



The Relationship Between Healthy Eating and Early Childhood Growth and Development

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ABSTRACT

This study aims to determine the relationship between healthy eating patterns and the growth and development of early childhood. A healthy diet is a crucial factor in supporting physical growth and cognitive, motor, and social development in early childhood. The research method used is a literature review by analyzing books, journals, and other relevant references. Data were analyzed by relating the findings to child development theories and balanced nutrition principles. The results show that balanced intake of macro and micronutrients significantly affects height and weight growth, brain development, and children's immune systems. Implementing a healthy diet from an early age can prevent growth disorders such as stunting and improve children's quality of life.

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INTRODUCTION

Early childhood is called the "golden age". This is a critical period where children need the right stimulus. Thus, the right container is needed to help the growth and development of the child. According to the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System in article 1 paragraph 14 it reads, "Early childhood education is a coaching effort aimed at children from birth to the age of six years which is carried out through the provision of educational stimuli to help physical and spiritual growth and development so that children have readiness to enter further education".

Childhood is a time when children are not able to develop the potential that exists in them. They tend to enjoy playing at the same time, want to win on their own and often change the rules of the game for their own benefit. Thus, educational efforts are needed to achieve the optimization of all aspects of development, both physical development and psychological development. Children's potential is very important to be developed. These potentials include cognitive, language, socio-emotional, physical abilities and so on.

One of the goals of early childhood education is to make children who can grow and develop according to their level of development so that children can grow optimally and can prepare themselves to enter basic education or the next level. Early childhood experiences a sensitive period to grow and develop quickly and greatly. The development of every child is not the same because each individual has a different development. Nutritious and balanced food and intensive stimulation are needed for such growth and development. If children are given intensive stimulation from their environment, they will be able to carry out their developmental tasks well.

Early childhood growth and physical development is also a crucial phase in life, which is greatly influenced by various factors, one of which is diet. A healthy diet, which is rich in essential nutrients, plays a significant role in supporting brain development, physical growth, and overall health. At an early age, children need a variety of nutrients, such as protein, carbohydrates, fats, vitamins, and minerals, to reach their maximum potential.

The period of growth and development includes two distinct but mutually continuous aspects. Growth has an impact on the aspect of physical growth, while development is related to the maturity of organ function. During this time, the brain can develop rapidly both structurally and functionally. (Uce, 2018)

Rivanica states that growth is related to changes in the size, number, size or dimension of cells, organs or individuals, which can be measured by weight, length, bone age and metabolic balance.

According to dr. Soedjatmiko in order for the growth and development process to run optimally, a child must get the fulfillment of early nutrition from 3 basic needs, namely: The first is physical-biological needs, in the form of the need for nutrients and additional vitamins, as well as physical and environmental hygiene. The second is emotional needs in the form of affection, a sense of security and comfort, being appreciated, cared for, and hearing their desires and opinions. This need has a very big role in children's independence and emotional intelligence. "Therefore, increase the amount of love and joy for children," explained dr. The third Soedjatmiko that is no less important is the need for stimulation which includes play activities to stimulate all the senses, hone fine and gross motors, practice communication skills, independence, thinking and creativity. This stimulation must be given from an early age because it has a great influence on the variety of intelligences or multiple intelligences (Uce, 2018)

Diet is a way of feeding that is seen from the type of food, meal time and nutritional content. During the period of growth and development, babies and toddlers must get all the nutrients that their bodies need. So the diet provided must be in the form of a balanced menu and must meet the required nutritional standards. The diet of one child varies from one child to another, and it depends on how the parents manage their child's food. Therefore, parents must be creative in making a variety of dish menus. Both the selection of ingredients, processing techniques and serving so that children do not become bored and interested in eating. In compiling the menu, parents must always be based on a balanced menu pattern. As a guideline, in one day, children must consume foods that contain vegetable protein, animal protein, fat, carbohydrates, vitamins, minerals, fiber and enough water (Lucia, 2019)

In providing healthy food, parents play a very important role in children's health. Children's health is very influential in children's growth and development, because children's growth and development are seen from the food that children consume. Food health is seen from the balance of food and fulfills the principle of "4 healthy 5 perfect", (rice, side dishes, vegetables, fruits and milk). But children's growth and development are not only seen from the balance of food, because by exercising, resting, living regularly, and free from air, food and water pollution, the growth and development of children will be healthier (Novitasari et al., 2012)

According to Almastsier, diet is an effort to regulate the amount and type of food with an overview of information including maintaining health, nutritional status, preventing or helping the cure of disease and consumption of nutrients is a factor that directly affects nutritional status. According to several nursing experts, including Paplau H, health is a process that takes place leading to creativity, constructive, and productive. (Widjayatri et al., 2020)

Diet in early childhood plays a very important role in the growth process in early childhood, because food contains a lot of nutrients. Forming healthy behavior in children starts from an early age. This is because early age is a golden age. The Golden Age is a period where the stage of brain development in early childhood occupies the most vital position, reaching 80% of brain development. Healthy conditions can be achieved by turning unhealthy behaviors into healthy ones and creating a healthy and clean environment.

