



The Impact of Nutrition Education on Healthy Eating Habits Among Adolescents

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ABSTRACT

Nutrition is an essential component of human growth, especially in adolescents. Therefore, eating healthy food is very important for teenagers. But unfortunately, not all teenagers understand which food is healthy or not. Therefore, there is a need for good nutrition education for adolescents. This research was conducted to see how the influence of nutrition education on healthy eating habits for adolescents. This research will be performed using a qualitative approach. The data used in this study comes from the results of previous research and studies which still have relevance to the contents of this research. The results of this study then found that a lack of nutritional supply can cause various diseases for the health of adolescents. Therefore, nutrition education needs to be given to adolescents properly. Knowledge of the nutritional content of food can then change adolescents' diets in a healthy direction.

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Kata kunci:

Edukasi Gizi
Pola Makan Sehat
Remaja

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ABSTRAK

Gizi merupakan komponen penting dalam pertumbuhan manusia, terutama pada remaja. Oleh karena itu, mengonsumsi makanan sehat sangat penting bagi remaja. Namun sayangnya, tidak semua remaja paham mana makanan yang sehat atau tidak. Oleh karena itu perlu adanya pendidikan gizi yang baik bagi remaja. Penelitian ini dilakukan untuk melihat bagaimana pengaruh pendidikan gizi terhadap kebiasaan makan sehat pada remaja. Penelitian ini akan dilakukan dengan menggunakan pendekatan kualitatif. Data yang digunakan dalam penelitian ini berasal dari hasil penelitian sebelumnya dan penelitian yang masih memiliki relevansi dengan isi penelitian ini. Hasil penelitian ini kemudian menemukan bahwa kurangnya suplai gizi dapat menyebabkan berbagai penyakit bagi kesehatan remaja. Oleh karena itu, pendidikan gizi perlu diberikan kepada remaja dengan baik. Pengetahuan tentang kandungan gizi makanan kemudian dapat mengubah pola makan remaja ke arah yang sehat.

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INTRODUCTION

Indonesia is a developing country in several developments. In its development, Indonesia has several development programs, one of which is developed in the Health Sector, which is directed at increasing public health status and improving the quality and ease of service for all levels of society. Efforts to improve the quality of Human Resources (HR) are very influential in the development of a nation through educational programs (Fadhlorrohman et al., 2020).

Education is the main goal in the development of Indonesian human being to produce developed human beings who can develop themselves and are jointly responsible for the nation's development both individually and as citizens, following the National Education Goals listed in RI Law No. 20 of 2003. Improving the quality of Human Resources (HR) cannot be separated from the participation of students (Hidayat et al., 2022). Students, especially at the age of adolescents, should pay more attention. Along with the increase in the adolescent population in Indonesia, adolescent nutritional problems need special attention because they affect the growth and development of the body and impact adult nutritional problems (Kaligis et al., 2021).

Adolescence, namely 10-18 years, is an extraordinary growth and development physiologically, psychologically, and socially. Then adolescence is a period of nutritional vulnerability due to various reasons. First, adolescents need higher nutrition because of the dramatic increase in physical growth and development. Second, adolescents' lifestyles and eating habits affect their nutritional intake and needs. Third, adolescents with special nutritional needs, namely those active in sports, suffer from chronic diseases, are pregnant, do excessive dieting, and are alcoholics or drug addicts (Akbar et al., 2022).

Adolescence is a necessary period in which biological, social, and cognitive changes take place. Adolescents have unique nutritional needs because they have rapid growth (body mass, fat mass, bone mineralization) and the changes in maturity associated with puberty. The nutrition survey showed that many adolescents do not meet the appropriate dietary recommendations for their age group and have dietary intakes lacking in calcium, iron, riboflavin, vitamin A and vitamin C, and some adolescents have problems with excess diet and obesity (Foulkes & Blakemore, 2021).

