottom up haruslah bersinergi dengan baik. Perlu upaya bersama dalam pencegahan stunting salah satunya dengan pemberdayaan yang tidak hanya difokuskan kepada pemberdayaan perempuan saja tetapi dapat juga dilakukan pemberdayaan kepada kader, keluarga maupun masyarakat. Dalam penentuan indikator pemberdayaan diharapkan tidak terlalu luas karena indikator, domain dan pertanyaan yang digunakan didalam sebuah penelitian bertujuan untuk mengukur pemberdayaan atau dalam pengembangan indeks pemberdayaan.

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INTRODUCTION

Nutrition is still a global concern because it has a significant effect on the quality of Human Resources. One of the most serious nutritional problems is stunting (Dangmei, 2016). Stunting is a state of chronic malnutrition caused by inadequate nutritional intake over time as a result of feeding that does not meet nutritional needs (Kusumawardani et al., 2020). The causes of stunting are very diverse, ranging from direct factors such as maternal and child health to indirect factors such as environmental, social, and economic factors. While the impact of stunting is short-term impact to long-term impact, which can cause disease and even death (Budiasutik and Nugraheni, 2018; BPS, 2019). Stunting is not only short but also affects the development of brain cells so that children's cognitive abilities and intelligence both now and in the future when they are adults (Moh. Husni Thamrin et al., 2021).

Currently, globally it is estimated that 144 million children are stunted (UNICEF and WHO and The World Bank Group, 2020). Various efforts have been made to overcome the stunting problem, both through efforts in the health sector and outside the health sector (Huicho, 2017). All lines moving to tackle the stunting problem, some studies even note that the role of all sectors will have a good impact on efforts to accelerate stunting reduction with the hope that the target from the World Health Organization (WHO) can be met, which is below 20% (Antonio Suarez Weise, 2014).

Reducing the current burden of stunting requires a paradigm shift from interventions that only target children and infants into interventions that reach out to mothers, families, communities, and improve the environment and nutrition, implying a partnership between top-down and bottom-up approaches (Goodarz Danaei et al, 2016). So far, the top-down model has been more centralized, with the central government determining all program development and implementation without involving the community. The government carries out development without first determining whether the program is needed by the community so that the existing program is not on target. On the other hand, society is positioned as an object that will get and enjoy the results of a predetermined program (Rahmat and Mirnawati, 2020). To date, this model has been firmly rooted in the development process in developing countries, including health development.

With the increasing complexity of the stunting problem that must be addressed, it is becoming clear that top-down strategies are not beneficial for the long-term success of

stunting management. The bottom-up approach is critical to the procedures needed to link global and national efforts to what is happening at the grassroots level. Society is no longer treated as an object of development but as a subject of development (Rahmat and Mirnawati, 2020). Stunting occurs in individuals and households that have microsystems that drive outcomes, decision making, and distribution of resources, thereby influencing the direct determinants of children's growth and development. If communities do not recognize stunting as a problem, they will have little incentive to implement household prevention initiatives or to take advantage of services available to promote child growth and development, such as proper feeding, psychosocial stimulation, hygiene, and disease prevention treatment the infection contribute. against malnutrition (WHO, 2014).

Several studies have found that community involvement efforts through empowerment have proven that a bottom-up approach is one solution in overcoming the stunting problem because community involvement creates awareness of rights, needs, and responsibilities in stunting prevention through individual and household interventions (WHO, 2014). The purpose of this study is to obtain an overview of the empowerment approach as a stunting prevention intervention from various scope reviews.

METHOD

We conducted a scoping review design of the empowerment approach as an intervention for stunting prevention. Scoping review design is a way to identify the literature in depth through various literature sources that are related to the study problem under consideration. Three authors were responsible for reviewing the title, abstract, and full text for inclusion. According to Arksey and O'Malley, the scoping review steps are as follows: (1) identification of the question or purpose of the review; (2) finding relevant literature; (3) literature selection; (4) data mapping; and (5) summarize and report the results of (6) Expert consultation (Hilary Arksey, 2007).

