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# YOUTH NUTRITION EDUCATION FOR FEMALE **STUDENTS**

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#### **ABSTRACT**

Adolescence is characterized by a phase of rapid growth and development in which the need for nutrients and micronutrients is relatively high. Adolescents with good nutritional knowledge are more likely to follow healthy eating habits. In this regard, this community service is planned to assess basic knowledge related to nutrition for adolescent girls in increasing their knowledge related to nutrition. Main Activities Educational activities on adolescent nutrition, the target is young female students of the Salafiyah Syafi'iyah Sukorejo Islamic Boarding School, located on the Faculty of Health Sciences Campus. The purpose of the implementation is to increase the insight of young women about balanced nutrition in adolescents. The conclusion of this activity is that most of the young female students have not implemented a healthy lifestyle in their daily life, most of the nutritional status of the female students are normal nutrition, most of the teenage students.

Keywords: Nutrition; Youth; Female Students.

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#### INTRODUCTION

The phenomenon of growth in adolescence demands high nutritional needs in order to achieve maximum growth potential because nutrition and growth are integral relationship. Unfulfilled nutritional needs at this time can result in delayed sexual maturation and linear

growth retardation. At this time nutrition is also important to prevent the occurrence of chronic diseases related to nutrition in adulthood, such as cardiovascular disease, diabetes, cancer and osteoporosis (PDGMI, n.d.).

Before adolescence, the nutritional needs of boys and girls are distinguished, but during adolescence there are specific biological and physiological changes in the body according to gender (gender specific) so that the nutritional needs also become different. For example, teenage girls need more iron because they have menstruation every month. In addition to biological and physiological changes, adolescents also experience psychological and social changes. There are variations in the time and duration of the transition from children to adults, which are influenced by socio-cultural and economic factors. In addition. adolescents are not homogeneous group even though they are in the same socio-cultural environment wide variations with in terms development, maturity and lifestyle. Blum's (1991) research on adolescents aged 15-18 years found that male adolescents were more confident, felt happier and healthier and were less vulnerable than female adolescents who tended to feel less satisfied with their body, personality and health (Depkes, 2016)

The main nutritional problems in adolescents are micronutrient deficiencies, especially iron deficiency anemia, as well as malnutrition problems, both undernutrition and short stature and overweight to obesity with co-morbidities, both of which are often related to wrong eating behavior. Nutritional problems in adolescents arise due to poor nutritional intake, namely an imbalance between nutritional intake and the recommended

nutritional adequacy. Nutritional problems that can occur in adolescents are underweight, obesity (over weight) and anemia. Malnutrition occurs because the amount of energy consumption and other nutrients do not meet the body's needs (Depkes, 2013).

Some of the factors that cause it, namely young women in consuming foodstuffs are not good, the frequency of eating is not good, this is deliberately done with the main goal of getting the ideal body shape. This causes eating disorders to occur more among women than men. Food intake is a way of selecting food ingredients that will be consumed by each individual. Based on previous research, poor eating habits in adolescent girls that aim to obtain a slim body shape, this is what causes eating disorders (Theresa A. Nicklas, 2002).

Women (especially young women) tend to pay more attention to body shape and according to their perception a good body shape is a thin and slender body. This is further exacerbated by the influence of job demands, especially for someone who works as a model. Based on this inaccurate perception, it can eventually lead to deviant eating behavior which will have a negative impact on the nutritional status of the individual,3 such as the type and source of food to be consumed (Heald & EJ, 2011).

The role of the Faculty of Health Sciences as a university in carrying out the tri dharma of higher education is one of community service, getting closer to the community so that they can recognize, know and feel the problems faced by the community. The Faculty of Health Sciences as a university in the field of health with the Tri Dharma of Higher Education devotes knowledge and skills as a tangible form of helping to build the community through community service strategies. Community

service as a form of real work in the community and benefits for the community can adopt strategies as an effort to improve health status. The form of community service in this activity with the theme "Nutrition education for young women". The Faculty of Health Sciences, especially the Midwifery study program, whose human resources are teaching midwives, synergize with each other for community service activities. Midwives continuous care starting from infancy to menopause (Ningsih, 2017). In addition, midwives can build good relationships with mothers as recipients of care so that services can be of high quality (Dewi Andariya Ningsih, 2015). Women-centred care is also very supportive in the counseling process for existing problems (Ningsih, 2021)

