

# Stunting and Family Socio-Cultural Determinant Factors: A Systematic Review

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## ABSTRACT

**Background:** Stunting is a major public health problem in many developing countries including Indonesia and several ethnic groups have a very high prevalence of stunting which is caused by socio-cultural factors in the family. **Objective:** This study aims to review family social and cultural factors in relation to stunting. **Method:** This research uses a systematic review using the PRISMA method. There are 5 steps in this method namely determining the literature topic, searching for sources, selecting relevant sources, grouping and analyzing, and summarizing published research articles on family social culture on stunting published between 2018-2022 in the online article databases PubMed, Proquest, Scopus, Google Scholar and Scencedirect. Data collection techniques by entering keywords in the database, keywords used: family social culture, intervention AND family environment risk of stunting\*social demographics OR health education OR family empowerment OR maternal nutritional behavior OR family empowerment AND stunting. Screening consists of title, abstract, year of research, and methods used. Next, sorting the articles according to the predetermined inclusion criteria. The inclusion criteria in this study are: (1) Quantitative type of research with primary data; (2) Contains research results on socio-cultural factors that influence stunting in children; (3) the year the research was published in the last five years (2018-2022), (4) the sample used was families (children), (5) the text of the article was in English. A total of 18 of 1,544 articles met the inclusion criteria for this review material. **Results:** This study shows that from the 18 selected articles it was found that stunting is caused by socio-cultural and family demographics, family nutritional behavior, and the family environment at risk of stunting. In addition, a model of health education and family empowerment based on family socio-culture was obtained. **Conclusion:** This study found that family social culture is a significant determinant of stunting. Therefore, further research needs to be carried out to complete our understanding of the complexity of the stunting problem.

**Keywords:** Stunting, Family Behavior, Social Culture, Health Education.

## INTRODUCTION

Stunting is a major public health problem in most developing countries. Stunting is influenced by various factors, including family socio-cultural determinants. These factors include education level, income, employment, and family living habits which can influence children's nutritional conditions. The family as the smallest unit in society has an important role in preventing stunting in children<sup>1</sup>. Although, its prevalence worldwide is decreasing slowly the number of stunted children is still increasing in Pakistan<sup>2</sup>. Stunting is related to health and nutrition experienced by children due to impaired growth in shorter height caused by insufficient nutritional intake, both micronutrients and macronutrients, over a long period of time<sup>3</sup>. Based on data from the World Health Organization (2022), children who experience stunting are 31,1% and The average prevalence of stunting in sub-Saharan Africa is estimated at 41%<sup>4</sup>. Indonesia faces a major public health nutritional problem, namely cases of stunting in children with The prevalence of stunting in Indonesia fell from 24,4% in 2021 to 21,6% in 2022 and the second highest in Southeast Asia<sup>5</sup>.

This condition is exacerbated by lack of optimal parenting patterns, which can lead to an increase in the prevalence of stunting<sup>6</sup>. Increasing access to food at the household level and improving parenting patterns as well as involving the role of

the family in cultivating a family eating culture that has elements of positive nutritional education passed down from generation to generation<sup>7</sup>, especially responsive feeding of children can prevent a decline in children's nutritional status and prevent stunting<sup>8</sup>. The condition of poor communities with poor sanitation is a factor that is currently an obstacle to nutritional interventions in the community<sup>9</sup>. In addition, inappropriate complementary feeding behavior by caregivers due to lack of nutrition, knowledge about optimal feeding practices, inadequate awareness adequate regarding the frequency of feeding, and the amount of food that should be given to the child<sup>10</sup>, which constitutes a balanced diet and cultural beliefs are modifiable factors that can contribute to a decrease in the nutritional status of the child<sup>11</sup>.

