

The Relationship Between Reproductive Health Knowledge Before and After Educational Intervention in Students of MTs Alwasliyah Simpang Merbau

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ABSTRACT

This study aims to analyze the relationship between reproductive health knowledge among students at MTs Alwasliyah Simpang Merbau before and after educational intervention. Reproductive health is an important aspect that affects the quality of life of adolescents, and adequate knowledge is necessary for making appropriate decisions. The research method used was quantitative with a pre-test and post-test design, involving 55 students who participated in an educational intervention program consisting of seminars and interactive discussions. Data was collected through a questionnaire measuring reproductive health knowledge before and after the intervention. The analysis results showed a significant increase in students' knowledge after the intervention, with the paired sample t-test indicating a significant difference between the pre-test and post-test results ($p < 0.001$). Despite the improvement, some students still had "poor" understanding after the intervention, highlighting the need for ongoing educational programs. This study recommends the development of more engaging materials, training for educators, and parental involvement in the educational process. The findings underscore the importance of reproductive health education among adolescents and the effectiveness of educational interventions in enhancing their awareness.

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INTRODUCTION

Reproductive health is an important aspect of human life that affects the quality of life of individuals, especially among adolescents. Adequate knowledge about reproductive health is essential to help adolescents understand the physical and emotional changes they are experiencing, as well as to make informed decisions about their health. In Indonesia, reproductive health issues among adolescents remain a significant challenge, with numerous cases linked to a lack of knowledge, such as unintended pregnancies, sexually transmitted infections, and mental health issues.⁽¹⁾ Based on the results of a preliminary study⁽²⁾ it was found that female adolescents at SMA PGRI 1 Kota Bekasi often experience vaginal discharge, there is no education about reproductive health, no education about vaginal discharge, and no education about maintaining genital hygiene. The only education available is in science classes, which only cover the reproductive organs. Therefore, the researcher is interested in investigating whether there is a significant relationship between the level of

knowledge about external genital hygiene and the occurrence of vaginal discharge (flour albus) among 12th-grade female students at SMA PGRI 1 Kota Bekasi in 2023. Reproductive health education in schools is one solution to improve students' knowledge and awareness of reproductive health issues. Effective educational interventions can help students understand the importance of maintaining reproductive health and provide them with the information they need to make healthy decisions. However, the effectiveness of these educational programs needs to be evaluated regularly to ensure that educational goals are being met.⁽³⁾

MTs Alwasliyah Simpang Merbau is an educational institution committed to enhancing reproductive health knowledge among its students. Through a specially designed educational intervention program, it is hoped that students can gain better knowledge about reproductive health. This study aims to analyze the relationship between students' reproductive health knowledge before and after the educational intervention, as well as to evaluate the effectiveness of the program. In this study, we will use quantitative methods to collect and analyze data. Quantitative methods allow us to objectively measure changes in students' knowledge and provide a clear picture of the impact of the educational intervention. By using univariate tests and paired sample t-tests, we will analyze the pre-test and post-test data to determine whether there are significant differences in students' reproductive health knowledge before and after the intervention.⁽⁴⁾ Supported by other research findings, this study confirms the effectiveness of education in improving adolescents' knowledge. Before receiving education, the average knowledge score was still low, but after the education program, there was a significant improvement. This indicates that educational interventions are highly effective as one strategy to reduce reproductive health risks among adolescents, such as early pregnancy, abortion, and sexually transmitted infections. Educational programs that incorporate methods such as lectures, discussions, and interactive media are recommended to achieve optimal results in changing adolescents' attitudes and behaviors.⁽⁵⁾

METHOD

This research uses a quantitative approach with a pre-test and post-test design. The research subjects consist of 55 students from MTs Alwasliyah Simpang Merbau. The sampling was conducted through purposive sampling, where the students involved in the research are those willing to participate in an educational intervention program about reproductive health. The instrument used in this study is a questionnaire consisting of several questions related to reproductive health knowledge. The research procedure begins with conducting a pre-test for all respondents to measure their level of knowledge about reproductive health before the educational intervention. After the pre-test, the educational intervention was carried out in the form of a seminar and interactive discussion involving the students. The material presented includes basic information about reproductive health, as well as ways to maintain good reproductive health.⁽⁶⁾

