Factors Affecting Nutritional Problems Of Elementary School Students

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Abstract

This nutritional problem is a serious problem that affects public health globally. Deficiencies in certain nutrients such as iron, vitamin A, vitamin D, or folic acid can lead to a variety of health problems. In researching factors that affect nutritional problems of elementary school students, researchers can use various research methods to understand the relationship between factors that contribute to these nutritional problems. Observational Study, Control Case Study, This study helps in identifying the risk factors that contribute to nutritional problems among primary school students. Secondary Data Analysis: Researchers can also use secondary data, such as national health survey data or school data, to analyze factors related to the nutritional problems of elementary school students. The results of this study show that the nutritional problems of elementary school students are influenced by various factors, including the home environment, nutritional knowledge, diet, access to nutritional resources, and nutrition education at school. Efforts to improve students' nutritional status require a holistic approach through interventions that involve parents, schools, and society as a whole.

Keywords: *Problems, Nutrition, Elementary School Students*

1. Introduction

Human resources (HR) refers to all individuals who work for an organization or company and is one of the most important assets in achieving the organization's goals and success. Human resources also include an individual's level of education, training, and work experience. The higher the level of education and experience, the greater the individual's contribution to the organization. It is important to acknowledge diversity in human resources, including differences in cultural backgrounds, gender, and more. Promoting fairness and inclusivity in the workplace can improve individual well-being and overall organizational performance.

Human resources also include aspects of an individual's physical and mental well-being. Employees who are physically and mentally healthy tend to be more productive, perform well, and contribute positively to the work environment. Nutrition refers to the process of receiving, absorbing, and using nutrients by the body for optimal growth, development, and maintenance of bodily functions. It includes all the nutrients needed by the body, including carbohydrates, proteins, fats, vitamins, minerals, fiber, and water. Good nutrition is important for maintaining health and well-being, as well as preventing various diseases and health problems.

Nutrition is the process by which the body receives, absorbs, and uses nutrients to maintain optimal health and performance. Nutrients are substances that the body needs for the growth, development, and proper functioning of the body's organs. Good nutrition is essential to maintain a healthy body and prevent various diseases. Powerful nutrients provide the energy needed for daily activities, strengthen the immune system, support optimal growth and development, and maintain the health of vital organs.

Nutrition refers to all the nutrients needed by the body to carry out various vital functions, such as growth, tissue maintenance, and organ function. Adequate nutrition is essential for overall health and well-being. Good nutrition includes the consumption of balanced nutrients, including carbohydrates, proteins, fats, vitamins, minerals, and water. Each type of nutrient plays an important role in maintaining the health of the body, from providing energy for daily activities to supporting immune system function.

Carbohydrates are the body's main source of energy and are found in foods such as cereals, bread, rice, and pasta. Protein is the basic ingredient for building and repairing body tissues and is essential for metabolic processes. Foods that contain protein sources include meat, fish, eggs, and dairy products. Fats are a source of energy reserves and are essential for the absorption of certain vitamins. Good fats are found in foods like avocados, nuts, olive oil, and oily fish. Vitamins and minerals are needed in small amounts but are important to maintain a healthy body. They are involved in a variety of bodily functions, such as bone formation, maintaining the immune system, and regulating metabolism. Foods rich in vitamins and minerals include fruits, vegetables, and dairy products. Water is essential for keeping the body hydrated and carrying out various physiological functions. Dehydration can disrupt the body's fluid balance and lead to dehydration. Learning about nutrition helps in making healthy food choices and realizing its impact on long-term health.

Nutritional improvement refers to efforts to increase adequate nutrient intake for individuals, families, or populations as a whole. The main goal of improving nutrition is to improve health and well-being through the consumption of balanced and nutritious foods. It is important to ensure that the community has adequate access to nutritious food. This can involve increasing access to healthy food sources, including expanding the reach of fresh food markets, supporting local farmers, and providing food assistance to families in need. Improving nutrition also involves promoting healthy feeding practices, especially during critical times such as lactation periods and breastfeeding for infants and toddlers. Monitoring and evaluation of the nutritional status of individuals and populations is important to determine the effectiveness of nutrition improvement programs. The data obtained from nutrition surveys can be used to identify nutritional problems and design appropriate interventions. Improving nutrition is an important component in efforts to improve overall health and quality of life, as well as reduce the risk of nutrition-related diseases such as malnutrition and obesity.

