

Research Article

The Effect of Reproductive Health Education on Adolescent's Attitudes Toward Premarital Sexual Behavior at SMK Ma'arif NU 1 Cilongok

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Abstract: Premarital sexual behavior among adolescents remains a reproductive health concern that requires attention. Reproductive health education is expected to influence adolescents' attitudes toward risky sexual behavior. This study aimed to determine the effect of reproductive health education on adolescents' attitudes toward premarital sexual behavior at SMK Ma'arif NU 1 Cilongok. This research used a quantitative analytic method with a pre-experimental one group pre-test and post-test design. The sample consisted of 209 respondents selected using a total sampling technique. The instrument used was an attitude questionnaire, and data analysis was performed using the Wilcoxon Signed Rank Test. The results showed that prior to receiving education, most respondents were in the moderate attitude category (92.8%). After the intervention, most respondents shifted into the high attitude category (99.5%). Statistical analysis showed a p-value of 0.000, indicating a significant effect of reproductive health education on adolescents' attitudes regarding premarital sexual behavior. It is recommended that schools conduct reproductive health education regularly to improve attitudes and awareness among adolescents in preventing risky sexual behavior.

Keywords: Adolescents; Attitudes; Premarital Sex; Reproductive Health; Risk Behavior

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1. Introduction

Numerous changes occur in an individual's body, mind, and social environment during adolescence. Curiosity, particularly regarding sexuality, tends to increase during this developmental stage. Adolescents often engage in irresponsible premarital sexual behavior due to insufficient knowledge of reproductive health (Setiawati et al., 2022). Limited understanding of healthy sexuality is closely associated with involvement in premarital sexual activity, which is driven not only by biological needs but also by psychosocial factors. Consequently, the number of adolescents engaging in premarital sexual intercourse continues to rise (Anderson et al., 2021). According to data documented by the World Health Organization (2022), 9.3% or approximately 3.7 million adolescents reported having had sexual intercourse, indicating that sexual behavior among adolescents remains relatively high in both developing and developed countries. Adolescent reproductive health is therefore a pressing global issue.

In 2023, the Central Java Provincial Office of the National Population and Family Planning Board conducted a survey of adolescents and found that, on average, first sexual intercourse occurred between the ages of 15 and 19. Among those reporting sexual activity, 59% were female and 74% were male. More than half of adolescents had engaged in premarital sexual intercourse, placing them at risk of early motherhood (BKKBN, 2021).

In 2021, the Banyumas Statistics Office reported a population of 128,614 in Cilongok District. According to the 2023 age distribution data, approximately 9,320 adolescents, representing 7.24% of the total population, were between 15 and 19 years old. With such a substantial adolescent population, Cilongok District represents a strategic setting for research on the mental and physical health of this demographic group.

Several variables influence adolescents' sexual attitudes prior to marriage. Mundhiro et al. (2021) explain that opinions and behaviors in social contexts are shaped by cultural background, exposure to various media, personal experiences, educational background, religious values, and emotional conditions.

The rise in adolescent marriage as a consequence of premarital sexual activity is only one of the many adverse outcomes of this trend, which has broad implications for women's emotional and reproductive well being. Data from the Intercensal Population Survey (2022) indicate that up to three thousand women aged 20 to 24 were first married before the age of fifteen. In contrast, one out of every one hundred men in both urban and rural areas married for the first time between the ages of twenty four and thirty five.

Pregnancy complications such as preterm labor, hemorrhage, or even maternal death are more likely to occur in young women whose bodies are not yet physically prepared for pregnancy and childbirth (Lestari et al., 2025). Early marriage also has significant psychological consequences, including social isolation and difficulty integrating into broader society due to stigma and prejudice within local communities. Adolescents who engage in premarital sexual activity are also at risk of unintended pregnancy. Unintended pregnancy remains a major public health concern. The United Nations Population Fund (2013) reported 20,000 births per day among girls under 18 years of age, 2.5 million abortions annually among adolescents, and up to 70,000 adolescent deaths each year due to pregnancy related complications. In Indonesia, of the 94,270 women experiencing out of wedlock pregnancy, 20% were adolescents, and 21% of them underwent abortion (Wakhidah et al., 2017).