After the educational intervention is completed, a post-test is conducted to measure the change in students' knowledge after participating in the educational program. The data obtained from the pre-test and post-test is then analyzed using univariate tests to see the frequency distribution and percentage of each category of knowledge. Next, a paired sample t-test is used to determine if there is a significant difference between the pre-test and post-test results. The data obtained from the questionnaire will be analyzed using statistical software. A univariate test will be performed to describe the characteristics of the respondents and the distribution of their knowledge before and after the intervention. The paired sample t-test will be used to test the hypothesis that there is a significant difference in students' reproductive health knowledge before and after the educational intervention.⁽⁷⁾

RESULTS

Results of the univariate test of the gender of the respondents of Mts Alwasliyah Simpang Merbau students.

Table 1. Frequency Distribution of Respondents Based on Gender

Gender	Frequency	(%)
Male	31	56,4
Female	24	43,6
Total	55	100,0

Table 1 presents the frequency distribution of the respondents' ages. There are 55 respondents, where 31 (56.4%) are male and 24 (43.6%) are female. The cumulative percent shows that all respondents are included in the analysis. The proportion of male respondents is higher than that of female respondents.

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Table 2. Distribution of Average Pair Comparisons Before and After the Intervention

	Mean	Standar Deviasi	<i>p-value</i>
Pre-post	-12,182	22,169	0,000

Table 2 presents the frequency distribution of the respondents' ages. The results of this test indicate an average difference of -12.182 with a standard deviation of 22.169. The significance level (*p-value*) is below 0.001, which means the results are significant, so it can be concluded that the intervention carried out contributed significantly.

Results of the Pre-test on the Relationship of Reproductive Health Knowledge Before and After Educational Intervention in Students of MTs Alwasliyah Simpang Merbau

Table 3. Distribution of Test Results Before Intervention

Category	Frequency	(%)
Not Good	36	65,5
Good	19	34,5
Total	55	100,0

Table 3 presents the Distribution Of Test Results Before Intervention. Of the 55 respondents, there were 36 (65.5%) with the meaning 'poor' and 19 (34.5%) with the meaning 'good', and the results indicate that the majority of the respondents above have an understanding that needs to be improved, as the proportion of poor scores indicates the need for improvement in learning or intervention to design effective programs.

Results of the univariate test of the post-test relationship of reproductive health knowledge before and after the educational intervention in students of MTs Alwasliyah Simpang Merbau

Table 4. Distribution of Test Results After Intervention

Category	Frequency	(%)
Not Good	24	43,6
Good	31	56,4
Total	55	100,0

Table 4 presents the Distribution Of Test Results after Intervention. Of the total 55 respondents, 24 (43.6%) had 'poor' results and 31 (56.4%) had 'good' results, indicating an improvement from the pre-test to the post-test. Furthermore, the number of respondents with 'good' results shows that the teaching activities had a positive impact.

DISCUSSION

In this study, there are a total of 55 respondents consisting of 31 males (56.4%) and 24 females (43.6%). This proportion indicates that the number of male respondents is higher than that of females. This can be a consideration in further analysis, especially in the context of reproductive health education, which may have differences in understanding and acceptance between genders. The difference in the number of male and female respondents can influence the research results. In the context of reproductive health education, it is important to understand how gender can affect knowledge and attitudes towards this topic. (8)

Previous research has shown that men and women often have different perspectives on reproductive health, which can affect the effectiveness of educational interventions. Univariate Pre-test Results. Other research findings conclude that the level of knowledge among adolescents about reproductive health in high schools in Kubu Raya Regency is good. Furthermore, identification of the level of knowledge based on gender shows that more girls than boys have good knowledge. (9)The univariate test results for the pre-test indicate that of 55 respondents, 36 (65.5%) had a "poor" understanding of reproductive health, while 19 (34.5%) had a "good" understanding. This data shows that the majority of respondents still need improvement in their knowledge about reproductive health.

