



LITERATUR REVIEW: REVIEWING KADARZI BEHAVIOR TO REDUCE THE INCIDENCE OF STUNTING IN CHILDREN

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ABSTRACT	Keywords
Stunting is a chronic nutritional problem in children characterized by a shorter body size than children his age. Efforts to improve nutrition by the government to improve public health degrees through family-level health programs, one of which is through the nutrition-conscious family program (KADARZI). The method used is a literature review system contained in the database in the form of google scholar, sinta, and science direct as many as five articles that fit based on criteria with 2016-2021. Results from a literature review of five articles using a cross-sectional approach. The role of nutrition-conscious family behavior (KADARZI) to reduce the incidence of stunting in children is most effective if monitoring is carried out using anthropometric indicators (TB/U) and the application of nutrition-conscious family indicators (KADARZI). The better the application of nutrition-conscious family behavior (KADARZI) in the family, the better the nutritional status of toddlers, especially in providing optimal health protection through food consumed.	<i>Stunting, Behavior, Nutrition-Conscious Family</i>

INTRODUCTION

Nutritional problems increase the pain, death, and disability of toddlers and reduce the quality of human resources. Nutritional problems often encountered include malnutrition due to poor nutritional behavior, more nutrition, and stunting including stunting (Kementerian PPN/Bappenas, 2019). The nutritional problem that is the focus in developing countries is stunting or stunting. Stunting is a chronic nutritional problem caused by insufficient food intake over a long period due to inadequate diet. The occurrence of

stunting is characterized by a failed body condition in children due to chronic malnutrition, as a result of which the child is very short compared to children his age. This incident can occur while in the womb, but the condition can be seen when the age of 2 years (Kemenkes RI, 2018).

Stunting has a considerable impact both in the short and long term. The short-term effects of stunting are impaired brain development, body metabolism, intelligence, and physical growth. The long-term impact of bad conditions due to

stunting can reduce immunity, cognitive ability, and learning achievement in school and the high risk of various diseases such as obesity, diabetes mellitus, blood vessels, cancer, stroke, heart disease, and disability in old age. In this case, the role of the family is crucial in the provision of nutritious food. Families who understand the importance of nutrition for health and family nutrition awareness create an optimal nutritional status for all family members (Kementerian PPN/Bappenas, 2019).

According to *the World Health Organization* (WHO, 2017) stated that in 2017, 14% of toddlers in developing countries were *Underweight*. The national prevalence of nutritional problems in toddlers is 29.6% with stunting and 17.8% with toddlers in the *underweight* category or toddlers with malnutrition status or undernutrition (Riskesmas, 2018).

The standard of antropometry in children is based on weight and length / height parameters consisting of 4 (four) indexes, namely Weight according to Age (BB / U), Length / Height according to Age (PB / U or TB / U), Weight according to Length / Height (BB / PB or BB / TB), and Body Mass Index by Age (BMI / U) (Kemenkes, 2020).

Feeding problems still need attention, evidenced by high nutritional under-nutritional status in children under the age of 5 years (28%), vitamin A deficiency (50%) (serum vitamin A levels below 20 g/dL), iron-related anemia (50%) for various age groups and iodine deficiency disorders. Based on the total goiter rate (TGR) of 9.8%, the main reason for the prolonged decrease in prevalence is the low public awareness of nutrition improvement efforts (Septikasari, 2018).

Efforts to improve nutrition by the government to improve public health degrees through family-level health programs, one of which is through the nutrition-conscious family program (KADARZI). A nutrition-conscious family (KADARZI) is a family that follows a balanced diet, can identify health and nutrition problems for each family member, as well as take action to address nutritional issues in the family. Some of the indicators included in the KADARZI program are families doing regular weight checks, exclusive breast milk, eating a variety of foods, using salt containing iodine, and consuming recommended nutritional supplements (Kemenkes RI, 2007).

Based on the results of research Didik and Ekayanti (2011) showed a significant influence of household behavior on the nutritional status of toddlers in the TB/U index. One of the consequences of not achieving nutritional awareness is a delay in child growth. Therefore, public awareness, especially at the family level, is needed to apply the five indicators of a nutrition-conscious family properly and avoid stunting in children.

Health promotion related to KADARZI is part of advocacy and prevention activities at the health care level. As a step to realize the behavior of KADARZI in toddlers requires implementation support from several factors, namely the knowledge and attitude of each family member to the importance of nutrition, support of community leaders, facilities and mileage to health facilities, and the role of cadres in posyandu activities so that the nutritional needs of toddlers can be provided optimally.

The purpose of this *literature review* is to review various articles on the behavior of nutrition-conscious families (KADARZI) to reduce the incidence of stunting in children.

METHOD

The method in writing this article is a *literature review* by using journal references and articles related to nutritionally conscious family behavior (KADARZI) to reduce the incidence of stunting in children. Searches for scientific journals and articles are obtained through a database in the form of google scholar and *science direct* with a publication time range of 2012-2020, *open access*, and available *full text*. The purpose

of this *review literature* is to discuss related nutrition-conscious behavior (KADARZI) to reduce the incidence of stunting in children. The keywords used in searching for journals and articles are "Posyandu", "Nutrition Status of Toddler", "Stunting", "Nutrition Conscious Family Behavior", "KADARZI", "Nutrition Conscious Family". The article selected is an article that fits the criteria and obtained five articles that will be reviewed.