The Salafiyah Safi'iyah Sukorejo Islamic Boarding School is located in the village of Sukorejo, Banyuputih District, which was founded in 1914 by Kiai Syamsul Arifin. This Islamic boarding school occupies an area of 11.9 ha. The hallmark of this lodge is the combination of the Salaf and modern systems. The boarding school that stands in Sukorejo was originally a dense forest. After receiving advice from Habib Musawa and Kiai Asadullah from Semarang, Kiai Syamsul Arifin, as the founder of the lodge, immediately cleared the dense forest around 1908 to establish a pesantren. Sukorejo Islamic Boarding School has become an agent of development for the surrounding community and is integrated with the surrounding community.

Salafiyah Syafi'iyah Sukorejo Islamic Boarding School is an old Islamic boarding school. Its pioneering started in 1908 AD, and was established in 1914 AD. Pondok Pesantren was pioneered and founded by K.H.R. Syamsul Arifin and K.H.R.As'ad Syamsul Arifin, apart from being an educational institution, they also play a role and function as an institution for struggle and community service. As an educational institution, this pesantren provides formal education and non-formal education. The age of this Islamic boarding school was even a century ago in 2014 (1914-2014). The students come from all over Indonesia and there are also students from Singapore, Malaysia, and Brunei Darussalam. The educational institutions developed in this pesantren range from kindergarten to university (Ponpes Sukorejo. Pondok Pesantren Salafiyah Syafiiyah Sukorejo Situbondo, n.d.).

Other problems are related to nutritional problems, namely the lack of variety in the food menu, students do not have breakfast, take food that does not match the portion. Environmental and nutritional problems can cause the body mass index to decrease in adolescence. Overall Body Mass Index (BMI) data for children aged 13-15 years in Indonesia shows 2.7% 3 very thin children, 7.4% thin, 87.4% normal and 2.5% fat. The prevalence of nutritional status based on Body Mass Index/age (BMI/U) at the age of 16-18 years in Indonesia. Nutritional status data based on the TB/U index showed 1.8% very thin, 7.1% thin, 89.7% normal, and 1.4% fat.

The problem of anemia is also a problem due to the non-fulfillment of a balanced nutritional pattern. Anemia is a condition in which the number of erythrocytes (red blood cells) or the level of hemoglobin (Hb) in the blood is less than normal (for women HB < 12g/dl). Anemia that often occurs is iron nutritional anemia, which is anemia that occurs due to iron deficiency from the food consumed or due

to excessive blood loss and cannot be replaced by food consumption. The characteristics of anemia are often feeling dizzy, lethargic and tired body like no energy. In addition, it will look pale on the palms and eyes and the body's resistance will decrease(Lembaga Ilmu Pengetahuan Indonesia, 2000).

Anemia often occurs in the lives of teenagers, especially young women. This can happen because young women are in puberty, so the need for iron to balance the development of the body is getting bigger. In addition, young women experience menstruation so they have a need to replace lost iron with menstrual blood. Nutritional problems that occur are generally caused by several factors, including: poverty, lack of food availability, poor sanitation, lack of knowledge about nutrition, balanced menus and health. **Factors** that influence adolescent nutritional problems individual status, economic status, and individual body anatomy. In addition, nutritional status is also influenced by direct and indirect factors. Direct factors include food consumption, behavior and health. Indirect factors include: income, employment, education, social skills, the ability of the family to use food and the availability of food in the family.

The disease control program, which is still widely available in Indonesia, aims to control risk factors in order to reduce morbidity, disability and death caused by these various disease.

#### **OBJECTIVES**

General Purpose

Disease control is prioritized on early prevention through efforts to prevent disease risk factors, namely promotive and preventive efforts by not neglecting curative and rehabilitative efforts.

Therefore, the disease control program is carried out with the priority of preventive and promotive efforts, without neglecting curative efforts. This is the basis for holding nutrition education for adolescents by the Faculty of Health Sciences.

The purpose of the implementation is to increase the knowledge of young women about balanced nutrition in adolescents, to organize free health checks for students.

# Special Purpose

After carrying out this community service activity, it is expected that the target of the activity will be able to:

- Increase the knowledge of young women about balanced nutrition for adolescents.
- 2. Organizing free health checks for youth.