One of the factors that influences health status, including fulfilling family nutrition, is socio-cultural. Social and cultural aspects greatly influence people's life patterns, including maintaining the health of babies and children, especially in terms of food consumed by the family, in addition to the father's occupation and education, household income, number of household members who earn income, geographical location, caste/ethnicity and nutritional knowledge with a higher chance of suffering from stunting<sup>12</sup>. Several previous studies have shown that the level of parental education can influence children's nutritional conditions. Parents

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with a higher level of education tend to have better knowledge and awareness about nutrition and healthy parenting. Apart from that, the level of education can also influence a family's income and socio-economic status which has an impact on access to food and health services<sup>13</sup>. Apart from that, family income is also an important factor in preventing stunting in children. Families with higher incomes tend to be better able to meet children's nutritional and health needs, such as buying nutritious food and obtaining adequate health services. Parents' work also has an influence on children's nutritional conditions. Parents who work in the informal sector or have unstable jobs tend to have irregular and inadequate income. This has an impact on family access to adequate food and health services<sup>14</sup>.

Apart from the factors above, family living habits can also influence children's nutritional conditions. Unhealthy eating habits, such as consuming fast food and caffeinated drinks, as well as lack of physical activity, can have an impact on children's health and growth<sup>15</sup>. Stunting is a chronic nutritional problem that is still a concern in Indonesia<sup>16</sup>. Several studies show that family socio-cultural determinants have an important role in preventing or worsening stunting conditions in children<sup>17</sup>. Therefore, it is very important to study the social and cultural determinants of families in the incidence of stunting based on this systematic review so that appropriate interventions can be carried out according to the causal factors.

**Table 1. Summary of Selected Research Findings on Social and Cultural Determinants of Families with Stunting.**

No.	Researcher (Years)	Title	Research design	Sample	Findings
1	Manjong FT, Verla VS, Egbe TO, Nsagha DS.(2021) <sup>14</sup>	Undernutrition among under-five indigenous Mbororo children in the Foumban and Galim health districts of Cameroon: A cross-sectional study	Cross-sectional study (Cross-sectional study)	Involving 472 childcare pairs from 16 Mbororo Traditional Communities in the Foumban and Galim health areas	It was found that different socio-cultural characteristics, religion and language can influence the occurrence of stunting and wasting.
2	Sutarto, Neti Yuliana, Samsu Udayana Nurdin, Dyah WUlan Sumekar Rengganis Wardani (2022) <sup>18</sup>	The Influence of Local Culture on Mothers During Pregnancy on Stunting Incidence	Quantitative with Cross-sectional study	114 children aged 24-59 months	There is a relationship between local cultural behavior during pregnancy and eventsstunting(p=0,001; OR=88.400)
3	Orellana JDY, Gatica-Domínguez G, Vaz J dos S, Neves PAR, de Vasconcellos ACS, de Souza Hacon S, et al.(2021) <sup>17</sup>	Intergenerational Association of Short Maternal Stature with Stunting in Yanomami Indigenous Children from the Brazilian Amazon.	Cross-sectional census study	298 children	Nutrition programs are very important to prevent stunting in different ethnic and cultural contexts
4	Van Tuijl CJW, Madjidian DS, Bras H, Chalise B.(2021) <sup>13</sup>	Sociocultural and economic determinants of stunting and thinness among adolescent boys and girls in Nepal.	Multivariate logistic regression models	3773 teenagers aged 10-19 years (1888 boys and 1885 girls) were stunted and underweight	Sociocultural and economic influences on nutritional outcomes in social, cultural settings with stunting
5	Orellana JDY, et al. (2021) <sup>19</sup>	Intergenerational Association of Short Maternal Stature with Stunting in Yanomami Indigenous Children from the Brazilian Amazon.	Cross-sectional study	298 children	The relationship between family environment and stunting in different ethnic and cultural contexts.
6	Ademas A, et.al. (2021) <sup>20</sup>	Water, sanitation, and hygiene as a priority intervention for stunting in under-five children in northwest Ethiopia: a community-based cross-sectional study.	Cross sectional study	630 participants	Appropriate use of family planning, good food intake, maternal and paternal education, and WASH interventions are essential.
7	Vikram K, et.al. (2020) <sup>21</sup>	Maternal education and the multidimensionality of child health outcomes in India.	Survey	11,026 women	Maternal education and family environment impact child health and medical care through maternal role interventions, adolescent empowerment and social and cultural capital
8	Ciptanurani C, Chen H-J. (2021) <sup>7</sup>	Household structure and concurrent stunting and overweight among young children in Indonesia.	Cross-sectional survey	Children aged 2-5 years (n 45,050)	Household structure is associated with stunting and overweight in children in urban and rural areas in Indonesia.
9	Kabir A, et.al. (2020) <sup>22</sup>	Women's empowerment is associated with maternal nutrition and low birth weight: Evidence from Bangladesh Demographic Health Survey.	Survey	27,357 women and 9,234 mother-child pairs	The study found that women's empowerment and provides strong evidence that low levels of women's empowerment are associated with maternal malnutrition and the birth of LBW babies
10	Sari K, et.al. (2021) <sup>23</sup>	The effect of the physical factors of parents and children on stunting at birth among newborns in Indonesia. J Prev Med Public Heal. 2021;54(5):309.	Cross-sectional	756 children	Interventions to reduce stunting aimed at pregnant women must also consider the parents' stature, age and parity