Sexually transmitted infections and unintended pregnancies represent serious reproductive health challenges. Sexually transmitted infections are more prevalent among individuals with multiple sexual partners. Adolescents constitute a particularly vulnerable demographic group; as reported by the CDC, their risk of contracting sexually transmitted infections is higher than that of adults. Globally, the 15 to 24 age group has the highest rates of sexually transmitted infections. Each year, approximately 374 million new cases are reported worldwide, with adolescents accounting for nearly half, around 20 million cases (UNFPA and WHO, 2020). These data demonstrate that prevalence among adolescents remains alarmingly high.

Adolescents can receive support for health related behaviors through programs focusing on prevention, promotion, rehabilitation, and treatment (Kartikasari, 2013). Educational interventions generally employ three approaches: individual, group, and mass strategies. In this context, classroom based instruction using lecture methods in large groups is considered appropriate. Ramdhan et al. (2024) found that students in Phase E at SMA Cahaya Sakti showed a significant improvement in their understanding of sexually transmitted diseases after receiving health education through lectures ($p = 0.001$).

Based on 2024 Dapodik data from SMK Maarif NU 1 Cilongok, the school has 1,383 students with a relatively balanced gender distribution, indicating the need for targeted intervention. Understanding adolescents' perspectives on premarital sexual activity is essential, as their attitudes and behaviors are shaped by exposure to popular culture, digital information, and traditional values within this semi urban setting. SMK Maarif NU 1 Cilongok was selected as the research site due to its commitment to academic activities and its capacity to collaborate in implementing sustainable health education programs.

Preliminary survey data collected on May 7, 2025, through interviews with the Vice Principal for Student Affairs, a guidance and counseling teacher, and ten students revealed that the school had received reproductive health resources from external institutions such as community health centers. Nevertheless, behavioral issues persist. In 2024, a female student dropped out due to unintended pregnancy. Additionally, smoking and other forms of juvenile delinquency remain common.

Further in depth interviews with ten students confirmed the seriousness of the situation: eight out of ten, or 80%, reported being in a romantic relationship. Among these students, 75% acknowledged regularly engaging in physical contact such as holding hands, hugging, or leaning on each other, perceiving such behavior as a normal expression of emotional intimacy.

Given the current school climate and the urgency of preventive measures, it is crucial to implement focused educational initiatives to shape healthier attitudes toward sexual behavior among adolescents. The lecture method is a viable option, having demonstrated effectiveness in previous studies. Putri and Ratnawati (2018) found that lectures were beneficial in modifying attitudes. Similarly, Prasetyawati et al. (2023) reported that after receiving instruction, all

71 students, or 100%, demonstrated improved knowledge categories and positive attitudes toward premarital sex. Considering the importance of adolescent attitudes and the potential impact of educational interventions, this study seeks to examine the effect of health education lectures on adolescents' attitudes toward premarital sexual behavior.

2. Literature Review

Reproductive Health

Reproductive health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health means that people are able to have a satisfying and safe sex life and that they have the capacity to reproduce and the freedom to decide whether, when, and how often to do so (World Health Organization, 2022).

Reproductive health encompasses the entire human lifespan, from birth to death. A lifecycle approach is used in reproductive health care delivery to achieve clear goals and well-defined performance components. This approach takes into account the reproductive rights of each individual and is integrated and implemented with high quality, consistent with available service programs.

Adolescents' Attitudes

The process of transition from childhood to adulthood is also called adolescence. Adolescence typically begins at age 9, with a division between age 12 for girls and age 14 for boys. During adolescence, a person is expected to be able to control their emotions, have a strong mentality, and maintain their physical health. The growth process in adolescence involves things that can be counted and measured (qualitative), for example, height and weight. The process of adolescent development involves quantitative and qualitative processes, for example, adolescent mindsets, adolescent psychology, and how adolescents manage their emotions (Utami & Ayu, 2020).