A balanced diet not only meets energy needs, but also provides essential raw materials for the development of brain and body tissues. Adequate protein consumption, for example, is vital for muscle and tissue growth. Meanwhile, carbohydrates serve as the main source of energy that supports children's daily activities. Healthy fats, especially omega-3 fatty acids, have an important role in brain development and cognitive function. In addition, vitamins and minerals such as iron, calcium, and vitamin D are indispensable to support bone growth and the immune system.

However, the challenges often faced are the lack of knowledge about the importance of a healthy diet, as well as the influence of the environment and poor eating habits. Therefore, there needs to be a broader educational effort to increase awareness about good nutrition, so that children can grow and develop optimally. By understanding the importance of a nutrient-rich diet, it is hoped that we can encourage the creation of a healthy and productive generation.

Around the world every year there are tens of millions of babies who experience the stage of growth and development from infancy to adulthood and nearly 10 million children die before the age of 5 and more than 200 million children do not reach their optimal developmental potential. The incidence rate in the United States ranges from 12-16% and in Indonesia around 13-18%. (Uce, 2018)

The WHO says that there are 328 million people with cases of malnutrition. Where about 17% are found in developing countries. Malnutrition is a condition in which a person experiences a nutritional incompatibility with daily needs. Malnutrition here can be due to deficiencies, excesses, or unbalanced nutrition so that it will result in a bad impact on the body. Therefore, the rules of a good and correct diet must be applied to children from an early age, considering that in this phase the growth and development of children will affect their quality of life in the future. (Fitriani & Adawiyah, 2018)

The high number of malnutrition cases in Indonesia shows that early childhood in the habit of consuming foods containing balanced nutrition still needs family or environmental support. Based on the results of Indonesian Basic Health research in 2018, it shows that malnutrition and undernutrition status in

toddlers with a Weight by Age Index (BB/U) with a percentage of 3.9% and 13.8%. Meanwhile, the nutritional status is very short and short in toddlers with a Height Index by Age (TB/U) of 11.5% and 19.3%. The nutritional status is very thin and thin in toddlers with a Weight Index by Height (BB/TB) which is 3.5% and 6.7% (Ministry of Health of the Republic of Indonesia, 2011). In addition to the factor of lack of fulfillment of balanced nutritional consumption in early childhood, there are other factors, namely decreased appetite caused by a disease and children being bored with the food eaten.(Amalia & Nurfadilah, 2021)

Nutritious food is not always expensive, but it must be healthy and nutritious that also contains various substances that are beneficial to our body, such as carbohydrates and proteins, which will be broken down by the body into energy sources. The need for nutrients can be observed from the categories of meals provided as well as nutrients such as macro and micro nutrients. Macronutrients can be observed from several categories of meals that have carbohydrates, fats and proteins while micronutrients can be observed from meals that have vitamins, minerals and fiber.(Robiah & Kurniawaty, 2022)

Table 1. Macro and micro nutrition

Yes	Nutrition	Types of Nutrition	Examples of Nutritious Food Ingredients
1.	Macro	Carbohydrates	Sweet Potato, Corn, Wheat
		Fat	Milk,soy milk,egg yolk, fish oil,butter
		Protein	Nuts, chicken eggs, meat, beef
2.	Micro	Vitamin	Egg yolks, beef liver, chicken liver, carrots, various green vegetables such as mustard greens, kale, katuk leaves, broccoli, and spinach, corn, bananas, oranges, watermelons, potatoes, red sweet potatoes, butter, cheese, milk.
		Mineral	Potatoes, cassava, soybeans, mung beans, kidney beans, peanuts, such as fruits (bananas, avocados, guavas, papaya, mangoes, durians, grapes, oranges, pineapples, watermelons) cheese, yogurt, dried shrimp, fresh cow's milk, fish, beef, chicken, tofu, green vegetables (mustard greens, spinach, katuk leaves, cassava leaves), corn, coconut sugar, white bread, biscuits, duck eggs, chicken eggs

Therefore, poor food intake can affect prenatal development starting from the beginning of pregnancy and throughout the age of the child. A small child who is underweight, stunted describes a malnourished state that lasts for a long time and will take a long time to recover. While a child who is wasting describes a state of malnutrition that does not go well in a short time, this condition will recover quickly.

Based on various studies, a balanced nutritional intake during the growth period can increase immunity and prevent various diseases. On the other hand, a poor diet risks leading to health problems, such as stunting, obesity, and other developmental disorders. Therefore, it is important to understand how a healthy diet can support a child's growth and development.

RESEARCH METHODS

This research uses a qualitative approach with a literature review method. Data was collected through the analysis of documents, scientific journals, and books relevant to the topics of healthy eating and early childhood development. The literature selection criteria include the relevance of the topic, the publication of the last ten years, and the suitability of the content with the research objectives. Data analysis was carried out with a descriptive-comparative approach, linking theories and findings of previous research to conclude the impact of diet on early childhood growth and development.