11	Watson HJ, et.al. (2018) <sup>24</sup>	Children of parents with eating disorders.	cohort	2015 parents	Parental eating behavior, food choices and a relatively high incidence of eating disorders in the individual and family environment result in stunting.
12	Shapu RC, et.al. (2022) <sup>25</sup>	Effectiveness of Triple Benefit Health Education Intervention on Knowledge, Attitude and Food Security towards Malnutrition among Adolescent Girls in Borno State, Nigeria.	Randomized controlled trial	417 teenage girls	Empowering families in providing nutrition education at home is more practical for teenagers, because family groups have a stronger adoption influence on children's healthy behavior.
13	Ponum M, et.al. (2020) <sup>2</sup>	Stunting diagnostic and awareness: impact assessment study of sociodemographic factors of stunting among school-going children of Pakistan.	Cross-sectional study	1420 children	This study shows that the social literacy of mothers or caregivers has a high impact on children's health. teach about stunting prevention.
14	Fenske N, et al. (2018) <sup>26</sup>	Understanding child stunting in India: a comprehensive analysis of socio-economic, nutritional and environmental determinants using additive quantile regression.	Cross-sectiona study	12176 participants	It was found that household income, maternal education and BMI showed the greatest effect or influence as well as maternal height, maternal age, maternal BMI, birth order and number of visits.
15	Manjong FT, et.al. (2021) <sup>14</sup>	Undernutrition among under-five indigenous Mbororo children in the Foumban and Galim health districts of Cameroon: A cross-sectional study	Cross-sectional study (Cross-sectional study)	Involving 472 childcare pairs from 16 Mbororo Traditional Communities in the Foumban and Galim health areas	It was found that different socio-cultural characteristics, religion and language can influence the occurrence of stunting and wasting.
16	Reinbott A, , et al. (2018) <sup>15</sup>	Nutrition education linked to agricultural interventions improved child dietary diversity in rural Cambodia.	Cross-sectional	17,650 participants	It was found that nutrition education in the community must be carried out through the government and trained community members and involving peers as trainers.
17	Zaman S, et.al. (2018) <sup>27</sup>	Training in complementary feeding counselling of healthcare workers and its influence on maternal behaviours and child growth: a cluster-randomized controlled trial in Lahore.	Cluster-randomized controlled trial	375 mothers	It was found that nutrition education messages increased mothers' knowledge and children's nutritional care patterns
18	Goudet SM, Bogin BA, Madise NJ, Griffiths PL. (2019) <sup>28</sup>	Nutritional interventions for preventing stunting in children (birth to 59 months) living in urban slums in low- and middle-income countries (LMIC).	randomised controlled trials (RCTs)	Participants 9261 babies and children and 3664 pregnant women	It was found that educational interventions and nutritional counseling could reduce stunting.