The development from a child to an adult must go through adolescence. In this phase, a person's physique and social and psychological aspects continue to develop. These changes make a teenager experience a variety of lifestyles and behaviors, including experience in determining what food to consume. This last thing will affect the nutritional state of a teenager when he enters the independence stage (Classsen-van der Grinten et al., 2021). Teenagers can choose whatever food they like, and they don't even have an appetite anymore to eat with their family at home. Activities mostly carried out outside the house make a teenager often influenced by his peers. Food selection is no longer based on nutritional content but on socializing for fun so as not to lose status (Ares et al., 2022).

According to WHO, about one-fifth of the world's population are adolescents aged 10-19. Excessive fondness for certain foods causes nutritional needs not to be met. This situation is related to the "fashion" currently rife among teenagers, such as the habit of eating fast and ready-to-eat food. Adolescence is an age that is very easily influenced by friends and the mass media, especially advertisements that attract the attention of teenagers about new foods and

affordable prices (Hollis et al., 2020). Lifestyle changes in adolescents influence the choice of food to eat, they also often try new foods, one of which is fast food. Teenagers are also not fully mature physically, cognitively, and psychosocially. In this stage of searching for identity, adolescents are quickly influenced by the surrounding environment, especially by the currents of western culture, which are still too difficult to contain, including the influence on food consumption patterns (Beck et al., 2019).

Many factors make teenagers prefer to consume fast food, including the busyness of parents, especially mothers who do not have time to prepare food at home, so teenagers prefer to buy food outside (fast food), the social environment, and economic conditions that support the amount of teenage pocket money. In addition, the preparation of fast food that is fast and practically does not take long, tastes good, according to taste, and frequent consumption of fast food can increase adolescents' social status, increase their prestige, and not be left behind by globality. But if the habit of consuming fast food is continuously carried out, it will be a mistake in choosing food. Errors in choosing food due to insufficient knowledge about nutrition will result in health problems (El-Ammari et al., 2020).

Nutritional knowledge has an essential role in forming a person's eating habits because this will affect a person in choosing the type and amount of food consumed. The level of one's nutritional knowledge influences attitudes and behavior in choosing food, ultimately affecting one's nutritional state. Nutritional adequacy needs to be considered in adolescent nutrition or must fulfill balanced nutrition. Generally, students are not only busy with school activities but also participate in extracurricular activities. For the stamina of these students to be maintained, it needs to be supported with food that has adequate/balanced nutrition (de Vries et al., 2019).

This eating habit turns out to be a new problem because ready-to-eat food generally contains high levels of fat, carbohydrates, and salt but little water-soluble vitamins and fiber. Excessive consumption of this type of food will lead to problems of excess nutrition, a risk factor for several degenerative diseases, which are currently the number one cause of death (Kumar & Pandey, 2020). To get optimal body health, it is necessary to know the quality of the excellent food composition and the amount of food that should be eaten/consumed. Eating habits affect a person's nutritional status and health, especially adolescents who need adequate nutrition in their development (Winpenny et al., 2021).

Based on the brief discussion above, the researcher wants to see how nutrition education impacts healthy eating habits among adolescents.

LITERATURE REVIEW

Nutrition Education

Knowledge of nutrition is a person's ability to recall the nutritional content of food and the use of these nutrients in the body. The level of one's nutritional knowledge influences attitudes and behavior in choosing food, ultimately affecting one's condition. The higher the level of one's nutritional knowledge, the better the nutritional state (de Queiroz et al., 2022).

Knowledge about nutrition that the community must possess includes the needs of the body (carbohydrates, protein, fat, vitamins, and minerals). In addition, the types of daily food that contain the nutrients the body needs, both

qualitatively and quantitatively, are due to or diseases caused by malnutrition (Kumar et al., 2021).

Nutritional knowledge is essential in forming one's eating habits because this will influence one's choice of type and amount of food consumed. One thing that is convincing about the importance of nutritional knowledge is based on three facts, namely: 1) Adequate nutritional status is essential for health and well-being; 2) Everyone will only have enough nutrition if the food he eats can provide the nutrients needed for optimal body growth, maintenance, and energy; and 3) The science of nutrition provides necessary facts so that people can learn to use food properly for nutritional well-being (Chakona & Shackleton, 2019).