Three search engines were used to search for literature, namely Google Scholar, PubMed, and Proquest. The search format uses PEO (Population, Exposure, Outcome). The search format used in the literature search was based on the research topic, namely, P = Infants aged 0-24 months; E= empowerment; and O= stunting intervention. The key to the

search is as follows toddler “and” empowerment “and” intervention “and” stunting. Based on the first search results using keywords found 3,890 literature from Google Scholar, 20 pieces of literature from Pubmed, and 409 literature from ProQuest. In addition, the material displayed in search engines is selected based on inclusion and exclusion criteria. The literature generated in the last five years, from 2017 to 2021, in the form of empirical studies, with full text and open access available in English, meeting the inclusion requirements. If the requested scope was not found in the literature, the exclusion criteria were used. Based on these criteria, literature was collected from 1,590 Google Scholar articles, 14 Pubmed articles, and 44 ProQuest articles. Furthermore, screening is done by reading the title and abstract to find out their relevance to the research subject. The screening method yielded 19 relevant pieces of literature. Seven kinds of literature were rejected because they did not contain the contents of the scope. Seven kinds of literature were excluded because they did not contain the content of the scope sought. The final results of the literature that will be reviewed are 12 kinds of literature. To see the details of the results of this literature selection, the selection

steps are described in the PRISMA diagram (Figure 1) (Tricco *et al.*, 2018).

RESULT

At this stage, the selected literature is summarized and arranged in a literature summary table. The summary is then subjected to content analysis. The table 1 is a synopsis of the 12 selected literature.

Based on 12 selected literature, 6 kinds of literature show empowerment from the women’s sector, 2 kinds of literature on cadre empowerment, 2 kinds of literature on family empowerment, and 2 kinds of literature on community empowerment. The entire literature meets the quality of the context and scope sought, namely an empowerment approach to overcome stunting problems and the results of this study will strengthen intervention measures to prevent stunting through empowerment. The results of the analysis are summarized in 4 scopes.

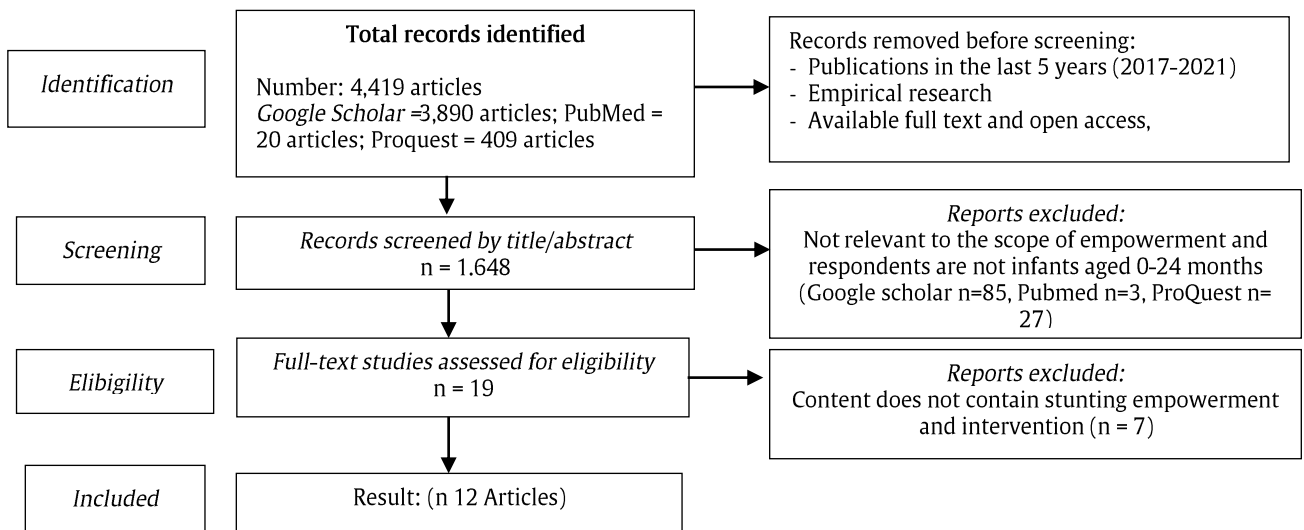


Figure 1. PRISMA flow diagram of the scoping review process.