## METHOD

This research uses a systematic review using the PRISMA method. There are 5 steps in this method, namely determining the literature topic, searching for sources, selecting relevant sources, grouping and analyzing, and summarizing published research articles on family social culture, eating behavior, intervention models and education for nutrition against stunting published between 2018 -2022 in online article databases PubMed, Proquest, Scopus, Google Scholar and Scencedirect. Data collection techniques include entering keywords in the database, keywords used: family social culture, intervention AND family environment, risk of stunting\*social demographics OR health education OR family empowerment OR maternal nutritional behavior OR family empowerment AND stunting. The next stage is screening. Screening consists of title, abstract, year of research, and methods used. Next, sort the articles according to the predetermined inclusion and exclusion criteria. The inclusion criteria in this study are: (1) Quantitative type of research with primary data; (2) Contains research results on socio-cultural factors that influence stunting in children; (3) the year the research was published in the last five years (2018-2022), (4) the sample used was children, (5) the text of the article was in English. Meanwhile, articles are not selected if there are exclusive criteria as follows (1) report articles, essays, theses, theses and dissertations; (2) research published before 2018; (3) The article is not fully tested.

After searching on the internet, 135 articles were found that were relevant to the research topic to be conducted. Of the 135 articles, they were then selected based on the title so that the number of selected articles was 46 articles. Then the researchers studied the abstracts of the 46 articles and found 18 relevant articles. From the 18 articles, the researcher then reviewed the overall contents of the articles. The article selection process can be seen in the diagram below:

## RESULTS

The research articles selected were quantitative research in the period 2018-2022, of which eighteen articles were included in the systematic literature review analysis relating to socio-cultural factors. These topics are family social culture, family environment, risk of stunting, social demographics, health education, maternal nutritional behavior, family empowerment. Details of the articles are presented in table 1.

## DISCUSSION

### Social and Cultural Families with Stunting

Social culture is an important factor that contributes to the problem of stunting in children<sup>13</sup>. Socio-cultural factors can include cultural aspects, values, beliefs, and social practices related to food, nutrition, health, and parenting patterns<sup>29</sup>. Several studies show that socio-cultural factors in the family can influence the risk of stunting in children.

