NUTRITION LITERACY AND ADOLESCENTS

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Introduction

Adolescents who are healthy and qualified are a serious concern for parents, education practitioners, and students. According to the World Health Organization (WHO), adolescents start from the age of 10-19 years. Adolescents have special nutritional needs balanced intake of nutrients according to the needs of adolescents will help adolescents achieve optimal growth and development. Food is one of the basic needs of every human being. Food contains the nutrients needed to grow and develop. Consuming sufficient and regular food will make a healthy body and brilliant performance, a fit body, and quality human resources.

It is very important that food literacy and nutrition are scientifically researched to develop and maintain a healthy nutritional status in society. In addition, together with academia, public and private sector organizations should work together to conduct a more comprehensive and detailed study to determine the important requirements for food and nutrition literacy. The level of knowledge or nutritional literacy can determine the adolescent in choosing the food to be consumed. The adolescent who has adequate knowledge regarding the type and amount of food that must be consumed to meet his nutritional needs tends to have a normal nutritional status. Good nutritional literacy can make adolescent more selective in determining what food choices can make them overweight or underweight.

A. Adolescents

Adolescence is a period of change from children to adults in the form of biological, psychological, and social changes. Stages of Adolescent Development. There are 3 stages in adolescent development, namely:

1) Early Adolescents
An early adolescent has characteristics that have new thoughts, are quickly attracted to the opposite sex, have high abilities, especially lack control in the ego, and make these early teens difficult to understand by adults.

2) Middle Adolescents
At this stage, teenagers need more friends, they are happy if they have friends and admit it. Has a tendency to love himself, and likes friends who have the same nature as him. They are also in a state of confusion because they can't tell who cares or doesn't care, is optimistic or pessimistic, and so on.

3) Late Adolescents
This stage is the stage towards adulthood and is characterized by three things, namely:
(a) Sexual identity is formed and does not change anymore
(b) Increasing interest
(c) His ego is used to seek opportunities to unite with others in new experiences.

Development Traits
Based on the characteristics of its development, adolescence is divided into 3 stages, namely:
(a) Early adolescence (10-12 years)
- Appear closer to peers
- Seems to want to be free
- Happy to think imaginatively

(b) Middle adolescence (13-15 years)
- Start looking for identity
- There is an attraction to the opposite sex
- A deep feeling of love arises

(c) Late adolescence (16-19 years)
- More selective in finding peers
- Have a picture of himself
- Demonstrate the ability of self-determination

The very rapid physical changes that occur are called “adolescent growth spurts.” Growth spurts are growth spurts. There are two times, namely in infancy and adolescence. The most optimal growth in adolescents. In women, the growth spurt occurs earlier than in men. The fastest growth begins at the age of 10 years and the fastest at the age of 12 years.[1] [2]

Adolescence is a period of growth and development marked by very rapid changes physically, psychologically, and cognitively. In the human life cycle, adolescence is the second most important growth period after infancy and toddlerhood. Rapid growth and development at this time require a higher amount of energy and nutrients. Increased body mass, bone mass, and body fat cause the need for energy and nutrients. At this time the need for nutrients is the highest compared to other periods in the human life cycle.1 However, most adolescents still do not realize the importance of adequate energy and nutrient intake to meet their daily needs. Consumption patterns in adolescents tend not to pay attention to the nutritional value of the food they consume. Adolescents are easily influenced by peers and social media, so they are easily influenced by unhealthy behavior and receive incorrect health and nutrition information.[3] [4]

There are still many Indonesian teenagers who do not realize that they have a short height or are called stunting. The average height of Indonesian children is shorter than the WHO standard, which is 12.5 cm shorter in boys and 9.8 cm more in girls. Nationally, the prevalence of adolescents aged 16-18 years who are in the short category is 31.4 percent consisting of 7.5% very short and 23.9% short. Stunting can have short-term impacts, including decreased cognitive function, decreased immune function, and disorders of the body's metabolic system which in turn can lead to the risk of degenerative diseases, such as diabetes. mellitus, coronary heart disease, hypertension, and obesity. Therefore, the prevention and treatment of stunting must be one of the national health priorities so that Indonesian children become healthier, smarter, and more achievers. Underweight or chronically lacking energy adolescents are also a nutritional problem experienced by some adolescents. This condition can be caused by a lack of nutrient intake, both for economic reasons and psychosocial reasons such as appearance. From Riskesdas data in 2013, the prevalence of underweight in adolescents was 9.4% consisting of 1.9% very thin and 7.5% thin. 46.6% in women who are not pregnant and 38.5% in pregnant women. Adolescents who experience CED increase the risk of various infectious diseases and hormonal disorders that have a negative impact on health. SEZs can be achieved by consuming balanced nutritious food according to the nutritional needs of adolescents.[5] [6]

In addition, the 2015 Global School Health Survey stated that the eating patterns of adolescents were still not good, such as the behaviour of not always eating breakfast (65.2%), consuming less fibre and fruit vegetables (93.6%), and often consuming flavoured foods (75.7%). . In terms of lifestyle, adolescents tend to adopt a sedentary lifestyle, which causes less physical activity (42.5%).3 These habits can increase the risk of a teenager becoming overweight and even obese. obese adolescents are quite large, namely 7.3% consisting of 5.7% obese and 1.6 percent obese.3 Obese adolescents will tend to be more at risk of experiencing non-communicable diseases such as hypertension, cardiovascular disease, diabetes mellitus, cancer, osteoporosis, and other diseases. which results in a decrease in productivity and life expectancy.[3]