Table 1.
Summary of Selected Literature

No	Authors	The place	Design	Empowerment Context	Results
1	(Cunningham <i>et al.</i> , 2019)	Nepal	<i>Cross-sectional</i>	Empowerment of women, sanitation hygiene, and nutritional status of children.	Women’s empowerment is associated with length-for-age z-scores (LAZ) and household water, sanitation, and hygiene (WASH). Empowered women practice better hygiene and sanitation than non-empowered women.
2	(Hamdie, Somp, and Anshar Nur, 2020)	Indonesia	<i>Mix Method</i>	Human Development Cadre, stunting.	In developing a community empowerment plan using a strategy with analysis of Strength, Weakness, Opportunity, Threat (SWOT) and Analysis of Internal (IFAS) and External (EFAS) Factors in overcoming the problem of stunting.
3	(Martha, et al 2020)	Indonesia	<i>Quasi Experiment</i>	Cadres, traditional birth attendants, stunting.	There was considerable variation in the level of knowledge of cadres and traditional birth attendants before and after the training. The target group educates and empowers the community through cadres and traditional birth attendants so that empowerment is considered effective as a stunting prevention intervention.

4	(Januarti, Abdillah and Priyanto, 2020)	Indonesia	<i>Cross-sectional</i>	Family empowerment, stunting	The external component through stunting empowerment, with a value of 0.264, is the most powerful indirect data from tracking stunting prevention pathways. The internal stunting prevention factor with a value of 0.114 has the second-largest indirect impact on stunting prevention. Stunting prevention can be improved with a family empowerment approach based on a family-centered nursing strategy.
5	(Amaliyah and Mulyati, 2020)	Indonesia	<i>Quasi Experiment</i>	Community empowerment, nutrition rehabilitation, stunting.	Nutrition education and rehabilitation are both beneficial in increasing community empowerment in stunting prevention ($p < 0.05$).
6	(Abreha, Walelign, and Zereyesus, 2020)	Ethiopia	<i>Cross-sectional</i>	Empowerment of women, socio-economic, stunting.	Increased empowerment of women in the household in terms of socioeconomic status was associated with a lower likelihood of stunting ($p < 0.05$). All aspects of women's empowerment are not related to child health indicators.
7	(Rishi Kumar, 2021)	India	<i>Cross-sectional</i>	Empowerment of women, nutrition	Women's financial independence is one of the characteristics associated with child growth and stunting reduction. Therefore, empowering women is very important to improve child nutrition and prevent stunting.
8	(Yaya <i>et al.</i> , 2020)	Africa	<i>Cross-sectional</i>	Empowerment of women, child nutrition.	Women's socio-demographic and other characteristics were significantly related to the nutritional status of children ($p < 0.001$). This characteristic is also statistically significantly related to women's empowerment status (Decision making, Attitudes to violence, and experience of violence).
9	(Sharma and Subramanyam, 2021)	India	<i>Cross-sectional</i>	Family empowerment, stunting.	Toddlers who live in poor families but have empowered parents regardless of gender will experience a lower incidence of stunting than toddlers who have helpless parents (OR: 0.92, 95% CI: 0.84 - 1.02) and stunting (AOR: 0.87, 95% CI: 0.77-0.98).
10	(Putro, Sukoco and Dewi, 2020)	Indonesia	<i>Mix Method</i>	Community empowerment, local wisdom, stunting	Community empowerment is based on local wisdom by making collective agreements in dealing with children's nutrition problems, namely through child care, nutrition, and sanitation.
11	(Mekonnen <i>et al.</i> , 2021)	Ethiopia	<i>Cross-sectional</i>	Empowerment of women, child development.	Empowerment domains related to child growth disorders are attitudes towards violence, social independence, and decision making.
12	(Onah, 2021)	South Asia	<i>Cross-sectional</i>	Empowerment of women, socio-economic and nutritional status of children.	Children who grow up in homes where women have more power have better nutritional outcomes. It is possible to carry out women's empowerment activities by increasing social independence and decision-making authority as a strategy to minimize stunting.