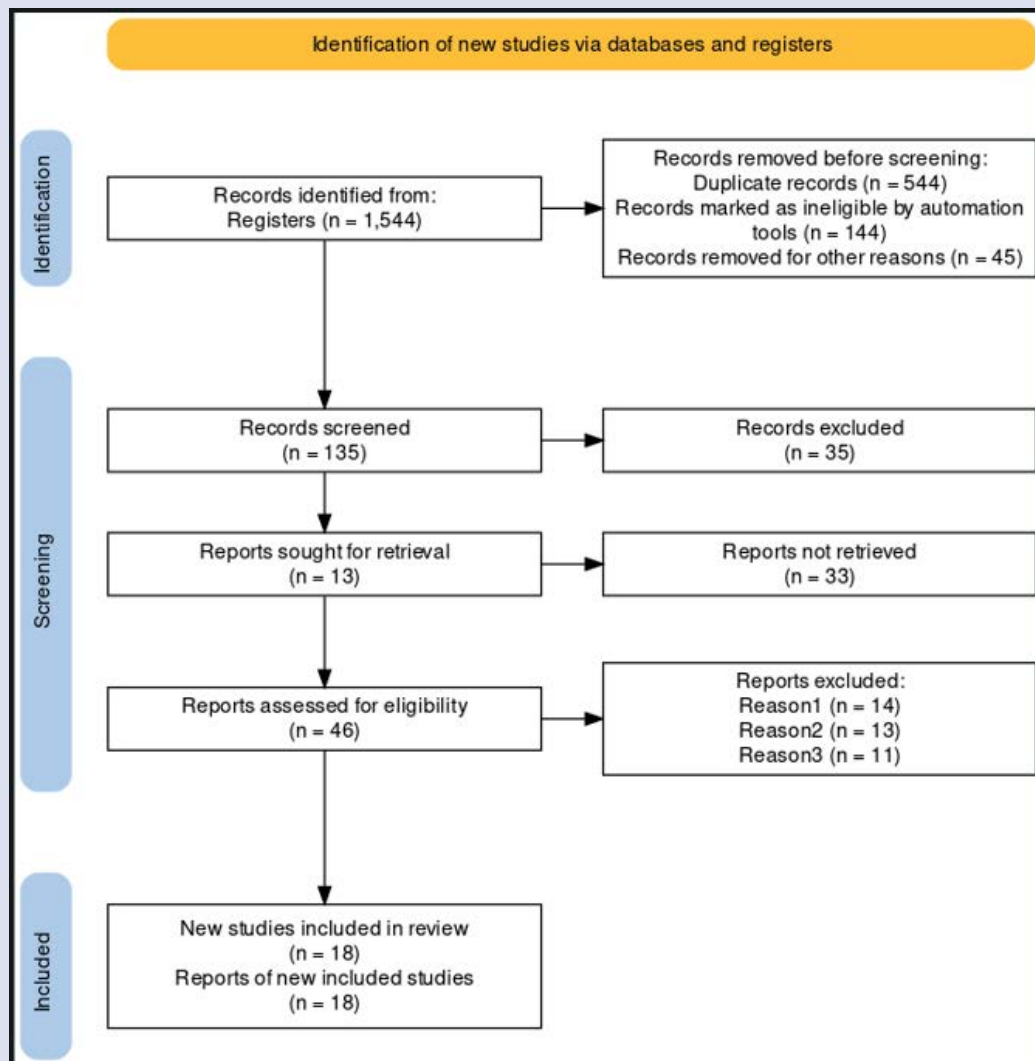


Figure 1. PRISMA Flow Diagram.

Several research results related to family social culture and stunting in children include: (1) Research in Indonesia shows that family socio-cultural factors such as socio-economic status, maternal education, feeding practices and parenting patterns influence the risk of stunting in children<sup>18</sup>. Families with low socioeconomic status, mothers who have low education, and inadequate feeding and parenting practices are at higher risk of having children with stunting<sup>30</sup>; (2) Research in Pakistan shows that family socio-cultural factors such as socio-economic status, feeding practices and parenting patterns influence the risk of stunting in children. Families with low socioeconomic status, inadequate feeding practices, and poor child rearing patterns are at higher risk of having children with stunting<sup>31</sup>; (3) Research in Ethiopia shows that family socio-cultural factors such as feeding practices and parenting patterns influence the risk of stunting in children<sup>32</sup>. Families that provide better food and support child stimulation have a lower risk of stunting<sup>25</sup>.

These studies show that family socio-cultural factors greatly influence the risk of stunting in children. Therefore, efforts to overcome stunting must pay attention to family socio-cultural factors and involve strategies that strengthen health practices and healthy parenting patterns as well as increasing family awareness about the importance of children's nutrition and health<sup>33</sup>. Apart from that, handling stunting also needs to involve families in efforts to prevent and treat stunting in children<sup>34</sup>.

Various ethnic groups and cultures have their own ways of choosing the type of food they consume, which has an impact on the nutritional status of pregnant women and is a causal factor *stunting*. Research findings show that the influence of the behavior of mothers who implement food restrictions during pregnancy has a 72 times higher risk of their child becoming pregnant *stunting* compared with mothers who did not implement dietary restrictions during pregnancy<sup>14</sup>, while only a few studies have attempted to obtain a comprehensive picture of socio-cultural and economic determinants. Likewise, there is a need to implement micronutrient and food supplementation programs for countries with the highest burden of malnutrition and stunting<sup>35</sup>.