RESULTS AND DISCUSSION

Eating habits in humans are very important because these habits can meet the needs of human life such as: attitude, and confidence in choosing food. Eating habits are usually in the form of what, by whom, for whom, when and how food is ready on the table to be eaten or eaten. The importance of healthy eating habits can start from an early age.(A., 2016)

According to (Harlistyarintica & Fauziah, 2020) The habit of consuming healthy and nutritious food at an early age is very important to do in developing children's development, both cognitive and physical, which has a health impact at a later age. For this reason, parents and educators have an extraordinary contribution in regulating early childhood habits so that it is necessary to pay attention to and apply nutritious healthy food to meet their growth and development.

Proper nutrition helps improve concentration, memory, and physical growth. By introducing a healthy diet from an early age, children will be more likely to develop good habits that have a positive impact in the

future. Good nutritional intake, such as vitamins, minerals, and protein, is essential to support brain function and the growth of a child's body. If children are accustomed to eating healthy foods from an early age, they are more likely to continue to choose nutritious foods as adults, which can help maintain their overall health and performance. This forms a solid foundation for good long-term development.

In addition, Anzman-Frasca et al., (2018) in today's modern environment, good food such as ready-to-eat food can encourage unhealthy eating habits, along with the human tendency to accept sweetness and reject sour and bitter tastes so that children will be picky about food. This is in line with Bandini et al., (2017) as for the level of problems that occur in early childhood diet, namely food selectivity or what is called food pickiness which has a negative impact on inadequate nutritional adequacy. Wiseman et al., (2016) argue that the development of eating behavior or eating patterns in early childhood is influenced by various factors of the child and a person's behavior which is the result of interaction between the individual and the environment. It can be interpreted that a child's diet is shaped by the interaction between individual factors and various systems within the environment such as parental parenting and early childhood education (Chen et al., 2018). These interactions can be an opportunity for intervention in providing a healthy and nutritious diet. (Lucia, 2019)

Devine et al., (2019) argue that early childhood education (PAUD) is one of the places that can help optimize the provision of nutritious food by providing examples of positive health behaviors and providing nutrition education to children. However, based on the results of research by Alberdi et al., (2016) and Cassar, (2022), a healthy food environment is often not offered or promoted so that the quality of PAUD standards is not good, does not promote healthy food, and lacks physical activity. The results of a study of 12 literature reviews with 101 studies conducted by Matwiejczyk et al., (2018) and Goldsborough et al., (2016) show that a healthy food approach that needs to be applied is early childhood education services in children aged 2-5 years to improve healthy eating. The results of a study conducted by López-Banet et al., (2022) learning healthy food to prevent unhealthy food for 4-5 year olds is by providing activities that develop children's interest in science and begin to develop food competence in the early years. To develop this by expressing ideas about fruits, vegetables, and nuts to develop and learn new information through child-focused activities. Children are able to practice and talk about science related to healthy food.

Healthy and nutritious food patterns delivered to optimize children's growth and development. According to Tuti Soenardi (2002:5) "Healthy food achieves a good and optimal nutritional status" Healthy feeding aims to improve the nutritional condition of nutritionally vulnerable children who suffer from malnutrition, and is given with the criteria of children under five who do not increase their scales three times in a row and whose weight is below the red line.

Healthy and nutritious food delivered to optimize children's growth and development. It is very important to provide healthy food to early childhood for the benefits of a healthy feeding program for children after an early age, namely forming good and healthy food habits, increasing spiritual intelligence by reading prayers before and after meals, children can share food with friends, foster a sense of responsibility, children are able to clean up their own meals, train children's motor skills, Getting to know healthy and unhealthy foods (Ministry of Education and Culture, 2012)

At an early age, this is the right time to start instilling good habits to train children in implementing and choosing healthy food and drink. The environment greatly influences how healthy food refraction in children is so the role of parents and teachers is very important to provide healthy and nutritious food (Nekitsing et al., 2018)

The environment greatly affects because the environment is where children eat, the time and atmosphere when children eat, the way of feeding is done in a fun way with various kinds of menus, motivates children to try and choose new food menus with the aim of increasing children's awareness to eat nutritious, serving food according to the age of the child so that balanced nutrition is fulfilled (Jatmikowati et al., 2023)

Therefore, the period of growth and development is an important period in forming a healthy diet, which has an impact on the health and quality of life of children until adulthood. Children whose notabene is still in the growth period, must need good nutritional nutrition to support their growth and development. Based on the results and discussion of the research, it can be concluded that healthy eating patterns are related to the growth and physical development of early childhood. The better the child's healthy eating pattern, the better the child's growth and physical development.

CONCLUSION

A healthy diet plays an important role in supporting early childhood growth and development. The right nutrition can help increase weight and height ideally, strengthen the immune system, and support brain development and cognitive function. The implementation of a healthy diet from an early age must be supported by proper education, the involvement of parents and teachers, and the provision of a healthy and conducive environment. This joint effort will create a healthy, intelligent, and productive generation.

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