DISCUSSION

Stunting Concept

Stunting is the inability to fulfill its full growth potential as a child as a result of chronic malnutrition and recurrent disease. Stunting can permanently impair a child's cognitive abilities and physical abilities, causing long-term harm (Antonio Suarez Weise, 2014; UNICEF, 2018; BPS, 2020). As a result, stunting is a poor predictor of the quality of Human Resources which affects the development of the nation's potential (UNICEF, 2013; Kohli *et al.*, 2020). Stunting is caused by various circumstances, one of which is people who do not realize that stunting is a problem. The community believes that short and stunted children are not a problem because stunted children are still considered healthy and can participate in the same normal activities as other children, in contrast to the problem in the case of thin children which must be addressed immediately. Likewise, individuals

underestimate the importance of nutrition during pregnancy is contributing to the nutritional status of babies who will be born in the future (Himawaty, 2020). Therefore, the community needs to respond to positive changes in health behavior, especially in terms of preventing stunting.

Empowerment and Stunting Concept

Several studies have been conducted to prove intervention efforts with an approach to the community, and our findings show that empowerment has an important role as an effort to prevent and treat stunting because empowerment has a strong meaning, namely promoting the active role of the community and is sustainable where all solutions to health problems come from the community itself. One of the most important principles in health promotion to improve quality of life is empowerment. According to WHO, empowerment is at the heart of health promotion because it allows individuals to have greater

influence over health-related decisions and activities. Positive self-confidence, ability to achieve goals, sense of control over life and the process of change, and enthusiasm for optimism for the future are all results of empowerment. Empowerment is assisting individuals in achieving the ability to change (Alimoradi *et al.*, 2017). In the application of empowerment, values such as the value of struggle, the value of kinship, cooperation, or togetherness are required to be able to stand alone in society and also become a force to be empowered. The capacity to empower the community is a very possible component for the creation of a sustainable society, in a dynamic understanding for self-growth to achieve progress. National resilience refers to the ability to stand alone for the community as a source of political wisdom at the national level (Mekonnen *et al.*, 2021). Empowerment in the health sector is more about increasing community participation in the health sector, so it is bottom-up (Tri Sunarsih *et al.*, 2018).

Empowerment can cover many fields, but in this case, the empowerment that is most commonly encountered is the empowerment of women, which is associated with the problem of stunting. Empowerment of women is not only an outward process but also an inner transformation. Women's empowerment is a multidimensional topic with various interpretations of its meaning and uses. This is sometimes referred to as decision-making capacity and is characterized as an evolving process by which women acquire the ability to exercise agency and make strategic life decisions where they were previously unable to do so. Although women's empowerment is not a sufficient prerequisite to achieve just and sustainable development, women's empowerment is also needed as a development reinforcement (Fifi and Hendi, 2020).

A study on the determinants of stunting proves that hygiene, sanitation, and water treatment are factors that cause stunting in toddlers (Al, 2016). In addition, hygiene, sanitation, and water treatment programs are recognized as determinants of children's growth, so with these findings, women who have been empowered in terms of a hygiene and sanitation approach can prevent their children from experiencing health problems, especially stunting. Cunningham examined the relationship between facilities, practices of diversity in food, water, sanitation, and household hygiene with women's empowerment, and the results of the length score for child age showed that overall, women's empowerment was positively related to LAZ scores ($\beta = 0.24$, $P = 0.03$); Women's empowerment was positively related to water, sanitation, and hygiene ($\beta = 0.78$, $P < 0.001$) and children's LAZ ($\beta = 0.09$, $P < 0.001$). In this study, empowered women have practices in water treatment, sanitation (Cunningham *et al.*, 2019). This is possible because empowered women have improved access and decision-making around the use of financial resources, making it possible to purchase soap as a tool for washing hands so that the behavior of Washing Hands with Soap can be carried out well by all families. In addition, empowered women can afford to buy equipment to ensure the cleanliness of toilets, or even facilities related to water, sanitation, and hygiene such as toilets and safe drinking water treatment.

