

THE INFLUENCE OF NUTRITION EDUCATION AND REPRODUCTIVE HEALTH ON THE KNOWLEDGE OF TEENAGERS IN BANGUN VILLAGE REJO TANJUNG MORAWA DISTRICT KABUPATEN DELI SERDANG YEAR 2025

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ABSTRAK

Background: Adolescents are an age group that is prone to various health problems due to a lack of knowledge about nutrition and reproductive health. The rapid physical, psychological, and social changes of adolescence require a good understanding of these two important aspects. This study aims to determine the influence of nutrition and reproductive health education on the level of knowledge of adolescents in Bangun Rejo Village, Tanjung Morawa District, Deli Serdang Regency. **Methods:** The study used a pre-experimental design with a one group pretest-posttest approach. The sample consisted of 30 adolescents who were selected purposively. The main instrument was in the form of a multiple-choice questionnaire consisting of 20 questions. Data were collected through a pretest, an educational intervention for two sessions, and a posttest three days after the intervention. Data analysis using the Wilcoxon test showed that there was a significant increase in adolescents' knowledge after being educated ($p < 0.05$). **Results:** These results show that nutrition and reproductive health education is effective in improving adolescent knowledge. This study recommends that educational institutions and health services continue to integrate adolescent health education programs as part of preventive efforts against nutrition and reproductive health problems. **Conclusion:** Nutrition and reproductive health education significantly increases the knowledge of adolescents in Bangun Rejo Village. This educational intervention has proven to be effective as a preventive effort in forming healthy living behaviors from an early age.

Keywords : Nutrition education; Reproductive health; teenagers; Knowledge; Public health

BACKGROUND

Adolescence is an important period in the human life cycle characterized by various physical, emotional, and social changes. In this phase, adolescents begin to explore their identity, face peer pressure, and begin to recognize and shape a lifestyle that will later affect long-term health. Therefore, attention to the health conditions of adolescents is very important, especially in terms of nutrition and reproductive health. Nutritional problems in adolescents are still an unresolved issue. Based on the results of the 2023 Basic Health Research (Riskesdas), the prevalence of anemia in adolescents, especially adolescent girls, reached 32%. Anemia in adolescents has a serious impact on learning concentration, immunity, and has a negative impact on future pregnancy if not treated early. On the other hand, adolescents' lack of understanding of reproductive health is also a challenge. Data from the National Population and Family Planning Agency (BKKBN) in 2023 shows that only 40% of adolescents understand the basic functions of the reproductive organs and the importance of maintaining reproductive health. This condition is inseparable from the lack of access to accurate and adolescent-friendly health information, as well as the lack of structured education in both the school, family, and community environments. This also happened in Bangun Rejo Village, Tanjung Morawa District, Deli Serdang

Regency, where many adolescents showed poor nutritional status and low understanding of reproductive health. For this reason, intervention through nutrition and reproductive health education is very important to increase adolescents' knowledge and awareness of the importance of maintaining body and reproductive health

METHODS

This study is a quantitative research with a pre-experimental design using a one group pretest-posttest approach. The research was conducted in June 2025 in Bangun Rejo Village. The population in this study is all adolescents aged 13 to 19 years in the village area. A total of 40 respondents were selected using purposive sampling techniques. The instrument used in this study was a multiple-choice questionnaire consisting of two parts, namely knowledge about nutrition and knowledge about reproductive health. This questionnaire was tested for validity and reliability first. Data was collected in two stages, namely before (pretest) and after (posttest) education was carried out. Education was carried out directly with an interactive approach using visual media and small group discussions. Data were analyzed using the Wilcoxon test because the results of the normality test showed that the data were not distributed normally. The analysis was performed using the latest version of SPSS software with a significance level set at $p < 0.05$.

RESULTS

The results showed a significant increase in knowledge scores between before and after education was provided. The average pretest score of the respondents was 58.25 with a standard deviation of 10.42, while the average posttest score increased to 82.10 with a standard deviation of 8.95. The results of the Wilcoxon test showed a significance value of $p = 0.000$ ($p < 0.05$), which means that there is a significant difference between knowledge before and after education.

DISCUSSION

The results of this study show that there is a significant increase in knowledge in adolescents after being given education about nutrition and reproductive health. Prior to the educational intervention, most respondents had a low to moderate level of knowledge, especially in terms of understanding the nutritional needs of adolescents, the importance of iron to prevent anemia, and knowledge of reproductive organs and functions. However, after education was provided through lecture methods, group discussions, and visual media, there was a significant increase in knowledge scores, which signaled the success of the intervention.

This increase is in line with the results of previous research by Sari et al. (2022), which stated that community-based education delivered in simple language and according to the local context is effective in improving adolescents' understanding of nutrition and reproductive health. In the context of Bangun Rejo Village, an educational

approach that is carried out directly and interactively has proven to be more effective than relying only on formal learning in schools that are still limited in scope.

Increased nutritional knowledge in adolescents contributes greatly to their ability to choose healthy foods as well as understanding the importance of a balanced diet for growth. This is very important considering that the rate of adolescent anemia in Indonesia is still high, especially in adolescent girls who experience menstruation. With an increasing understanding of iron, nutrient-rich food sources, and ways to prevent anemia, it is hoped that the health status of adolescents in this village can improve.

Meanwhile, reproductive health education is very important to equip adolescents with the right information from an early age. Before education, many adolescents did not understand the changes in the body during puberty, the function of the reproductive organs, and the importance of maintaining the cleanliness of the reproductive area. This low understanding can lead to risky behaviors in the future, such as not maintaining menstrual hygiene, easily believing in myths around sexuality, or even experiencing unwanted pregnancies.

After education, a significant increase in reproductive knowledge shows that adolescents actually have an interest in learning, but access to valid information and delivery methods are still lacking. With education, they become more open to discussion, understand puberty better, and have a more positive attitude towards personal health.

Overall, the success of this intervention underscores the importance of collaboration between educational institutions, health care facilities (such as health centers), and village governments in developing and implementing youth education programs. The educational method used in this study can be a model for similar programs in other regions, especially in rural areas, where access to information and adolescent health literacy is still low.

However, it should be acknowledged that this study has limitations, such as limited coverage of the area and short implementation time. For more comprehensive outcomes, follow-up studies with longer intervention durations as well as measurement of long-term impacts on adolescent behavior are strongly recommended.

CONCLUSION

This study shows that educational interventions regarding nutrition and reproductive health significantly increase adolescents' knowledge in Bangun Rejo Village. After being educated through interactive and directed methods, there is a real increase in understanding regarding the importance of balanced nutrition, anemia prevention, and the function and hygiene of the reproductive organs. These results confirm the importance of implementing structured health education among adolescents, especially in rural areas. Collaboration between educational institutions, health services, and village governments is needed to ensure the sustainability and expansion of similar programs for the overall improvement of adolescent health.

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CONFLICTS OF INTEREST

The author states that there is no conflict of interest in the implementation and preparation of this research.

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