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INTERACTIVE EDUCATION AS A STRATEGY TO IMPROVE ADOLESCENT REPRODUCTIVE HEALTH KNOWLEDGE OF SMAN 2 KENDARI

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ABSTRACT:

Adolescents are an age group that is vulnerable to various reproductive health problems due to rapid biological, psychological, and social changes. Low levels of knowledge can encourage the emergence of risky behaviors as well as reproductive health problems. This study aims to analyze the influence of interactive education on improving reproductive health knowledge in adolescents. The study uses a quantitative approach with a quasi-experimental *design of one group pre-test and post-test*. The research was carried out on students in class X-A SMAN 2 Kendari in December 2025 with a total of 25 students. The interventions provided were in the form of reproductive health counseling through interactive lectures and discussions, supported by PowerPoint media and posters. Knowledge level measurements were carried out using questionnaires before and after the intervention. Data analysis was carried out using the Wilcoxon Test. The results showed an increase in reproductive health knowledge, with the percentage of the good knowledge category increasing from 36% in the pre-test to 64% in the post-test. The results of statistical analysis showed that there was a significant difference between the pre-test and post-test values ($p < 0.05$). The conclusion of this study is that interactive education is effective in improving adolescent reproductive health knowledge. Therefore, it is necessary to strengthen the role of PIK-KRR in schools as

well as continuous supervision from schools to support the formation of healthy and responsible living behaviors in adolescents.

KEYWORDS: Adolescent reproductive health, interactive education, knowledge.

INTRODUCTION

Teenagers of Latin origin *Adolescere* which means growing towards maturity. The maturity in question is not only physical maturity, but also social and psychological maturity. The age limit for adolescents according to WHO is 10 to 19 years old while according to the Indonesian Ministry of Health is between 10 to 18 years old and unmarried [1]. Adolescence is a period of transition from childhood to adulthood which is characterized by changes that take place very quickly, both hormonally, biologically, psychologically, and socially. One of the main changes in this phase is the development of secondary sex signs, behavioral changes, and the dynamics of social relationships with the surrounding environment. Adolescents generally enter puberty at the age of 11 or 12, and this process is closely related to sexual maturity as well as reproductive ability. Globally, adolescents make up a large population, with about one-fifth of the world's population in the 10–19 age range, and most living in developing countries. In Indonesia, BPS data shows that adolescents aged 10–19 years make up 22% of the national population, consisting of 50.9% males and 49.1% females [2].

Puberty is a process of maturity and growth that has occurred when the reproductive organs begin to function and secondary sex characteristics begin to appear. Puberty is a period of transition and overlap. It is said to be a transition because puberty is in transition between childhood and adolescence and is said to overlap because some of the biological and psychological characteristics of children still possess it (Ekawati *et al*., 2021). During puberty, the reproductive organs are still in the developing stage and are not yet perfect. This makes it more susceptible to injury during sex. In addition, having sex at an early age increases the risk of psychological (psychiatric), emotional, cognitive and behavioral problems, teenage pregnancy, reproductive health problems, education and other social consequences [3].

During puberty, adolescents also begin to be curious about human sexual life. For this reason, they seek information about sex either through books, movies, or other images that are done in secret. This happens because most people still consider it taboo to talk about sexual issues

in daily life. This lack of understanding of adolescents will give rise to irresponsible adolescent sexual behavior, such as conducting experiments on commercial sex worker locations, performing promiscuous sex, performing oral sex, unwanted pregnancy and so on without consideration of the possibility of a less bright future for him [4].

According to the World Health Organization (WHO), the existence of good and correct information can reduce adolescent problems, one of which is reproductive health in adolescents. Adolescent problems in terms of lack of knowledge about sex and reproductive health will trigger unwanted pregnancies and lead to early marriage and abortion which can threaten the health and quality of life of adolescents. One of the efforts made by the government to overcome adolescent health problems is the Youth Care Health (PKPR) service which is managed by the Health Office at the Regency/City level run by the Health Center. In addition to preventive, curative and rehabilitative measures, services that can be provided to improve adolescent reproductive health include education and counseling, healthy life skills education, and *Peer Counsellor* [5].

