



Balanced Nutrition Optimizes Growth and Development of School-Age Children

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ABSTRACTS

Increasing incidence of school-age children with overweight and obesity problems increases the risk of future health problems. This community services provides solutions to introduce balanced nutrition to school-aged children. The method of this activity is community empowerment and training activities. This activity useful for increasing the knowledge, attitudes, and behavior of YWKA elementary school students. The role of community nurses is needed to implement a balanced nutrition program as part of promotional and preventive efforts to prevent problems in children.

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1. INTRODUCTION

During their growth and development, school age children often suffer from several health problems such as: infectious diseases, chronic infectious diseases, injuries or accidents, and nutritional problems (Allender, Rector, & Warner, 2014). Nutritional problems in children are related to body mass index (BMI) that is less than the average BMI of their peers or more than their peers. BMI can be one of the important factors that determine the physical condition of children in the future. Most children with overweight problems have the same quality of life as their peers, but when they get older this changes, the quality of life in terms of physical, social and school performance becomes lower and can interfere with the process of optimal growth and development (Pinhas, et al., 2006).

Overweight and obesity are now common problems throughout the world, this has occurred in 1.4 billion citizens of the world who are overweight and overweight and spread throughout countries in the world including in Indonesia (WHO, 2013). Data from the

Organization for Economic Co-operation and Development (OECD) (2014) reports that there has been a development of overweight cases in children during the last ten years in countries such as Korea (3-4%), Switzerland (7-8 %), Italy (8-9%), Hungary (17-18%) and England (22-23%). The increasing prevalence varies in boys and girls, more than 30% of boys and girls are overweight (including obesity) in Greece, Italy, Slovenia and the United States. In general, the OECD states that one in five children worldwide is overweight, including in Indonesia (OECD, 2014).

The increase in the prevalence of overweight and overweight in AUS is due to environmental factors which are the accumulation of unhealthy dietary behavior and sedentary lifestyles in children (NIH, 2012). Unhealthy behavior by consuming large portions of food (exceeding the need), foods high in energy, high in fat, high in simple carbohydrates and low in fiber (Ministry of Health, 2012). In addition, the habit of consuming foods that have excess salt and sugar levels in fast food has now begun to develop in various regions in Indonesia. Fast food is food that is high in calories, high in fat, but low in fiber, vitamins and minerals. Excessive consumption of fast food twice a week or more can increase the risk of being overweight (Anderson, Rafferty, Callo, Fussman, & Imes, 2011). Therefore, the authors held a balanced nutrition explanation activity and a food plate demonstration in this community service activity.

2. METHODS

Community service is provided by providing health information on the benefits of balanced nutrition consumption, demonstration of my plate (balanced nutrition), and motivating doctoral members to adopt healthy living habits.

3. RESULTS AND DISCUSSION

This community service is carried out within 2 weeks starting with a situation analysis, determining problems, making program designs according to the form of intervention, socializing activities to the school, implementing activities, to evaluating. This activities carried out by explaining the importance of balanced nutrition in maintaining children's health. Furthermore, it is explained about the dangers of diseases that may arise when the nutritional needs of children are not fulfilled. The state of balanced nutrition certainly affects health, intelligence, and high work/activity productivity. Optimal nutrition is essential for normal growth and physical development for all age groups. Based on Riskesdas 2007, 2010, and 2013, it shows that Indonesia still has a malnutrition problem. Nutritional deficiency is also associated with the risk of chronic disease in adulthood, namely obesity, heart and blood vessel disease, hypertension, stroke, and diabetes.



School-age children are an important stage in the growth and development cycle, because they are an investment as the nation's next generation. The quality of the nation in the future is determined by the quality of children today, including a healthy physical condition as a determinant of children's growth and development which affects the quality of life of children. (Kopelman, Caterson, & Dietz, 2010). School-age children are a group that is in a golden period of growth and development that is well organized in the school organization, but if the child's health condition is disturbed, it will interfere with the learning process carried out by children at school.

A child is said to have a problem of being overweight if the child has a BMI value according to the child's age which is at a value of more than 1 standard deviation to 2 standard deviations (Ministry of Health, 2012). This value shows an increase in BMI value that exceeds the normal value for children, with a different variation in the increase in BMI for each child. Calculation of BMI is obtained from calculations by dividing body weight (kg) by the square of height (meters) (WHO, 2004). The BMI category according to WHO (2004) can show an important relationship with the risk of various diseases that may arise due to weight problems.



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Nutrition services are needed at school UKS, because school children are in their infancy and require adequate nutritional intake. The role of the nurse is to provide counseling about proper nutritional intake, which must be a balance between the activities that the child does with the intake of carbohydrates, protein, vitamins and minerals. Good education for students not to eat fast food too often because the nutrients contained in it are not good for growth. Parents should get used to having breakfast before leaving for school, because children who are learning need adequate nutritional intake for thinking. Nutritional services can be provided in the form of facilities for providing lunch and healthy snacks by schools, but if the implementation is not possible, the service is focused on increasing students' knowledge in recognizing nutrition that is good for the body and having the right attitude in the application of daily food consumption (CDC, 2014).



The results of this program implementation can provide benefits for children including increased knowledge, attitudes and skills of wear related to nutrition and weight management. This increase is accompanied by an increase in children's motivation to sustainably implement programs that provide benefits of stability in body weight and BMI during growth. The improvement of children's skills is shown by increasing the habit of physical activity of cycling or walking which is carried out every day, the habit of eating fruit every day, the habit of eating vegetables every day, and the participation of children in the consumption of various energy substances other than rice. Increasing healthy habits in

children who are overweight and obese has a positive influence on the habits of the surrounding school environment including peers and teachers to also participate in this program even though they do not experience nutritional problems. After the implementation of the program, the school atmosphere at YWKA Elementary School has become conducive and able to support efforts to manage weight for wear and tear so that it becomes ideal and health benefits for the future of the child.

4. CONCLUSION

This community services activity is useful for increasing the knowledge, attitudes, and behavior of YWKA elementary school students. The next result is that students can apply my food plate with a balanced nutritional pattern.

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