According to Khomsan, individuals with good knowledge can apply their nutritional knowledge in food selection and processing so that food consumption meets their needs. Williams stated that malnutrition causes insufficient knowledge of nutrition and a lack of understanding about good eating habits. In their teens, there is often an inaccurate understanding of the nutritional contribution of various foods. Because of this, nutritional diseases arise, which harm intelligence and productivity (Pawera et al., 2020).

Pranadji revealed that nutrition knowledge could be obtained through formal and informal education. Education in question is a process carried out consciously, continuously, systematically, and directed, which encourages changes in every individual. Soewendo & Sadli said that the level of maternal nutrition knowledge is closely related to the level of formal education of the mother. The higher the level of formal education of the mother, the broader her thinking perspective will be so that more information on nutrients can be absorbed (Ngadi et al., 2023).

Healthy Eating Habits

Diet is a way to regulate the type or amount of food following the proportions of the body's needs to maintain health, nutritional needs and prevent disease. The definition of diet, according to Handajani, is the action or behavior of individuals in meeting their food needs, including attitudes, beliefs, and the food chosen. Meanwhile, according to Suhardjo, eating patterns are an individual way of determining or consuming food with psychological, physiological, cultural, and social impacts (Haque et al., 2020).

Diet can also be defined as the characteristics or characteristics of individual eating activities that are carried out repeatedly to meet the needs of the body. Nutritional adequacy figures such as carbohydrates, fats, proteins, or minerals must be considered to maintain a healthy diet. In addition, the frequency and amount of food also need to be considered so that the digestive tract can work optimally (Haines et al., 2019).

Eating patterns generally have 3 (three) components: type, frequency, and amount of food.

a) Feeding type

Types of food are the kinds of food consumed every day. Types of food consist of staple foods, animal side dishes, vegetable side dishes, and fruit. In Indonesia, staple foods or main foods consumed to fulfill carbohydrates for each person or individual are rice, corn, tubers, sago, and flour (Kono et al., 2021).

b) Meal frequency

The frequency of eating is the number of times an individual eats, whether in the morning, afternoon, evening,

or snack. According to Oetoro, meal frequency is the number of meals a day. In a natural process, the food consumed by humans will be processed in the body through the digestive system (Chamorro et al., 2022).

c) Number of meals

The amount of food is the number of servings consumed by each individual or group. The amount and type of daily food are how an individual eats consuming foods containing nutritional intake. The excellent frequency of eating is three times a day with snacks in the morning or afternoon, if the pattern of eating is made excessively, it will cause obesity which makes the body unhealthy (Bleiweiss-Sande et al., 2019).

Healthy food has a portion that must follow the size that the body will consume. Individuals who have ideal body weight do not need to reduce or increase their food portions just by consuming healthy foods according to their portions. If an individual is overweight, the portion of healthy food consumed must be reduced (Serra-Majem et al., 2020).

A healthy diet must contain carbohydrates, protein, vitamins, fats, and oils according to the body's needs. In addition, the recommended diet is three times a day. In addition, snack foods are also needed and consumed in the morning and afternoon when the leading food is insufficient. Even though it is required, too much snack food should not be consumed because it can interfere with decreased appetite when consuming the main meal (Huhmann, 2020).

METHOD

This research will be carried out using a qualitative approach. Data analysis will be carried out using a descriptive method. The data used in this study were obtained through a literature study of mixed results of previous studies and studies still relevant to the study's contents. The research data that the researcher successfully collected will then be processed immediately so that the results of the research can then be found.

RESULTS AND DISCUSSION

The Importance of Healthy Eating Habits for Teenagers

Adolescents are a significant segment of society that needs more attention from the point of view of changes in food consumption. Besides being still in the process of growing and introducing the environment and themselves, they are also vulnerable to the influence of modern food and drinks such as burgers, hot dogs, spaghetti, ice cream, and others. Sooner or later, these everyday foods are expected to shift the role of local/traditional foods teenagers commonly consume if no specific efforts are made to prevent this.