### Family Environment Risk of Stunting

Family environment can be a risk factor for stunting in children<sup>36</sup>. The role of parents in preventing children has been proven effective in preventing malnutrition or the success of treatment or intervention. Parents provide a balanced nutritional intake. Family members participate in programs to promote balanced nutrition, changing eating behavior and activities that support children's success<sup>37</sup>. This condition is very complex, it is necessary to carry out research aimed at individuals and the environment in which they live. The home environment is very important because it can influence parenting in the growing period of adolescents with various general health and

psychosocial conditions, it has been found to increase the effectiveness of interventions, as well as promote overall family health and also mental health, and to reduce these problems, appropriate use of family planning, good dietary intake, maternal and paternal education, and WASH interventions are essential<sup>20</sup>.

Several family environmental factors can influence the risk of stunting in children: poor sanitation such as not having adequate toilets or no access to clean water can increase the risk of stunting in children<sup>38</sup>. This is because poor sanitation can cause infections which can affect children's growth and development, inadequate home conditions such as humidity, noise or temperature imbalances can also affect the risk of stunting in children<sup>39</sup>. Poor housing conditions can cause various health problems such as respiratory infections and sleep disorders which can affect children's growth and development, unbalanced eating patterns, such as lack of nutritional intake and poor eating habits, can cause malnutrition in children<sup>27</sup>. Malnutrition in children can affect children's growth and development so that it can cause stunting, exposure to toxic substances such as mercury, lead or pesticides can affect children's growth and development<sup>39</sup>. Exposure to toxic substances can cause damage to the child's nervous system and affect the growth of the child's cells and organs<sup>15</sup>. To reduce the risk of stunting in children, the family environment must be considered and improved. Families can improve home conditions, improve sanitation, improve the quality of food consumed, and minimize exposure to toxic substances. Apart from that, families can also increase awareness about the importance of a healthy lifestyle and good nutrition for children's growth and development<sup>40</sup>.

Implementing programs to improve parental behavior will not only serve to increase the frequency of modeling healthy behavior in the home, but parents who engage in healthy behavior will likely make modifications to their home environment, such as increasing the availability of healthy foods, that make it easier for children<sup>41</sup>. to make healthy choices. Childhood stunting in the first year of life was negatively associated with child development at 2 years of age among children in Vietnam, but high-quality housing. Early intervention aimed at enhancing early childhood growth as well as providing a stimulating home environment is essential to ensure optimal child development<sup>42</sup>.

However, although a number of significant associations were observed between family environment and adolescent children's behavior and stunting status, the family environmental factors assessed in this study only accounted for a small portion of the variation in adolescent children's behavior, suggesting that future research should examine the influence of both components. new factors from the family environment and factors outside the home on behavior related to the nutritional status of adolescent children<sup>13</sup>. Besides that maternal education impacts child health and medical care through maternal role interventions, empowerment and social and cultural capital<sup>21</sup>. A recent systematic review showed that interventions implemented cognitive behavioral therapy and household structure for parents and children and the inclusion of rewards from parents were associated with improvements in children's nutritional status<sup>7</sup>. Stunting is strongly associated with several long-term consequences, including higher rates of mortality and morbidity, less cognitive growth, school performance, learning capacity, work capacity and work productivity. Children experience stunting, where the 8-11 year age group are the most stunted children. The research results show that maternal or caregiver literacy has a high impact on children's health. Therefore, the Stunting diagnostic and education application was developed to educate mothers to diagnose stunting and teach about stunting prevention<sup>2</sup>.