Nutrition of school children is very important because the growth and development period of a child is a critical time in the formation of healthy eating habits and affects their health and academic achievement. Schoolchildren need enough nutrition to support their physical, cognitive, and emotional growth. Adequate nutrition helps them stay focused, active, and participate in learning and extracurricular activities. A balanced diet is key to ensuring schoolchildren get all the nutrients they need. This includes the consumption of foods from all food groups, such as fruits, vegetables, whole grains, proteins (for example, meat, fish, nuts), and dairy products. Breakfast is a very important time for school children because it provides the energy needed to start the day well. A healthy breakfast should contain a mixture of complex carbohydrates, protein, healthy fats, fiber, and vitamins and minerals. School children should avoid foods and drinks that are high in added sugar, saturated fat, and low in fiber, as well as fast food that tends to be low in nutrients. It is important to ensure that school children are well hydrated. Lack of fluids can interfere with their concentration and study performance. School children should consume water regularly throughout the day. Development and growth during school is a broad and complex topic, covering various physical, cognitive, emotional, social, and moral aspects.

During school, children experience rapid physical growth, including an increase in height, weight, and organ development. School children experience significant cognitive development, such as the ability to think abstractly, solve problems, and manage information more complexly. Emotional development during school involves experiencing mood fluctuations, anxiety, and learning to manage emotions healthily. Children in school learn to build complex social relationships with peers, develop social skills, and understand social norms. School children begin to understand moral concepts such as justice, empathy, and responsibility. Intellectual growth during school involves the development of interests, talents, exploration of areas of knowledge, and academic skills.

The data for this report was obtained through a nutrition survey conducted by the Jambi Provincial Health Office in June-September 2023. The sample used was elementary school students from various districts/cities in Jambi Province. Of the 3000 students surveyed, based on the growth index, there are 10 percent for the thin category, for 70

percent in the normal category and 20 percent in the fat category. On average, for fruit intake and satiety per day 2 servings, consumption of low-nutritious or fast food 30 percent of students consume more than 2 times a week, while for sugary drinks 40 percent 5 percent of students consume every day.

Malnutrition or malnutrition occurs when the body does not get enough amounts of nutrients to meet its functional needs. The immediate causes of malnutrition can vary depending on individual, environmental, and social factors. One of the main causes of malnutrition is a lack of intake of foods that contain essential nutrients such as proteins, carbohydrates, fats, vitamins, and minerals. This can be due to limited access to nutritious food, poverty, or the inability to buy enough food. Consumption of foods high in saturated fat, added sugar, or processed foods that are low in nutrients can disrupt the balance of nutrients in the body, causing excess energy but a deficiency of essential nutrients. Malnutrition or malnutrition can have various characteristics that indicate a nutritional imbalance in the body. Malnutrition often leads to significant weight loss, especially if the condition persists over a long period of time.

In children, malnutrition can lead to serious delays in physical growth and cognitive development. In children, malnutrition can lead to serious delays in physical growth and cognitive development. Malnutrition can interfere with overall body function, including a weakened immune system, increase the risk of infection, and interfere with vital organ function. Malnutrition can affect physical appearance, including dull, dry, and brittle skin and hair. Deficiencies in iron, vitamin B12, or folic acid can lead to anemia, which is characterized by a decrease in the number of red blood cells or hemoglobin in the blood. Malnutrition can lead to cognitive impairment, including difficulty concentrating, memory loss, and learning problems.