During middle adolescence, children begin to explore their identity, often leading to promiscuity due to their inability to filter and assess negative behavior in their environment. This transition then progresses to late adolescence, which occurs around the ages of 18 to 21. Late adolescence marks the end of a child's journey to discover their identity. Children are now capable of making decisions and beginning to learn to determine their own direction in life. During late adolescence, children can establish their own mindset and direction in life (Utami & Ayu, 2020).

Premarital Sexual Behavior

Premarital sexual behavior is any behavior driven by sexual desire, whether done alone, with the opposite sex, or the same sex without the bonds of marriage according to religion. Healthy and adaptive sexual behavior is carried out in a private place in a legal bond according to law, while premarital sexual behavior is sexual behavior carried out without going through an official marriage process according to law or according to each person's religion and beliefs (Andriani, 2022, in Panghiyangani & Erlyani 2024).

Adolescent sexual behavior is a person's reaction to stimuli, whether directly or indirectly observable between men and women, as a manifestation of adolescent feelings of love. In this case, sexual behavior in adolescents can be manifested in various behaviors, ranging from feelings of attraction to dating, flirting, and sexual intercourse (Sarwono, 2010 in Panghiyangani & Erlyani 2024).

3. Research Method

This study employed a quantitative approach grounded in positivist philosophy, aiming to test hypotheses through structured data collection and statistical analysis (Sugiyono, 2023). This approach is appropriate for assessing the effectiveness of educational interventions in shaping adolescents' attitudes.

The research design was pre experimental using a one group pretest posttest model, in which measurements were conducted before and after the educational intervention within the same group. This design is commonly applied in educational research because it enables researchers to observe changes resulting from an intervention even in the absence of a control group (Trianasari et al., 2024).

This design aligns with the objective of the study, which was to evaluate the impact of reproductive health education on adolescents' attitudes toward premarital sexual behavior at SMK Maarif NU 1 Cilongok. The study began with a pretest to measure students' initial attitudes, followed by reproductive health education delivered through the lecture method, and concluded with a posttest to assess changes in attitudes after the intervention.

According to Sugiyono (2023), population refers to a group of subjects or objects with specific characteristics determined by the researcher for study and conclusion. The population in this study consisted of 439 eleventh grade students at SMK Maarif NU Cilongok. To ensure

representativeness, a sampling technique was applied (Sugiyono, 2023). The sample was selected based on inclusion criteria, while individuals meeting exclusion criteria were omitted. A total of 209 respondents were required, representing four academic majors: Accounting, Office Management, Motorcycle Engineering, and Visual Communication Design. Because the number of students in each major differed, stratified random sampling was used to proportionally allocate the sample.

Data collection techniques refer to procedures used to obtain accurate and reliable information from respondents. In this study, data were collected using a questionnaire consisting of 17 items. According to Sugiyono (2023), univariate analysis is used to describe the characteristics of each research variable. In this study, univariate analysis was applied to respondent demographics such as gender and age, as well as to the attitude variable concerning premarital sexual behavior.

To examine the effect of health education on adolescents' attitudes toward premarital sexual behavior, bivariate analysis was conducted to compare pre intervention and post intervention results. The Wilcoxon signed rank test was used for data analysis. This non parametric test is designed to compare paired ordinal data before and after treatment and was processed using statistical software. The level of significance was set at $\alpha = 0.05$. Health education was considered to have a significant effect on adolescents' attitudes if the p value was less than 0.05.

4. Results and Discussion

Results

The results of the distribution of research data that have been carried out by researchers and data processing has been carried out based on research variables, as follows:

Table 1. Frequency Distribution of Respondents' Age Characteristics

Variable	Frequency	Presentation (%)
Age (years)		
15 years	22	10,5
16 years	156	74,6
17 years	31	14,8
Total	209	100

Based on Table 1, the results of computerized research data processing for the age variable are shown to be dominated by the 16-year-old age group, with 156 respondents (74.6%). The youngest respondent was 15 years old, and the oldest was 17 years old.