The high percentage of respondents with 'poor' understanding indicates an urgent need for educational intervention. This suggests that the current educational programs may not be effective enough in conveying the necessary information. Therefore, it is important to design more interactive and engaging programs to enhance student understanding. Previous studies have concluded that adolescents' understanding of reproductive health is still poor, yet understanding reproductive health is very important for adolescents. . (10)

Results of the Univariate Post-test. After the educational intervention, the results of the univariate post-test showed significant changes. Out of 55 respondents, 31 (56.4%) now have a 'good' understanding, while 24 (43.6%) still fall into the 'poor' category. This indicates a significant improvement in reproductive health knowledge among students. The increase from pre-test to post-test shows that the educational intervention was successful in making a positive impact. This suggests that the teaching methods used in the intervention were effective in enhancing students' understanding. However, there are still 43.6% of respondents who have a 'poor' understanding, indicating that there is still room for improvement and further development in the educational program.

In addition, social and environmental factors play an important role in influencing adolescents' reproductive health knowledge and behavior. Other studies highlight that support from parents and health workers is essential for adolescents to accept and apply the education provided in their daily lives. With a supportive environment, adolescents are more courageous in asking questions and accessing accurate information, thereby increasing their level of reproductive health knowledge. (11)

Furthermore, Yenny's research found that the use of interactive learning methods such as group discussions and simulations is very effective in forming a deep understanding among adolescents. This method allows students to actively participate and clarify any misunderstandings that may exist, so that reproductive health education is not only theoretical but also applicable in their lives. (12)

Results of the Paired Samples Test. The results of the paired samples t-test show an average difference of -12.182 with a standard deviation of 22.169. The significance level (p-value) is $0.001 < 0,05$, which means the results are significant. This indicates that the intervention carried out significantly contributed to the increase in students' reproductive health knowledge. These results indicate that there is a significant difference in reproductive health knowledge before and after the intervention. With such a low p-value, we can conclude that the educational intervention not only improved students' knowledge but also demonstrated that the methods used in that intervention were effective. This is important to consider in designing educational programs in the future. (13)

The results of this study are supported by research (14) that reproductive health education delivered through lectures and group discussions significantly improved students' knowledge. Pre-test and post-test scores showed a significant increase with $p < 0.05$. The study also highlighted the importance of interactive approaches in increasing students' interest, understanding, and participation in reproductive health topics.

Effective health education and intervention programs that focus on raising awareness of the importance of genital hygiene and safe sexual behavior are essential to reduce the risk of infection. Therefore, collaborative efforts between the government, educational institutions, and the community are crucial to improving knowledge and practices related to reproductive health among adolescents. (15)

CONCLUSION

This research aims to analyze the relationship between the reproductive health knowledge of MTs Alwasliyah Simpang Merbau students before and after the educational intervention. Reproductive health is an important aspect that affects the quality of life of adolescents, and adequate knowledge is essential to help them make appropriate decisions regarding health. Through a quantitative approach, this study involved 55 students participating in an educational intervention program in the form of seminars and interactive discussions. Before the intervention, students were given a pre-test to measure their level of knowledge, followed by the educational intervention, and then a post-test was conducted to evaluate knowledge changes. The analysis results show a significant increase in students' reproductive health knowledge after participating in the intervention. The paired sample t-test revealed a significant difference between pre-test and post-test results, with a p-value indicating that the educational intervention successfully enhanced students' understanding. However, there are still some students who have a 'poor' understanding after the intervention, indicating the need for ongoing educational programs. This study highlights the importance of reproductive health education among adolescents and the effectiveness of educational interventions in increasing their awareness.

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