#### PLAN OF ACTION

Strategy Plan

Targets that can be given to solve the problems that have been described in problem identification are:

- 1. The first problem: there is no youth nutrition education program at the Salafiyah Syafi'iyah Islamic Boarding School Sukorejo.
- 2. the second and third problems: The number of anemia occurrences in adolescent girls is getting bigger and there is no regular Hb check to monitor the Hb value in female students.
- 3. fourth problem: Lack of fulfillment of balanced nutrition in the diet of students, namely the lack of food diversity and also lack of attention to the portion and quality of nutrition that is eaten.
- 4. fifth problem: The absence of an examination program to monitor the

nutritional status of students which consists of monitoring weight and height to determine BMI and Hb examination.

## *Implementation*

The activity begins with licensing to the Dean of the Faculty of Health Sciences and sending a letter of application for permission to Islamic boarding schools. The implementation of the above problems is by:

- 1. The first problem is by holding nutrition education treatment for adolescents in accordance with the prevalence that occurs in the target environment of the activity.
- 2. Implementation of the second and third problems by providing Fe tablets and counseling about anemia as well as routine checks for targets detected by anemia as an effort to control the incidence of anemia.
- 3. The implementation of the fourth problem is to conduct health education about nutrition and problems and overcome them so that participants receive clear health information.
- 4. The fifth problem of its implementation is to carry out an examination after the nutrition education counseling is carried out.

### Setting

The place of implementation is at the Faculty of Health Sciences Campus on Friday, April 30, 2021. This program contains activities for measuring weight and height, checking lilac and checking hemoglobin levels to determine the presence of anemia and to increase students' insight about the results of health checks through counseling activities.

The implementation stages for this

activity are regulated as follows:

- 1. Registrasi, with identity results and time allocation of 10 minutes.
- 2. Balanced nutrition counseling with the results of balanced nutrition information and 35 minutes time allocation.
- 3. Measurement of height and weight with the results of BMI values and time allocation of 3 minutes for each participant.
- 4. Hb check with Hb value and time allocation of 3 minutes for each participant.
- 5. Lila examination with Lila's score and time allocation of 3 minutes for each participant.
- 6. Counseling with a value according to the results of the examination with an allocation of 5 minutes for each participant.
- 7. Recapitulation of results with the value of the resume of the examination results and the time allocation of 3 minutes for each participant.

# Target

The target is 38 female students of the Salafiyah Syafi'iyah Islamic Boarding School in Sukorejo.

# RESULTS AND DISCUSSION

This activity was carried out on Friday, April 30, 2021 at the Faculty of Health Sciences. The reason is because at the Islamic boarding school on Friday it is a holiday so it is possible for young female students to have the opportunity to attend nutrition education for young girls. There were 38 participants present. After counseling related to nutrition education, BMI, Lila and HB examination were carried out. For the results of the BMI examination, it was found for the category

of very thin 1 person, thin 3 people, normal 19 people, fat 10 people and very fat 5 people as shown in Figure 1. After that, LILA examination was carried out with results <23.5 cm as many as 4 people and 23.5 cm as many as 34 people as shown in Figure 2. For the results of the examination of Hb levels, 29 people were found to be anemic (< 12 g/dl) and 9 people were within normal limits as shown in Figure 3. At this time, consultations were also carried out with students about tips on maintaining health.

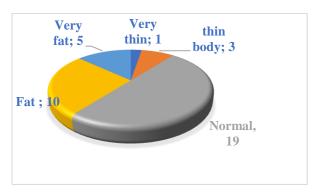
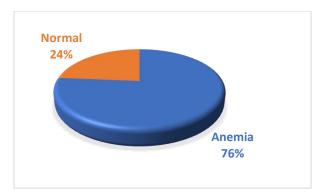


Figure 1. BMI Frequency.



Figure 2. LILA Measurement Frequency.



**Figure 3.** Anemia Frequency.

Girls are at a much higher risk of malnutrition and related chronic diseases because of their reproductive characteristics and other socio-cultural problems such as neglect of girls in the family, early marriage, and teenage pregnancy (Organisasi Kesehatan Dunia, n.d.). Skipping daily meals which lead to malnutrition, and at the same time, consuming junk food and fast food which leads to overweight, is very common among teenagers revealing the double side of this problem.(Kotecha et al., n.d.).