### Social Demographics with Stunting

Socio-demographic research on stunting includes factors such as maternal age, maternal education level, family socio-economic status,

and place of residence<sup>43</sup>. Several studies show that socio-demographic factors can influence the risk of stunting in children, such as the mother's age can influence the risk of stunting in children<sup>44</sup>. Mothers who are too young or too old when giving birth to a child can increase the risk of stunting in children. Mothers who are too young or immature physically and psychologically may be less prepared to provide good care and treatment for their children<sup>2</sup>. While mothers who are too old may have a higher risk of experiencing pregnancy and childbirth complications which can affect the child's health, the mother's education level can also influence the risk of stunting in children. Mothers with less education may lack access to the information and knowledge needed to provide good care and treatment for their children<sup>15</sup>. In addition, mothers with lower education may also have less access to the resources needed to meet their children's nutritional and health needs, and the family's socio-economic status can also influence the risk of stunting in children. Families with lower socioeconomic status may lack access to the resources needed to meet their children's nutritional and health needs<sup>14</sup>. In addition, families with lower socio-economic status may also lack access to adequate health and sanitation facilities, where they live can also influence the risk of stunting in children. Children who live in rural or remote areas may have a higher risk of experiencing stunting due to lack of access to adequate health and sanitation facilities<sup>26</sup>. In addition, children who live in areas affected by natural disasters or conflict also have a higher risk of experiencing stunting due to lack of access to needed health resources and facilities<sup>45</sup>.

In order to reduce the risk of stunting in children, it is important for society to pay attention to socio-demographic factors such as maternal age, maternal education level, family socio-economic status and place of residence. Efforts that can be made include increasing access to adequate health resources and facilities, increasing knowledge and awareness about child nutrition and health, and increasing family and community involvement in efforts to prevent stunting. To prevent stunting, various measures have been taken in Pakistan but the results are not satisfactory. The study concluded that the prevalence of stunting was higher in men than women. Most stunted children live in rural areas. The literacy rate of mothers and fathers of stunted children is relatively low<sup>46</sup>. Large family sizes also affect children's health. Likewise, it was also found that different socio-cultural characteristics, religion and language can influence the occurrence of stunting and wasting and the rates of stunting, wasting and underweight vary according to the child's age<sup>14</sup>.

### Maternal Nutritional Behavior

A previous study conducted a systematic review of family and household-based interventions, from the results of this study it was concluded that more interventions need to be developed that target parents as the main agents of behavior change<sup>47</sup>. Parental knowledge and behavior factors are related to children's eating patterns. Parental factors are very important in determining children's nutritional behavior. Maternal self-efficacy in child feeding has been shown to be associated with higher child vegetable intake and reduced intake of non-staple foods<sup>48</sup>.

Research on the nutritional behavior of mothers with stunting includes factors such as the mother's diet during pregnancy, breastfeeding, giving additional food to babies, and hygiene and sanitation practices<sup>15</sup>. Several studies show that maternal nutritional behavioral factors can influence the risk of stunting in children, such as maternal diet during pregnancy is very important in influencing fetal growth and development<sup>49</sup>. Consuming healthy and nutritious food during pregnancy can help optimize fetal growth and reduce the risk of stunting in children. On the other hand, lack of nutritional intake during pregnancy can increase the risk of stunting in children<sup>27</sup>. Exclusive breastfeeding during the first six months of a baby's life can

help meet nutritional needs and improve the baby's immune system. Exclusive breastfeeding can also help prevent infections and diseases that can affect the baby's growth and development<sup>50</sup>. If breastfeeding is not provided or provided insufficiently, the risk of stunting in children can increase<sup>51</sup>. After the first six months, babies need additional food to meet more complex nutritional needs. Giving additional food to babies must be done at the right time and in the right amount according to the baby's nutritional needs. If supplementary feeding is not provided or is not provided at the right time and amount, the risk of stunting in children can increase<sup>52</sup>. Good hygiene and sanitation practices are essential in preventing infections and diseases that can affect a child's growth and development. A clean and healthy environment can help improve children's health and prevent the risk of stunting<sup>25</sup>.