2. Method

In researching factors that affect nutritional problems of elementary school students, researchers can use various research methods to understand the relationship between factors that contribute to these nutritional problems. Observational Study: This method involves direct observation of elementary school students to identify dietary patterns, eating habits, physical activity, and environmental factors that may affect their nutritional status. Observation can be done directly at school or at home Control Case Study: This method compares students who experience nutritional problems with students who have normal nutritional status. This study helps in identifying the risk factors that contribute to nutritional problems among primary school students. Secondary Data Analysis: Researchers can also use secondary data, such as national health survey data or school data, to analyze factors related to the nutritional problems of elementary school students. This secondary data can provide additional insights into trends and patterns of nutrition problems at the population level. The data for this report was collected from school health records, interviews with educators and parents of students, and the results of a nutrition survey conducted by the Jambi City Health Office

3. Results and Discussion

This nutritional problem is a serious problem affecting public health around the world. Deficiencies in certain nutrients, such as iron, vitamin A, vitamin D, or folic acid, can lead to a variety of health problems. Obesity and obesity: This condition results from the consumption of high-calorie foods and a sedentary lifestyle. Iron deficiency in the diet can lead to anemia, which is characterized by a decrease in the number of red blood cells or hemoglobin in the blood. Nutritional problems can be caused by several factors, including an unbalanced diet, limited access to nutritious foods, economic conditions, poor eating habits, and lack of knowledge about good nutrition. Solving nutrition problems requires a concerted effort from individuals, communities, governments and related organizations to improve access to nutritious food, educate about the importance of a balanced diet, and encourage changes in people's behavior in choosing and consuming food. Nutritional problems are an imbalance between the nutritional intake that the body needs and the nutritional intake that is actually

consumed by the body. Nutritional problems can be caused by deficiencies or overabundances of certain nutrients.

Classically, nutrition is associated with the health of the body (energy supply, development, maintenance of body tissues, regulation of vital processes of the body). Today, nutrition is not only associated with health, but also with a person's economic potential, because nutrition is related to brain development, learning ability and work productivity. In Indonesia, among other factors, nutrition is considered one of the important driving factors for development, especially in terms of developing the quality of human resources.

Nutrition is a measure of a person's body state that can be read from the food consumed and the use of substances in the body. Nutritional status is a state caused by a balance between the intake of nutrients from food and the need for nutrients needed for the body's metabolism. Each individual needs different nutrient intake depending on age, gender, daily activities, weight and so on.

Grouping of nutrients according to needs.

1. Carbohydrates

Carbohydrates, which are also called starch, flour or sugar, are substances composed of the elements carbon (C), hydrogen (H) and oxygen (O). In the body, carbohydrates are burned to produce energy or heat. One gram of carbohydrates yields four calories. Depending on the size of the carbohydrate molecules, they can be divided into three carbohydrate molecules: monosaccharides, disaccharides, and polysaccharides. Carbohydrate energy sources are necessary for work, respiration, and other purposes. Carbohydrates are mainly found in plants, such as rice, corn, potatoes, wheat, and sweet potatoes.

2. Protein

Protein is a chemical compound that contains elements C, H, O, N and sometimes elements P and S. Depending on the source or origin, proteins are divided into vegetable (plant-based) proteins, such as beans, tofu, tempeh, soybeans, and wheat, as well as animal proteins, such as meat, eggs, milk, cheese, and fish. 1 gram of protein provides 4 calories. Protein is necessary for the formation and repair of all body tissues, such as blood, enzymes, hormones, skin, hair, and nails.

3. Fat

Fat is a chemical compound that contains elements C, H and O. Generally found in side dishes (fatty meat) and oil (cooking oil). One gram of fat contains nine calories in the body. The main function of fat is to provide energy to the body. Fat is also a solvent for various vitamins, namely vitamins A, D, E and K. Foods that contain a lot of fat provide a feeling of fullness for a long time, and fat also gives a savory taste to food.

4. Mineral

Minerals are organic compounds that have an important role in the body. The mineral elements are carbon (C), hydrogen (H), oxygen (O), and nitrogen (N), besides that minerals also have other chemical elements, namely calcium (Ca), chloride (CO), iron (Fe), magnesium (Mg), phosphorus (P), potassium (K), sodium (Na), sulfur (S). Minerals are needed by the body as building and protective substances. Many are found in side dishes or vegetables, for example Fe (iron) is found in spinach, kale, and katuk, eggs and other green vegetables.