Empowerment of women is often represented in family situations such as the nutritional status of children, especially stunting, Yaya (2020) reveals that there is an independent relationship between the nutritional status of children under five and women's empowerment and is supported by Mekonnen (2021) that the incidence of malnutrition in children is not only due to food factors but can because of the role of women. Empowerment of women

can make the nutritional status of children more optimal. This is because women have a high influence in the selection, procurement, preparation, and delivery of food for children. Empowered women can also play a role in child care by making decisions about distributing available resources and selecting food for children. (Yaya *et al.*, 2020; Mekonnen *et al.*, 2021). In contrast to Abreha's analysis (2020) which measures women's empowerment through an index of women's participation in decision making, attitudes towards violence by husbands, barriers to access to health care, asset ownership, and socio-economic variables. The study stated that all aspects of women's empowerment were not related to child health indicators. The dimensions of women's empowerment related to child health have varying degrees of association with different indicators of child health. Although it was stated that it was not related to child health indicators, Abreha stated that women's empowerment was multidimensional in terms of the obstacles faced by women in accessing health services, decision making in the household, attitudes towards domestic violence (Abreha, Walelign, and Zereyesus, 2020). In terms of finding economic indicators in the empowerment index, Kumar (2021) corroborates the findings by stating that women's empowerment can increase women's ability to access development constituencies, especially health. Women's financial autonomy can play an important role in fighting stunting and improving overall child health outcomes (Rishi Kumar, 2021). Women who are empowered and healthy will be able to raise children and maintain the health of other family members. Empowerment of women is a very complex problem and the process of child growth and development, as well as the nutritional status of children, is related to the level of autonomy that women have in influencing changes in the household. Policies and programs aimed at preventing child stunting should include interventions designed to empower women with more appropriate indicators (Yaya *et al.*, 2020). Onah's research findings add to the growing consensus that to improve children's nutritional outcomes, women's empowerment initiatives must be an area of investment for optimal outcomes (Onah, 2021).

Empowerment is essentially not only on the women's side, empowerment can also be carried out with family-based empowerment as stated by Januardi, that family empowerment based on the family care model can improve stunting prevention (Januarti, Abdillah, and Priyanto, 2020) This is in line with what was described by Sharma, that toddlers who live with poor families but have empowered parents regardless of gender will experience a lower incidence of stunting than toddlers who have helpless parents (Sharma and Subramanyam, 2021). Family empowerment is essentially helping families in the process of change that will be implemented, strengthening family resilience and adaptation, discovering and increasing family potential, responsibilities, and functions, so that family empowerment is needed to overcome health problems (Hany, Yulistianingsih and Kusumaningrum, 2022). Stunting prevention can be improved through family empowerment based on the family care paradigm. In addition to women or families, the role of cadres in helping to provide education about stunting that is carried out holistically and comprehensively is also considered important. The cadres have a vital role in society, apart from being a health information provider but also as a community mobilizer and very useful for maintaining health services for the community, especially for the poor (Aini *et al.*, 2021; Rent *et al.*, 2019). This means that the role of health cadres is very important and is at the forefront of stunting prevention