Reproductive problems in adolescents need to be seriously handled, because these problems often arise in Indonesia, one of which is due to poor knowledge and behavior factors in preventing infectious disease infections, unwanted pregnancies, abortion, or even anemia [6]. As one of the efforts to increase adolescents' knowledge about reproductive health, research activities were carried out for this community at SMAN 2 Kendari with the target of class X-A. The implementation of research activities to the community on adolescent reproductive health is carried out through several stages, including pre-test work, material delivery, discussion or question and answer then evaluation in the form of post-test work.

METHODOLOGY

This study uses a quantitative approach with a cross-sectional quasi-experimental design. The research will be carried out in December 2025 at SMAN 2 Kendari, Kendari City, Southeast Sulawesi Province. The study respondents were 25 students in class X-A who were selected using *the total sampling technique*. The intervention provided is in the form of adolescent reproductive health education through counseling activities. The counseling method is carried out with interactive lectures and discussions supported by PowerPoint media and posters. Educational materials were delivered directly to respondents with the aim of increasing understanding of adolescent reproductive health. Data collection was carried out using a knowledge questionnaire consisting of 10 multiple-choice questions. The measurement of the

level of knowledge of the respondents was carried out before and after the provision of education through pre-test and post-test using the same instrument. The data obtained were analyzed univariously to describe the level of knowledge of the respondents and bivariously using the Wilcoxon Test to determine the difference in knowledge levels before and after the intervention. Statistical analysis was conducted with a confidence level of 95% ($p < 0.05$).

RESULTS AND DISCUSSION

This research activity to the community in the form of adolescent reproductive health counseling is a form of promotive effort that aims to increase participants' knowledge about the importance of maintaining the health of the reproductive organs, understanding physical and psychological changes during adolescence, preventing risky behaviors, and encouraging adolescents to adopt a healthy and responsible lifestyle. The implementation of the activity was carried out at SMAN 2 Kendari, Kendari City, Southeast Sulawesi in December 2025.

Criteria	**N**	**Introduce yourself**
Gender		
Male	9	36
Women	16	64
Age		
15	3	12
16	6	24
17	16	64
Total	25	100

Source: Primary Data, 2025

Based on Table 1 regarding the characteristics of the respondents, it can be seen that the majority of respondents in this study are female, namely 16 people or 64%, while male respondents amounted to 9 people or 36%. This shows that the participation of female students is more dominant than that of men. In addition, the age distribution of respondents also varied, with the age of 17 years being the largest group, namely 16 respondents or 64%. Respondents aged 15 years amounted to 3 people 12%, while 16 years old amounted to 6 people or 24%. Based on the data, it can be concluded that most of the respondents were at the age of 17, which suggests that this age group is the largest representation in the study. In total, the total number of respondents was 25 students, all of whom participated in the study.'

Table 1. Frequency Distribution of Students' Knowledge Levels.

Knowledge Level	Frequency	Introduce yourself
pre		
Positive	9	**36**
Negatives	16	**64**
Stuart T		
Positive	20	**80**
Negatives	5	**20**
Total	**25**	**100**

Source: Primary Data, 2025

Based on Table 2 regarding the frequency distribution of students' knowledge levels, it can be seen that before the intervention or learning (pre-test), most students had a level of knowledge in the Negative category, which was as many as 16 students or 64%. Meanwhile, only 9 students or 36% were in the Positive category. This condition shows that students' initial knowledge tends to be low and uneven. After being given an intervention or learning (post-test), there is a significant increase in the level of student knowledge. The number of students with Positive knowledge increased to 20 students or 80%, and the number of students with Negative category decreased to only 5 students or 20%. This change shows that most students experience an improvement in understanding after the learning process takes place. Overall, the comparison between the pre-test and post-test results shows a very clear increase in knowledge. Thus, it can be concluded that the learning program provided is effective in significantly increasing students' knowledge levels.

