

## NUTRITIONAL EDUCATION ON INCREASING NUTRITIONAL KNOWLEDGE AND ATTITUDES AMONG ADOLESCENTS

Devillya Puspita Dewi<sup>1\*</sup>, Kuntari Astriana<sup>1</sup>, Alfian Sacitta Nanda<sup>1</sup>, Yunika Ajeng Wanondya Perwitasari<sup>1</sup>

<sup>1</sup>Nutrition Program, Faculty of Health Sciences, Universitas Respati Yogyakarta, Indonesia

\*Corresponding author: [devillya@respati.ac.id](mailto:devillya@respati.ac.id)

### ABSTRACT

**Background:** Adolescence is a transition period from childhood to young adulthood. Adolescence is a period that is vulnerable to nutritional problems. Schools are one of the places to make efforts to prevent nutritional problems in adolescents. Adolescent nutritional problems include those related to nutritional status (undernutrition and overnutrition), lack of knowledge about adolescent nutrition. Nutritional problems at school can be prevented or anticipated by providing education about adolescent nutrition to adolescents at school.

**Method:** The method used in this activity is quasi experimental with a pre-post test group design. Participants in the activity were 30 students. Data on knowledge and attitudes about adolescent nutrition were obtained by distributing questionnaires before and after providing education. The pre post test results were analyzed using a paired t test.

**Results:** Increase in average knowledge about adolescent nutrition before education from 61.5 to 85.5. Increase in average attitudes about adolescent nutrition before education from 65.5 to 87.2. There are differences in the average knowledge and attitudes about adolescent nutrition before and after providing education.

**Conclusion:** Providing education about adolescent nutrition influences knowledge and attitudes about adolescent nutrition.

**Keywords:** Education; Nutrition; Adolescent

### INTRODUCTION

Adolescents are young individuals aged between 10 and 19 years old. Globally, there are 1.8 billion adolescents, constituting the largest generation of young persons and about 90% of them reside in low-middle income countries (LMIC). Adolescence, when growth spurts occur, may expose them to malnutrition (WHO, 2002). Adolescence is an important period where there is a transition from child to adult.

Adolescence is a period that is vulnerable to nutritional problems. Schools are one of the places to make efforts to prevent nutritional problems in adolescents. Adolescent nutrition problems include those related to nutritional status (undernutrition and overnutrition), lack of knowledge about adolescent nutrition, anemia, lack of skills in measuring nutritional status.

They gain 20% to 25% of their height and up to 50% of their ideal weight. To support this rapid growth, there is a need for increased demand of energy, protein, minerals and vitamins (Mokhtari, et al.2017). Sufficient nutrient intake of both macro and micronutrients is essential at this stage to meet the increased demand due to speedy growth, sexual maturation and menstruation.

Globally undernutrition deficiency is a risk factor contributing to the burden of disease among adolescents (Black et al, 2013). The prevalence of iron deficiency among younger adolescent girls is 22.3%, and 24% among older adolescent girls.

Anemia is a condition of hemoglobin and hematocrit at low levels that cause the body to experience hypoxia as a result of decreased ability to transport oxygen from the blood. Adolescence also is a unique point of intervention as people of this age group are

more receptive to changes in lifestyle that may determine their life course later (Bakrania, 2018).

Previous studies showed that adolescents have poor knowledge, attitudes. Providing them with knowledge about malnutrition could prevent them from malnutrition and related illnesses later in life. Studies have recommended the provision of nutritional education and behavioral change intervention in order to prevent and reduce malnutrition among adolescents.

## METHODS

This research uses a quasi-experimental method, namely by providing education about adolescent nutrition. The research sample was 30 students. The data taken is knowledge and attitudes about adolescent nutrition. Before providing nutrition education, teenagers are given a pre-test and after providing balanced nutrition education, a post-test is carried out to determine changes in students' knowledge. Data analysis used the independent t test.

## RESULTS AND DISCUSSION

The research results showed that based on gender characteristics, 60% of respondents were male and 40% female. Based on knowledge data, the data obtained showed an increase in adolescent nutritional knowledge, namely from 61.5 to 85.5. Increase in average attitudes about adolescent nutrition before education from 65.5 to 87.2.

**Table 1.** Bivariate analysed

Knowledge	Mean	Mean difference	<i>p</i>
Pretest	61.5	24	0.0001
Posttest	85.5		
Attitudes	Mean	Mean difference	<i>p</i>
Pretest	65.5	21.7	0.0002
Posttest	87.2		

From table 1 above, it is known that there is an influence of providing adolescent nutrition education on increasing students' knowledge ( $p < 0,05$ ). There is an influence of

providing education about balanced nutrition on teenagers' attitudes about teenage nutrition ( $p < 0,05$ ).

The review was intended to identify the characteristics of the effect of health and nutrition education intervention aimed at improving knowledge, attitudes. The review systematically identified and summarized the characteristics of the effect of health/nutrition education intervention in improving knowledge, attitudes and practices of adolescents on malnutrition (Razzak et al, 2016).

Evidence exists that the use of theory in developing health education modules with effective learning skills effectively improved knowledge, attitudes and practices, thereby possibly decreasing the risk factors associated with pre-adolescent and adolescent malnutrition (Gallotta et al, 2016). Interventions to improve knowledge, attitudes, practices and the nutritional status of adolescent have significantly improved nutritional status and healthy behaviors among adolescents.

Health education intervention on malnutrition will improve the health status of adolescents now, when they become adults, and for the optimal growth and development of their offspring to prevent the cycle of intergenerational transmission of malnutrition in adolescents. The effectiveness of the intervention in this review concurs with evidence from systematic reviews that showed statistically significant improvement in knowledge, attitudes and practices.

The purpose of this study was to assess whether this school-based nutrition education programme is effective to improve adolescents' knowledge, attitudes and behaviour in relation to nutrition in rural areas (Wang et al, 2015).

The results showed that some of adolescents' knowledge, attitudes and behaviour in relation to nutrition improved significantly after this 6-month nutrition education, which demonstrates that this

nutrition education program is effective to promote adolescents' nutrition in rural areas of China. These findings are consistent with the results of previous studies, which showed that school-based nutrition interventions can play a major role in dietary change among adolescents because the amount of time young people spend at school and the large percentage of food they consume there, parental influence on diet decreases and the food provided in schools and the influence of peers become more important.

## CONCLUSION

Providing education about adolescent nutrition influences knowledge and attitudes about adolescent nutrition.

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## CONFLICT OF INTEREST

Authors declared no conflict of interest with those involved in this study.

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