(Himawaty, 2020), then to improve the competence of cadres and carry out their roles and functions properly so that stunting prevention programs can run sustainably, cadres need to be educated and trained continuously. The empowerment of cadres was described by Martha, which showed that there was a significant difference in the level of knowledge of cadres and traditional birth attendants before and after training ($P = 0.0005$) with an increase in knowledge of 30.68%. Empowerment by providing education on early detection and prevention of stunting is considered quite effective for the role of cadres and traditional birth attendants in society (Martha *et al.*, 2020). This review is reinforced by the results of other studies that empowerment through cadres has been shown to increase the understanding of mothers under five about the dangers of stunting so that mothers can provide additional food to increase the supply of excellent nutrition for children, and succeeded in increasing the involvement of cadres in preventing stunting (Himawaty, 2020). In line with this study, Amaliyah (2020) explained that increasing knowledge related to nutritional rehabilitation through workshops or training is effective in increasing community empowerment as a step to reduce stunting (Amaliyah and Mulyati, 2020). Cadre training is a strong provision for empowering and increasing the knowledge and behavior of cadres themselves or community groups accompanied by cadres in stunting prevention efforts (Akhmadi, et al, 2021; Rahmawati and Dewi Sartika, 2020). But on the other hand, the role of health cadres cannot run effectively if it is not balanced by the role of the family, especially the role of parents because this is also an important foundation in stunting prevention efforts (Himawaty, 2020; Aini, Alifatin and Anggraini, 2021).

On the other hand, Putro (2020) proves that carrying out an empowerment-based intervention strategy does not only involve one party but rather explores the existing potential by prioritizing local wisdom by involving community leaders, religious leaders, and related health workers to overcome malnutrition in children, including stunting (Putro, Sukoco and Dewi, 2020). The intervention strategy based on the community empowerment approach revealed by Meutia (2019) revealed that there is a need for collaboration between stakeholders to accelerate nutrition improvement activities in the prevention and handling of stunting (Meutia and Yulianti, 2019). This is as stated by Hamdie (2020) in his research which states that an empowerment approach strategy that can start with a SWOT analysis and explore internal and external factors (Hamdie, Sompia and Anshar Nur, 2020). The analysis of these internal and external factors has been described in Himawaty's (2020) study that in providing an intervention it is necessary to do it effectively and efficiently based on the risk factors that occur in the area. The key to the successful implementation of empowerment is the need for efficient program analysis and planning activities to maximize the potential of existing resources in an area such as using the available budget for stunting reduction programs, increasing human resource capacity, and establishing communication between sectors as well as making joint work plans in dealing with stunting, so that the role of each party will appear in the prevention of stunting (Hamdie, Sompia and Anshar Nur, 2020; Himawaty, 2020). Community empowerment management needs to be improved by instilling awareness to be involved in handling malnourished and malnourished toddlers to normal nutritional status and no longer experiencing stunting and preventing stunting in the future (Amaliyah and Mulyati, 2020).

This evidence-based analysis strengthens that empowerment can be studied and applied more deeply in various sectors, not only for women or housewives but also with family empowerment without distinguishing gender between men as fathers and women as mothers and can involve all components in the community by prioritizing local wisdom resources because efforts to prevent stunting require joint efforts from various parties so that stunting can be prevented properly. In carrying out the community empowerment strategy it is necessary to emphasize that the ability to solve health problems in the community will not be created with only one resource without the support of other resources (Meutia and Yulianti, 2019). The outline of the results of the analysis of the existing literature is that the empowerment approach with a multidimensional concept has a significant influence on stunting prevention interventions, so this reinforces that a bottom-up approach is needed with the involvement of community groups and must synergize with the top-down in dealing with public health problems, especially stunting. Combining interventions between the implementation of policies by the government and interventions involving the community as the main actors will be very effective to be applied in solving a problem, including stunting (Saharudin, 2009).

LIMITATIONS

The main obstacle in the comparability of empowerment studies is the broad nature of the indicators, domains, and questions used to measure empowerment or in developing an empowerment index.

CONCLUSION

The empowerment approach is an important intervention in prevention efforts. From the study, it is known that several empowerment strategies such as empowering women, empowering families, empowering cadres, and empowering communities as intervention strategies for stunting prevention. The most frequently discussed topic is the behavioral change of the target group after the empowerment intervention. Therefore, a holistic, integrative, and comprehensive effort is needed from the community to the central government in the sense that the top-down and bottom-up approaches must go hand in hand so that the acceleration of stunting reduction can be implemented and meet the WHO targets and can prevent stunting in the future.

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Declaration Of Competing Interest

Not available. Conflict of Interest: The author declares no conflict of interest.

Disclaimer

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