The right lifestyle greatly affects the growth of adolescents, one of which is a lifestyle according to balanced nutrition guidelines for school children, namely routinely weighing body weight (BW) and doing physical activity. However, in reality, many teenagers do not live according to the guidelines for balanced nutrition in school children and do not even know about it. This causes adolescence to be said to be a period of vulnerability to nutrition. The occurrence of very amazing changes, both physically, mentally, and socially in adolescents causes them to require a balanced nutritional lifestyle.[7]

Nutritional Status

a. Definition of Nutritional Status

Before discussing nutritional status, we first need to know the meaning of nutrition itself. Nutrition is a process of organisms using food that is consumed normally through the processes of digestion, absorption, transportation, storage, metabolism, and excretion of substances that are not used to maintain life, growth, and normal function of organs, and produce energy. Nutritional status is a state of the body that is carried out by a balance between nutrient intake and needs. This balance can be seen from the growth variables, namely weight, height/body length, head circumference, arm circumference, and leg length. If the balance is disturbed, for example, the expenditure of energy and protein is more than the intake, there will be a lack of protein energy, and if it lasts for a long time, a problem known as severe PEM or malnutrition will arise. In general, children's nutritional problems are the impact of nutritional imbalances between intake and output of substances (nutritional imbalance), namely intake that exceeds output or vice versa, in addition to errors in choosing food ingredients to eat.[8] [9]

b. Nutrients needed by the body

An optimal food in addition to sufficient air also contains adequate calories, protein, vitamins, and minerals.

1) Protein

Proteins in foodstuffs provide the amino acids used by the body for protein biosynthesis. Protein is a source of energy along with carbohydrates and fats. Proteins work as building blocks and work in tissue growth and maintenance, utilizing dead cells. Protein deficiency is usually followed by a lack of energy. It is necessary to increase the consumption of animal and vegetable foods that are good sources of protein such as eggs, meat, fish, shellfish, and nuts.

2) Carbohydrates

Carbohydrates work as a general source of energy. In food, carbohydrates can be found in various forms. As a monosaccharide in honey and fruits, as a disaccharide in milk, and in all foods containing sugar (sucrose). Polysaccharides are found in plant products (bran) and animal products (glycogen). Carbohydrates provide a large share of energy intake but are not essential.[5] [10]

Lipid

The lipid is primarily a general energy carrier. Its relative energy content is approximately twice that of protein and carbohydrates.

4) Mineral ingredients

Among the inorganic components of food that are essential for life, the air is quantitatively the most important. An adult requires daily about 2.4 liters of air obtained through drinking, water in solid foods, and air oxidation from the respiratory chain.

Other elements that are important for life are mostly macro elements (daily requirements > 100 mg) and microelements (daily requirements < 100 mg). Included in the macro elements are sodium (Na), potassium (K), calcium (Ca), magnesium (Mg), chlorine (Cl), phosphorus (F), sulfur (S), and iodine (I). Included in the essential microelements that are only needed in small amounts are iron (Fe), zinc (Zn), manganese (Mn), copper (Cu), cobalt (Co), chromium (Cr), selenium (Se) molybdate (Mo). Although fluorine (F) is not essential for life, daily addition of fluoride helps with healthy bones and teeth.

5) vitamins

Vitamins are compounds needed by life, which cannot be formed by the body, although they are needed in small amounts for metabolism. Most vitamins are coenzyme precursors and in some cases also signal carrier precursors. The need for vitamins depends on the type and is influenced by age, sex, and physiological conditions such as pregnancy, lactation, body weight work, and diet.[11]

The problem of nutrition in children and adolescents is not a simple problem. This is directly related to the future of children as the next generation of the nation. It takes serious efforts from the central and local governments, as well as community involvement. Because various factors related to nutrition are the obligations of all parties, especially the government.[11]

Nutrition Literacy

Nutrition literacy is the degree to which an individual has the capacity or ability to obtain, process, and understand information related to nutrition. The level of nutritional literacy in adolescents is related to food consumption patterns that will contribute to problems in adolescents such as obesity, anemia, and other eating disorders and also have an impact on general health conditions. Many factors are related to nutritional problems in adolescents including dietary patterns, family income, illness, malnutrition, knowledge, and education. The wrong diet practice in adolescents is a health problem that does not only occur in developed countries but also in developing countries. Most teenagers think that a slim body is the most ideal body shape so they tend to limit the frequency and amount of food intake and practice inappropriate diets. This condition can eventually cause the fulfillment of adolescent nutrition to be not optimal, disrupting the adolescent growth process. This problem generally occurs because of the lack of information and nutrition education needed to make decisions that are really related to nutrition problems. Many adolescent do not know the importance of substances contained in food and their body functions. Adolescents tend not to pay too much attention to the nutritional content of the food they eat, allowing them to experience certain nutritional deficiencies or even excess nutrients which can lead to various health problems.[12] [13]

The extent to which a person, especially adolescent, obtains information related to nutrition, processes the information, and understands the information obtained so that they are able to make the right decisions related to nutrition with a nutritional concept known as nutritional literacy or nutritional literacy. Nutritional literacy is a degree to which an individual has the capacity to obtain, process, and understand nutrition-related information to be used as a basis for decision-making related to nutrition. these foods, and can determine the appropriate diet to meet their daily nutritional needs. So with a good level of nutritional literacy, it is hoped that adolescents will avoid nutritional problems that can hinder their growth and development. A good level of nutritional literacy in patients with chronic diseases contributes significantly to the quality of nutrient consumption. patient. This research was conducted at the age of adults who already have chronic diseases to assess the level of nutritional literacy and diet

quality, while the subjects in the research to be conducted are teenagers who are the period that will determine what diseases will be experienced later when they are adults.[14 15 16]

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Conclusion

Nutritional problems are a global health problem. Malnutrition can cause various health problems. Nutritional literacy is very important. Adolescents need good nutritional literacy.

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