Table 2. Normality Test Results of Pre-Test and Post-Test Data.

Shapiro-Wilk				
Data	**Statistic**	**df**		**Sig.**
Pre-Test	**0.906**	**25**		**0.025**
Post-Test	**0. 849**	**25**		**0.002**

Based on Table 3 which presents the results of the normality test using Shapiro-Wilk for pre-test and post-test data, it can be seen that the significance value (Sig.) for pre-test data is 0.025 while for post-test data is 0.002 Both values are less than 0.05, so it can be concluded that both pre-test data and post-test data are abnormally distributed. Thus, the data do not meet the assumption of normality and can be analyzed using non-parametric statistical tests that require abnormal distribution. This shows that the variation of the data in the two measurements deviates significantly from the abnormal distribution, so that the subsequent

analysis process can be carried out more accurately and in accordance with the rules of parametric statistics.

Table 3. Analysis Results *Wilcoxon Test.*

	Asymp.Sig	**Z**
Pre-Test	0.001	-3.376
Post Test		

Based on table 4, the results of bivariate analysis using the wilcoxon test show that the Z value is -3.376. The Asymp.Sig value of 0.001 can be concluded that there is an influence on the knowledge of female students.

Adolescent health in general is a physical, mental, and social health state experienced by individuals during the transition from childhood to adulthood, including the ability to function optimally in daily activities and have healthy living behaviors. Adolescence is characterized by rapid biological, psychological, and social changes that make this group vulnerable to various health problems such as anemia, nutritional disorders, reproductive health, substance abuse, and mental health problems [7] .

Adolescents need special attention because the healthy living behaviors formed during this period will have a direct effect on health in adulthood. In addition, low knowledge, peer pressure, and limited access to health services can exacerbate adolescent health problems. Therefore, health promotion efforts, health education, and environmental support are essential to maintain the overall health of adolescents [8].

In conducting counseling, we use visual media with posters and power points which are considered as educational tools that are quite effective because they present information in a concise, easy-to-understand format. This makes the media a supporting means that strengthen the delivery of messages in counseling activities. This intervention research strengthens the evidence that poster media and power points are one of the efficient communication strategies in conveying health messages, including in efforts to prevent reproductive diseases in adolescents.

The obstacle found during the activity was the limited projector equipment prepared by the school so that the delivery of material could not use the Microsoft power point that had been provided. However, this does not hinder the implementation of the activity because the

material can be delivered directly by the presenter and with the help of a laptop containing power points, as well as posters, so that it can provide an overview for participants about the material presented. The implementation of discussions or questions and answers is also quite helpful in strengthening the participants' understanding as evidenced by the results of the evaluation showing an increase in student knowledge when compared to the knowledge before counseling was carried out. In addition, the duration of counseling is quite short so that it is not possible to measure behavior change. However, this good knowledge is expected to be a provision for participants in implementing healthy behaviors, especially adolescent reproductive disease prevention behaviors.

CONCLUSION

The conclusion of community research activities in the form of adolescent reproductive health counseling at SMAN 2 Kendari showed that the education provided was able to significantly increase students' knowledge, characterized by an increase in the category of knowledge from 36% before counseling to 64% after post-test and a decrease in the category of knowledge from less than 64% to 36%. The interactive lecture method supported by PowerPoint media and posters has proven to be effective in helping the understanding of the material despite the limitations of facilities, especially projectors. The support of the school and the enthusiasm of the participants also played an important role in the smooth running of the activity, which was reflected in the students' activeness in discussions, questions and answers, and participation in filling out the pre-test and post-test. Obstacles in the form of limited facilities and implementation time cause the evaluation to only be focused on improving knowledge, so that changes in reproductive health behavior cannot be assessed. However, the increase in knowledge gained is expected to be the basis for the formation of healthy living behaviors and efforts to prevent reproductive health problems in adolescents.

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