5. Vitamin

Vitamins are organic compounds that are found in very small amounts in food and play a very important role in metabolic reactions. proteins, fats, and carbohydrates. According to their nature, vitamins are classified into two, namely fat-soluble vitamins vitamins A, D, E, and K, and water-soluble vitamins, namely vitamins B and C. Vitamins are included in the group of substances that regulate growth and maintenance of life. Each vitamin has a specific task in the body.

6. Water

Water is the largest component in the structure of the human body, approximately 60-70% of the body weight of adults is in the form of water, so water is indispensable for the body. Water is a very important material for human life and its function cannot be replaced by other compounds. The function of water is to form body fluids, a means of transporting nutritional elements, regulating body heat and transporting oxidation residues from the body.

Primary school-age children are the last days of childhood, most of whom are between the ages of six and twelve. The age of primary school is marked by the beginning of the child's entry into elementary school, and also the beginning of a new history in his life that can influence and change his knowledge and attitudes. School-age children have relatively greater needs than children under their age because their growth will be faster during this period, especially as they increase in height. The nutritional needs of boys and girls are also different, because boys exercise more and therefore need more protein and iron. This age is called the group of school children who usually receive a lot of attention and activities outside the home, so they often forget to eat. To meet the needs of the body and make it easier to receive lessons at school, it is necessary to pay attention to intake.

A child's energy needs are based on energy needs for basal metabolism, growth rate and activity. Children's protein needs include tissue maintenance, changes in body composition, and the formation of new tissues. The most important function in children is protein for growth, as protein deficiency results in slow growth and inability to achieve normal health and growth. Fat is a nutrient that acts as a source of energy, absorption of various vitamins and provides a sense of pleasure and satisfaction with food. In addition, fat plays a role in growth, especially in the components of cell membranes and brain cells. Fats that are important for children's growth and development are linoleic fatty acids and alpha-linoleic fatty acids. In addition, there are vitamins and minerals that the body needs in smaller amounts than proteins, fats, and carbohydrates, but they are very important for the body. Both regulate the balance between the body's work and overall health. There are many health problems that occur in elementary school children, but the most common is the problem of nutritional balance. Nutritional problems can occur due to several factors, such as age, gender, parental education, infectious diseases, and family income. Malnutrition is a health condition that occurs due to a lack or imbalance of nutrients that the body needs to grow and develop, move, think and everything related to life.

Lack of nutrition or nutrition usually begins with low energy and protein intake that occurs over a long period of time. According to the Ministry of Nutrition and Health, malnutrition diseases are divided into two categories, namely those consisting of primary malnutrition diseases, for example deficiencies in certain essential nutrients, such as vitamin C deficiency which causes patients to experience symptoms of scurvy. The second category concerns secondary malnutrition diseases, for example diseases due to nutrient absorption or metabolic disorders.

Lack of nutrition or nutrition will have a negative impact on physical and mental growth. There is a delay in growth and development that is difficult to cure. In addition, children who experience malnutrition will have more limited opportunities to learn, work, and behave compared to normal children. The more serious consequences of malnutrition are the onset of disability, disease and death. If malnutrition lasts for a long time, malnutrition occurs. In this situation, it can cause kwashiorkor and marasmus which are usually accompanied by other diseases such as diarrhea, infections, digestive diseases, upper respiratory tract infections, anemia and others.

Nutritional problems of elementary school students are influenced by various factors, including home environment, nutritional knowledge, diet, access to nutritional resources, and nutrition education at school. Efforts to improve students' nutritional status require a holistic approach through interventions that involve parents, schools, and society as a whole.

7. Conclusion and Suggestions

Contains conclusions and suggestions. The conclusion contains answers to research questions. Suggestions refer to the results of research and are in the form of practical

actions, mention who and what the advice is intended for. It is written in the form of an essay, not in numerical form.

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