Apart from eating healthy food, meal times are essential to implementing a healthy diet. Reducing meal times can cause the consumption of nutrients in adolescents to become unbalanced. Thus the presence of some adolescents who do not have regular meal times can in itself create an imbalance in their consumption of nutrients, which in turn will have implications for the nutritional status of the adolescents concerned.

The arrangement of breakfast, lunch, and dinner dishes among adolescents, which is not always a complete set of

dishes consisting of rice, side dishes, vegetables, and fruit, can lead to an unbalanced consumption of nutrients. The balance of nutrient consumption will still be achieved within one day of consuming complete food, such as the arrangement of 4 healthy, five perfect dishes.

For cases of eating disorders in adolescents, the British Medical Association suggests that the image of thin and slender women portrayed by the mass media encourages adolescents to adopt unhealthy eating patterns. When a teenager becomes very thin, physical symptoms can include sensitivity to colds, constipation, weakness, swelling of the legs, and growth of fine body hair. The risk of death occurs 5-18% in people who suffer from anorexia nervosa. In some rare cases, bulimia can cause death due to electrolyte imbalance and dehydration. More commonly, laxatives and vomiting can cause nutritional problems, constipation, and damage to the esophagus.

The incidence of eating disorders in adolescents, namely anorexia and bulimia, can be treated with the help of a doctor, dietician, or psychiatrist. Treatment focuses on self-help approaches and psychological treatment, specifically cognitive behavioral therapy, which aims to provide a better understanding of their condition and ways to change their behavior. Once the behavior is resolved, individual or group psychotherapy and consultation with a support group for people with eating disorders may benefit. Alternative data therapy, such as exercise in early adolescence, can provide benefits in preventing the eating disorders mentioned above if done in moderation and consuming food according to the principle of "Type, Amount, and Schedule".

Suppose eating disorders, namely anorexia nervosa and bulimia nervosa are allowed to drag on in adolescents. In that case, there will be an imbalance in nutrient intake, harming the adolescents themselves. The impact that will be caused if there is an imbalance of nutrient intake in adolescents will hamper the process of growth and development (growth spurt) and in adolescents. This will then have another impact because the youth, as the younger generation, will also give birth to other future candidates. To be able to give birth to the expected young generation, a healthy generation is needed to grow a healthy one as well.

Nutrition Education for Adolescents

Nutrition education aims to change food consumption knowledge, attitudes, and skills or practices. Nutrition education is essential because even though people's purchasing power is high and food is available if people's nutrition knowledge is not good, they cannot meet their nutritional needs.

According to Johnson and Johnson, nutrition education has short- and long-term goals. The short-term goals are: 1) Gain knowledge about foods that provide essential nutrients for the body and know the uses of nutrients for the body; 2) Building a conceptual framework of nutritional principles, their elaboration, and application of these principles; 3) Building a positive attitude towards the habit of developing motivation to use nutritional knowledge for health and welfare promotion, responding to nutritious food in a good attitude; and 4) Consuming nutritious food, including using nutritional knowledge in choosing food.

The long-term goals of nutrition education are: 1) To use a nutritional conceptual framework to manage changes in the food supply and to be able to distinguish several dietary recommendations; 2) To seek and be willing to receive nutrition knowledge; and 3) Select well and consume

nutritious food from day to day throughout life to maintain health, well-being, and productivity.

With the emergence of a positive attitude, someone immediately consumes based on the knowledge and conceptual framework built. But sometimes, there is an inner conflict or conflict between the newly acquired knowledge and the habits that have been carried out so far. Usually, someone will immediately try to find the correct information and then consume it forever.

The nutritional composition of each food has advantages and disadvantages. Some foods are high in carbohydrates but lacking in vitamins and minerals. Meanwhile, other foods are rich in vitamin C but lacking in vitamin A. To get food with complete nutrition, we should consume a variety of daily nourishment. By consuming various foods, nutritional deficiencies in one type of food will be complemented by the advantages of the nutritional composition of other types of food so that a balanced input of nutrients is obtained.