**Figure 4.** Young Women Listening to Information on Nutrition for Youth.



**Figure 5.** Delivery of Health Extension Materials to Young Women.

Adolescents with good nutritional knowledge are more likely to follow healthy eating habits (Grosso et al., 2013) (Alam et al., 2010) Therefore, it is very important to educate them about them the nutrition and explain to importance of eating a balanced diet. Nutrition education has become promising solution to improve eating habits. Adolescence is a period of time in which individuals begin to take care of themselves almost independently. There are higher chances for teens to start wrong eating habits in their life (Neumark-Sztainer et al., 1999). Although this age group is prone to various bad habits, it is at the same time an age of opportunity. Spreading awareness through nutrition education interventions during formative years is likely to have a positive effect on their current health. These positive benefits will continue into adulthood as a healthy choice for themselves and their future families (Shah et al., 2010). Nutrition education in this age group has significantly improved their nutrition-related behavior and even their academic achievement (SINGH et al., 2014).

Adolescence is a phase of transition between childhood and adulthood (Jaworska & MacQueen, 2015). Rapid developmental and behavioral changes occur with increased risk-taking behavior, reactivity, and emotional autonomy (Tramontana, 2013). Future patterns of behavior that affect adult health are formed during adolescence (Sawyer et al., 2012). Besides influencing their own future life, knowledge about healthy behavior affects their current/present family and also their future family after marriage in the case of teenage girls. Especially in terms of knowledge about healthy diet and nutrition, this is true because traditionally in Situbondo society, women cook and young girls assist their mothers in preparing meals for the whole family. Many times, teenage girls cook whole meals themselves for their families. Educating adolescent girls about nutrition can therefore have an effect on food choices for the whole family for a lifetime. We also observed that with increasing maternal educational status, the pretest scores of study subjects increased. Therefore, mother's education has an important role in knowledge related to nutrition in adolescent girls. This shows that the old adage "schools a woman and she educate a family" is true. In a study by Giuseppe Grosso et al. also, there was a similarly significant relationship between participants' nutritional knowledge and parental education level. Participants' mean score was 8.5 (standard deviation [SD] = 4.9) among students whose parents had no education and 12.3 (SD = 2.6) among those students whose parents had completed Health Education.(Grosso et al., 2013), and more importantly, knowledge, attitudes, and practices of adolescents are considered as important factors in predicting the process of epidemiological transition of a population. The lifestyle of today's adolescents, such as eating habits and reproductive behavior, is very important for the patterns of health and disease that will be observed in the future. Therefore, equipping youth with correct and practical knowledge about healthy and balanced food will have a broad impact on the country as well. Adolescence should not be considered only as an age of vulnerability but should be seen as an age of opportunity.

#### CONCLUSION

Most of the female students have not implemented a healthy lifestyle in their daily lives, most of the nutritional status of the female students are normal nutrition, most of the female students are anemic. From the results obtained, most of the female students were anemic and with normal nutritional status. Therefore there must be a solution to overcome this which is contained in the follow-up plan in the form of a balanced nutrition seminar for rice traders in the dormitory environment for female students, counseling for female students to adopt a healthy lifestyle, demonstrations on how to cook and process food correctly, giving free Fe tablets for female students and monitoring the nutritional status of female students on a regular basis.

#### **REFERENCES**

Alam, N., Roy, S. K., Ahmed, T., & Ahmed, A. M. S. (2010). Nutritional status, dietary intake, and relevant knowledge of adolescent girls in rural Bangladesh. *Journal of Health, Population and Nutrition*, 28(1), 86–94. https://doi.org/10.3329/jhpn.v28i1.45