Table 2. Frequency Distribution of Respondents' Gender Characteristics

Variable	Frequency	Presentation (%)
Gender		
Male	90	43,1
Female	119	56,9
Total	209	100

Based on table 2, it is known that the results of processing research data using a computer system on the gender variable of the research group are dominated by 119 female students (56.9%) and 90 male students (43.1%).

Table 3. Distribution of Data on Pre-Test Scores of Adolescent Attitudes towards Premarital Sexual Behavior

Variable	f	%	Mean	Median	Min-Max
Result Category			49,08	49	38-56
Permissive	118	56,5			
Non-Permissive	91	43,5			
Total	209	100			

Based on table 3, it is known that the results of processing research data using a computer system on the pre-test value variable of adolescent attitudes regarding premarital sexual behavior are mostly in the permissive category with 118 respondents (56.5%), with an average value (mean) of 49.08 and a middle value (median) of 49. The lowest category value is 38 and the highest category value is 56.

Table 4. Distribution of Data on Post-Test Scores of Adolescent Attitudes towards Premarital Sexual Behavior

Variable	f	%	Mean	Median	Min-Max
Result Category			58,97	59	50-66
Permissive	81	38,8			
Non-Permissive	128	61,2			
Total	209	100			

Based on Table 4, the results of the research data processing using a computer system for the post-test scores of adolescent attitudes towards premarital sexual behavior are predominantly in the non-permissive category, with 128 respondents (61.2%), with a mean of 58.97 and a median of 59. The lowest score was 50, and the highest was 66.

Bivariate analysis in this study used the Wilcoxon ranks test to determine the significance of the differences between the two paired data groups, namely the pre- and post-test, in the respondent group. The following is the data presentation using the Wilcoxon ranks test:

Table 5. The Influence of Reproductive Health Education on Adolescents' Attitudes About Premarital Sexual Behavior

			N	Mean Rank	Sum of Ranks	Z	P-Value
Adolescent attitude scores on post test – Adolescent attitude scores on pre test	Negative Ranks		0 ^a	0,00	0,00	-12,461	0,000
	Positive Ranks		206 ^b	103,50	21321,00		
	Ties		3 ^c				
	Total		209				

Table 5 shows the results of the Wilcoxon test. The negative rank, or negative difference between adolescents' attitudes toward reproductive health scores in the pre-test and post-test, is 0, including the N value, mean rank, and sum of ranks. This indicates that no students experienced a decrease in attitude scores between the pre-test and post-test.

Furthermore, the positive rank, or positive difference between adolescents' attitudes toward reproductive health scores in the pre-test and post-test, has 206 positive data points (N), indicating that 206 students experienced an improvement in their attitudes toward reproductive health based on their pre-test and post-test scores. The mean rank/average increase was 103.50, with a sum of ranks of 21,321.000.

There was a close relationship between the pre-test and post-test scores of three students, indicating similar scores on both assessments. With a p-value of 0.000 ($p < 0.05$), the Wilcoxon signed-rank test revealed a calculated Z-score of -12.461. Because of this difference between the pre-test and post-test results of the intervention group.

Discussion

Table 1 shows that the average age of adolescents who completed the survey at SMK Ma'arif NU 1 Cilongok was 16 years old. Children and adolescents between the ages of 10 and 24 are considered adolescents by the National Population and Family Planning Agency (BKKBN). The study participants were adolescents between the ages of 15 and 17, and the results indicate that this age group engages in deviant sexual behavior.

This is due to the fact that, as researchers have shown, both good and bad behaviors tend to develop throughout adolescence. Adolescents are naturally curious, so they are always looking for new ways to learn about the world and apply what they have learned. Theories suggest that adolescence is a time between childhood and adulthood. During this period, adolescents are still trying to figure out who they are. As a result of internal struggles and external social pressures, they may engage in riskier sexual behavior. The ability to reproduce is one of the many rapid physical changes adolescents experience as they approach puberty (Cahyani et al., 2019).