Nutrition Education for Healthy Eating Habits in Adolescents

Knowledge is about everything that is known. Knowledge results from learning, which occurs after people sense a particular object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste, and touch by themselves. Someone obtains knowledge through formal education. Informal and non-formal.

According to Notoatmodjo, the factors that influence knowledge include: (1) Education level is an effort to provide knowledge so that positive behavior changes increase; (2) Information, someone who has more sources of information will have broader knowledge; (3) Culture, human behavior or human groups in meeting needs which include attitudes and beliefs; (4) Experience, something that someone has experienced will increase knowledge about something informational; and (5) Socio-Economic, the level of a person's ability to meet needs in life.

Food is a vital need needed by all living things. For humans, food does not only fill us up but what is even more important is its function in maintaining a healthy body through the benefits of the nutrients contained therein. To obtain optimal body health, it is necessary to know the quality of the excellent food composition and the amount of food that should be eaten. Eating habits are important factors that affect a person's nutritional status and health, especially adolescents who need adequate nutrition in their development.

Environmental factors influence eating habits, such as cultural environment, nature, and population. The environment influences eating habits, especially culture, and it is generally difficult to change. Most people limit the food they eat to what they like or enjoy. Khomsan stated that teenagers already have choices about the food they want. In adolescence, eating habits have been formed.

Providing the right food to school-age children must be seen from many aspects, such as economic, social, cultural, religious, and medical aspects of the children themselves. Food at school age must be harmonious, harmonious, and balanced. Compatible means in accordance with the child's growth and development level. Harmonious is following the family's economic, socio-cultural and religious conditions. Meanwhile, balanced means that the nutritional value must follow the needs based on age and type of food, such as carbohydrates, protein, and fat.

Knowledge of nutrition is a person's ability to recall the nutritional content of food and the use of these nutrients in the body. The level of one's nutritional knowledge

influences attitudes and behavior in choosing food, ultimately affecting one's condition. The higher one's nutritional knowledge is expected to be, the better the nutritional state.

Nutritional knowledge is essential in forming one's eating habits because this will influence one's choice of type and amount of food consumed. One thing that is convincing about the importance of nutritional knowledge is based on three facts, namely 1) Adequate nutritional status is essential for health and well-being; 2) Everyone will only have enough nutrition if the food he eats can provide the nutrients needed for optimal body growth, maintenance, and energy; and 3) The science of nutrition provides necessary facts so that people can learn to use food properly for nutritional well-being.

The actual relationship between nutritional knowledge and food consumption patterns can be seen from the better nutritional knowledge, the better food consumption patterns, and conversely, the less knowledge of nutrition, the fewer food consumption patterns. This is related to the theory, which says that a person's level of nutritional knowledge influences attitudes and behavior in choosing food, which determines whether or not it is easy for a person to understand the benefits of the nutritional content of the food consumed.

Furthermore, Sedioetama believes that mistakes in choosing food and insufficient knowledge about nutrition will result in nutritional problems, ultimately affecting nutritional status. Good nutritional status can only be achieved with a good diet based on balanced, natural, and healthy diet.

The results of Ramadani Pratiwi's research show a significant influence between predisposing factors (knowledge) and students' eating patterns. This is consistent with this research that there is a relationship between nutritional knowledge and food consumption patterns. This is because one of the factors that influence food consumption patterns is nutritional knowledge. Knowledge of good nutrition is expected to influence good food consumption so that it can also lead to good nutritional status. Nutritional knowledge also has a crucial role in forming one's eating habits.

Adolescent attitudes about nutrition also play a role in meeting nutritional needs themselves, where that attitude is a readiness or willingness to act and is not an implementation of certain motives. Furthermore, Suhardjo stated that human attitudes are much influenced by the experiences and responses shown by other people to food since childhood. The knowledge gained is felt to be pleasant or vice versa so that each individual can have a like or dislike attitude towards food.

Food consumption and other behaviors in a person, family, or society are influenced by insights, perspectives, and other factors related to appropriate actions. Therefore, when explored further, the action's value system is influenced by past experiences related to information about food and nutrition received from various sources.

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