In order to reduce the risk of stunting in children, it is important for mothers to pay attention to good nutritional behavior during pregnancy and after the birth of the baby, including consuming healthy and nutritious food, exclusive breastfeeding, giving babies additional food at the right time and in quantity, and hygiene practices. and good sanitation<sup>40</sup>. These efforts can be made by increasing mothers' knowledge and awareness about children's nutrition and health, as well as strengthening support from families and communities in efforts to prevent stunting. Interventions aimed at improving maternal and child diets must thus address the underlying social, cultural, and environmental determinants that contribute to motivation and opportunities to undertake recommended practices<sup>53</sup>. Mothers play an important role in supporting efforts to overcome nutritional problems, especially in terms of family nutritional intake, starting from food preparation, selecting food ingredients, to food menus. Mothers who have good nutritional status will give birth to well-nourished children. The family's ability to meet food needs, both in quantity and nutritional quality, greatly influences the nutritional status of children. Families with a relatively fixed income have a lower prevalence of underweight and a lower prevalence of stunting compared to families with an unstable income<sup>54</sup>.

### Health Education and Family Empowerment

The family, especially the mother, is the first person to shape a child's eating behavior. This is shown by choosing foods you like or don't like. Family attention to the food chosen and consumed by children plays a very important role in shaping children's eating patterns<sup>21</sup>. Children's stunting prevention and control behavior generally imitates the behavior of their families. They not only imitate this behavior, but will consider this behavior to be valued and seen as important for their family<sup>24</sup>.

Research on health education and empowering families with stunting focuses on efforts to increase family knowledge and awareness about child nutrition and health, as well as empowering families to take appropriate action to prevent stunting. Several studies show that health education and family empowerment can influence the risk of stunting in children, such as health education can help increase family knowledge and awareness about children's nutrition and health, as well as help identify appropriate actions to prevent stunting. Health education delivered through various media such as brochures, books and health education programs can help increase family knowledge and awareness about stunting and efforts to prevent it<sup>22</sup>. Family empowerment can help families take appropriate action to prevent stunting. Family empowerment can be done through training and skills development, social support, and family participation in health and nutrition programs. By being empowered, families can understand the importance of healthy eating patterns, good hygiene practices, and planning and preparing nutritious meals for their children<sup>25</sup>.

Mothers' knowledge about nutrition and children's health is an important factor in preventing stunting. Mothers who have good

knowledge about nutrition and children's health can prepare nutritious food and provide appropriate care for their children. Research shows that mothers who have good knowledge about nutrition and child health have a lower risk of stunting in their children<sup>51</sup>. In order to prevent stunting, health education and family empowerment can be carried out as an effort to increase family knowledge and awareness about children's nutrition and health, as well as empower families to take appropriate action. These efforts can be carried out through various media such as brochures, books, and health education programs, as well as training and skills development, social support, and family participation in health and nutrition programs<sup>23</sup>.

Various efforts to prevent stunting focus more on the dimensions of health, nutrition and nutritional intake<sup>44</sup>. Not much effort is focused on empowering women. In fact, it is women who play a greater role in caring for babies and toddlers. Several studies show that the problem of stunting is closely related to women. Women have a very strategic role in determining the incidence of stunting. For this reason, efforts to overcome stunting must begin and focus on the aspect of women's empowerment. Empowering women is very important not only for women but also reducing poverty, improving health and nutrition<sup>29</sup>. Social independence in women's empowerment is dominated by women's education level, access and processing of information. This shows that it is important to increase women's access to education and information so that they can make choices and decisions that influence their children's health outcomes in a positive way. Therefore, education is important to achieve the dual goals of empowering women and reducing the burden of disease in children<sup>32</sup>.

### CONCLUSION

Based on systematic research reviewing socio-cultural determinants of families with stunting, it can be concluded that family social and cultural factors play an important role in determining children's nutritional status. Several family socio-cultural determinants that contribute to stunting include education, employment, income, eating habits, feeding practices, as well as the social and cultural environment. Apart from that, the research results also show that these factors are interrelated and complex, so stunting management must be carried out holistically and multidisciplinary. So it is necessary to carry out more in-depth research to determine the determinants of stunting using a social and family cultural approach to be implemented.

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