nttps://doi.org/10.3329/jhpn.v2811.45

- Depkes. (2013). *Pedoman Umum Gizi Seimbang*.
- Depkes. (2016). Buku Saku Kesehatan Reproduksi Remaja (KRR) untuk usia 14-19 tahun.
- Dewi Andariya Ningsih. (2015). Partnership Dalam Pelayanan Kebidanan. *Proceeding Book*.
- Grosso, G., Mistretta, A., Turconi, G., Cena, H., Roggi, C., & Galvano, F. (2013). Nutrition knowledge and other determinants of food intake and lifestyle habits in children and young adolescents living in a rural area of Sicily, South Italy. *Public Health Nutrition*, *16*(10), 1827–1836. https://doi.org/10.1017/S1368980012 003965
- Heald, & EJ, G. (2011). Diet, Nutrition and adolescence. Dalam: Shills ME et al, penyunting Modern nutrition health and disease. Lippincott, Philadelphia.
- Jaworska, N., & MacQueen, G. (2015). Adolescence as a unique developmental period. *Journal of Psychiatry and Neuroscience*, 40(5), 291–293.
  - https://doi.org/10.1503/jpn.150268
- Kotecha, P., Patel, S., Baxi, R., Mazumdar, V., Shobha, M., Mehta, K., & Dkk. (n.d.). Pola diet remaja sekolah di perkotaan Baroda. *India. J Kesehatan Popul Nutr*.
- Lembaga Ilmu Pengetahuan Indonesia. (2000). Widyakarya Nasional Pangan dan Gizi VI.
- Neumark-Sztainer, D., Story, M., Falkner, N. H., Beuhring, T., & Resnick, M. D. (1999). Sociodemographic and personal characteristics of adolescents engaged in weight loss and weight/muscle gain behaviors: Who is doing what? *Prev Med*, 28, 40-50. https://experts.umn.edu/en/publication

- s/sociodemographic-and-personalcharacteristics-of-adolescents-enga
- Ningsih, D. A. (2017). Continuity of Care Kebidanan. *OKSITOSIN: Jurnal Ilmiah Kebidanan*, 4(2), 67–77. https://doi.org/10.35316/oksitosin.v4i 2.362
- Ningsih, D. A. (2021). Midwifery Women
  Center Care Pada Masa Nifas dalam
  Buku Asuhan Kebidanan Pada Masa
  Pandemi Covid-19 (P. Qorinah
  Estiningtyas Sakilah Adnani, M.Keb
  & D. R. Pangestuti (Eds.)). CV Penulis
  Cerdas Indonesia.
  https://drive.google.com/file/d/18SXF
  Do5VC58S6HNoVTghykHXh8dHR
  OQN/view?usp=sharing
- Organisasi Kesehatan Dunia, K. R. untuk A. T. (n.d.). Kesehatan dan Perkembangan Anak dan Remaja: Gizi Remaja tersedia dari: http://www.searo.who.int/entity/anak\_remaja/topik/nutrisi/nutrisi/en/(Terak hir diakses pada 10 April 2020).
- PDGMI. (n.d.). Perhimpunan Dokter Gizi Medik Indonesia (PDGMI) dan Perhimpunan Dokter Spesialis Gizi Klinik Indonesia (PDGKI) Buku saku gizi seimbang bagi remaja. In 2010.
- Ponpes Sukorejo. Pondok Pesantren Salafiyah Syafiiyah Sukorejo Situbondo. (n.d.).
- Sawyer, S. M., Afifi, R. A., Bearinger, L. H., Blakemore, S.-J., Dick, B., Ezeh, A. C., & Patton, G. C. (2012). Adolescence: a foundation for future health. *Lancet*.
- Shah, P., Misra, A., Gupta, N., Hazra, D. K., Gupta, R., Seth, P., Agarwal, A., Gupta, A. K., Jain, A., Kulshreshta, A., Hazra, N., Khanna, P., Gangwar, P. K., Bansal, S., Tallikoti, P., Mohan, I., Bhargava, R., Sharma, R., Gulati, S., ... Goel, K. (2010). Improvement in

- nutrition-related knowledge and behaviour of urban Asian Indian school children: findings from the 'Medical education for children/Adolescents for Realistic prevention of obesity and diabetes and for healthy aGeing' (MARG) intervention stud. *British Journal of Nutrition*, 104(3).
- SINGH, A., GROVER, K., & SHARMA, N. (2014). Effectiveness of nutrition intervention to overcome the problem of anaemia. *Food Science Research Journal*, 5(2), 184–189. https://doi.org/10.15740/has/fsrj/5.2/184-189
- Theresa A. Nicklas. (2002). Calcium Intake Trends and Health Consequences from Childhood through Adulthood. Journal of the American College of Nutrition, 22(5).
- Tramontana, M. G. (2013). The Adolescent Brain. *Cognitive and Behavioral Neurology*, 26(2), 100–101. https://doi.org/10.1097/wnn.0b013e318294860b