Table 1. Journal Screening Process

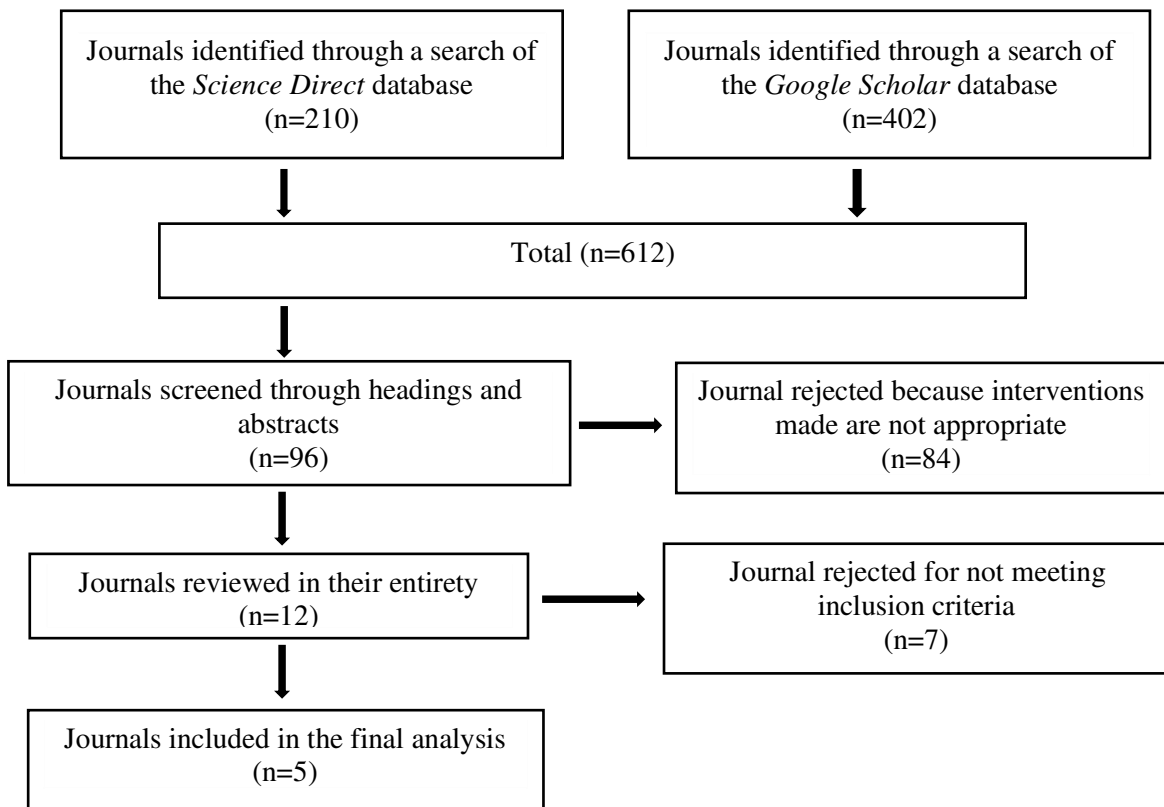


Table 2. Literature Search Results on Nutrition Conscious Behavior (KADARZI) To Reduce Stunting Incidence in Children

No	Writer	Year	Design & Sample	Heading	Result
1.	Agustina R, et al	2020	Quantitative <i>cross-sectional</i> approach and reinforced by qualitative methods. The sample of 92 respondents.	Nutritionally Conscious Family Behavioral Relationship with Toddler Stunting Events and Program Evaluation	The study results show that the consumption of various foods is associated with the incidence of stunting in toddlers and is the dominant factor. The results of interviews with mothers who have stunting toddlers said that parenting patterns are less noticed and result in weight loss or appear to be low in the value of the BB / U indicator, but also on the TB / U indicator.
2.	Wijayanti, S, et al	2017	Approach with <i>cross-sectional</i> and observational analytics. The sample of 72 respondents.	Relationship of Application of Kadarzi Behavior (Nutrition Conscious Family) with Toddler Nutrition Status in Tulungagung Regency	The results showed there was a behavioral relationship of KADARZI with the nutritional status of toddlers based on the indicator BB/U (p=0.010) and TB/U (p=0000) but no association with the BB/TB indicator (p=0.368).
3.	Alders, N	2016	<i>Cross-sectional approach</i> . Sampling was selected by <i>purposive sampling</i> and calculation with the Slovin method as many as 400 respondents.	Effect of Nutrition Conscious Family Behavior (KADARZI) on Toddler Nutrition Status	According to BB/U and TB/U indicators, the results showed that nutritionally conscious family behavior had a significant effect on the nutritional status of toddlers (p < 0.05). According to the BB/U indicator, the results of <i>Spearman</i> correlation tests showed that the intake of various foods had the most effect on toddlers' nutrition, according to BB / U indicator. In contrast, according to the TB / U indicator, the most influential was exclusive breastfeeding.
4.	Sriyanti, T, et al	2016	<i>Cross-sectional approach</i> . Sampling is selected by <i>cluster sampling</i> —the sample of 87 respondents.	Nutritional Conscious Family Relationship (KADARZI) With Nutritional Status in Children Aged 0-24 Months in the Working Area of Singotrunan Banyuwangi Health Center	The results showed a link between a nutrition-conscious family (KADARZI) and nutritional status in children aged 0-24 months based on bb/u and TB/u indicators.
5.	Bertalina	2012	<i>Cross-sectional approach</i> . The sample of 211 respondents.	Nutritional Conscious Family Behavioral Relationship with Nutritional Status of Toddlers in Gedong Tataan District of Pesawaran Regency	The results showed a meaningful relationship between nutrition-conscious family behavior and toddler nutritional status (TB/U) and no meaningful relationship between nutrition-conscious family behavior and toddler nutrition status (BB/TB).

RESULTS AND DISCUSSION

Based on five articles shown that all use a *cross-sectional* approach method. The sample used was a family that had children aged 0-59 months. The research site of the article is tailored to the location of each.

The results of the analysis in the first article that the consumption of various foods is the dominant factor related to the nutritional status of children, especially in the event of stunting. Based on the results of interviews with mothers who have children

with stunting, poor parenting patterns can result in weight loss or appear to be low values of BB/U indicators and result in TB/U indicators (Agustina et al., 2020).

Based on the results of the analysis of the second article, the better the nutritional status of children based on BB/U and TB/U indicators can be done by applying KADARZI behavior. Thus, KADARZI behavior can prevent children from nutritional problems, especially stunting. The results of studies show a relationship

between the behavior of KADARZI and the nutritional status of Toddlers BB/U ($p=0.010$) and TB/U ($p=0,000$). Still, there is no relationship with BB/TB ($p = 0.368$) (Wijayanti & Nindya, 2017).

The results of the analysis of the third article showed that, according to BB/U and TB/U indicators, the behavior of nutrition-conscious families had a significant effect on the nutritional status of toddlers ($p<0.05$). The results of *Spearman* correlation tests showed that the intake of various foods had the most influence on the nutritional status of toddlers, according to the BB/U index. According to the TB/U index, the most evident indicator of KADARZI in toddler nutrition is exclusive breastfeeding, and the five indicators of KADARZI each show a meaningful relationship with the nutritional status of toddlers (Arini & Syafei, 2016).

From the results of the analysis of the fourth article that families who have nutritional awareness can help the child's nutritional status optimally; conversely, if awareness about nutrition is not good, then the child's nutritional status will not be good. This is in line with a study of 87 respondents, with 57 respondents (65%) not behaving KADARZI and 47 respondents (54%) having an average weight. The results of the *Chi-Square* statistical test calculation using SPSS obtained a value of $p=0.007$, which means there is a rejection of H_0 , meaning there is a relationship between a nutrition-conscious family (KADARZI) and nutritional status in children (Sriyanti et al., 2016).

The results of the analysis of the fifth article show a meaningful relationship between the behavior of the nutrition-conscious family and the nutritional status of the child based on indicators (TB/U). There is no significant relationship between the behavior of the nutrition-conscious family

and the child's nutritional status based on the indicator (BB/TB). This is based on the results of research that shows that 64.9% of families are nutritionally conscious families and nutritional status of toddlers based on TB/U as much as 41.7% have short nutritional status. Toddler nutritional status based on BB/TB 5.7% has thin nutritional status (Bertalina, 2012).

The analysis of the five articles above shows that the role of nutrition-conscious family behavior (KADARZI) to reduce the incidence of stunting in children is most effective if monitoring is carried out using anthropometric indicators TB/U and the application of nutrition-conscious family indicators (KADARZI). Nutritional status based on the TB/U index with the terms *stunted* (short) and *severely stunted* (very short) can describe nutritional fulfillment especially related to low weight and malnutrition in children (Apriyanti W, 2018).

Based on nutritional status with nutrition-conscious family indicators (KADARZI) if a family can recognize, prevent and overcome the nutritional problems of each member of his family. The indicator consists of weighing weight regularly, providing exclusive breast milk, eating a variety, using iodized salt, and taking nutritional supplements as recommended (Kemenkes RI, 2007).

CONCLUSIONS

The better the application of nutrition-conscious family behavior (KADARZI) in the family, the better the nutritional status of toddlers. The most effective monitoring of nutritional problems, especially stunting, can be done with TB/U indicators. The interventions and efforts to overcome nutritional issues, especially stunting, the role of family with parenting and apply nutritional conscious family behavior

(KADARZI), thus providing optimal health protection in terms of health through food consumed, families can independently achieve the best nutritional status reflected in the pattern of offering a variety of foods and nutritious foods balanced.

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