The majority of middle adolescents were found to be between 15 and 17 years old, according to a previous study Ratna & Fajriansi (2024), which included 79 respondents (95.2%). This aligns with the findings of Siregar (2020), who also observed the following age distribution: the largest proportion was among those aged 16–17 (14 respondents, or 44.1% of the total), while the lowest proportion was among those aged 18–24 (three respondents, or 8.8% of the total).

Sexual urges often begin to emerge between the ages of fourteen and sixteen, or, as is commonly believed, middle adolescence. Physical maturity, menstruation, and dreams about wet things are typical characteristics of middle adolescence (Soetjiningsih, 2018).

According to CDC statistics, a quarter of adolescent girls (those between the ages of 15 and 24) have had premarital sex with a man. By age 17, 53% of them have had premarital sex, and by age 20, 79% have. According to the CDC (2020), the percentage of adolescent boys who have had premarital sex increases from 25% at age 15 to 48% at age 17, and to 77% at age 20. Several variables, including parent-adolescent relationships, low self-esteem, negative social pressure, and exposure to pornographic media, influence sexual behavior among adolescents (Widiyanto et al., 2013).

Table 2 displays the results of the study, which show that 119 students, or 56.9% of the total, were female. According to the hypothesis Notoatmodjo (2012), cited in Mahmud & Risdiana (2023), a person's health-related behavior is influenced by their gender. These results are consistent with research by Khoiroh et al. (2025), who surveyed students at Sultan Agung High School in Semarang and reported that 42.3% were male and 57.6% were female. This is in line with previous research, which also showed that there were more females than males among the respondents (88.2% vs. 11.8%, or a total of 30 students) (N. Y. Siregar et al., 2025).

Dwimawati & Anisa (2018) found that compared to male students, female students had more information about reproductive health. It is well known that males are more interested in sexual interactions, while females are more focused on developing caring attitudes in relationships with males. Consequently, males are more likely to show signs of sexual interest than females. This is supported by the findings of Dounovan et al. in Santrock (1993), who found that compared to male adolescents, female adolescents value personality traits more and are more likely to provide personal information. According to Khoiroh et al. (2025), teenage girls are more comfortable opening up about their experiences and emotions compared to teenage boys.

Adolescent Attitudes Toward Premarital Sexual Behavior Before Reproductive Health Education at SMK Ma'arif NU 1 Cilongok

According to Table 3, of the total number of adolescents who took the pre-test, 91 were in the non-permissive group, while 118 were in the permissive category, reflecting their opinions regarding premarital sexual behavior. The researchers can conclude with high confidence that the non-permissive findings were due to the respondents' prior education or an internal variable due to the pre-test, which was administered to determine respondents' baseline knowledge and attitudes before exposure to the material.

This indicates that most adolescents considered physical contact between partners (such as kissing, hugging, or holding hands) completely acceptable during dating, and only 43.5% of adults were aware of adolescents' perspectives on premarital sexual behavior. These findings suggest that adolescents held negative views of premarital sexual behavior before receiving reproductive health education. The results indicate that among the four possible responses, adolescents' attitudes toward premarital sexual behavior were positively correlated with higher scores. Conversely, lower scores indicated that adolescents held unfavorable views of premarital sexual behavior. A person's attitude can be defined as their tendency to engage in or refrain from a particular behavior (Lusianti et al., 2021). Thus, attitude is not only an individual's subjective mental state but also a unique and personal conscious thought process. Beliefs about the likelihood of desirable or undesirable outcomes shape an individual's attitude toward a behavior, and vice versa: people act in response to perceived favorable outcomes of their actions.

Orientation or predisposition toward behavior is the sexual response a person exhibits after viewing, hearing, or reading pornographic material and news, photographs, and/or images. In this context, "attitude" refers to how adolescents feel about sexual behavior. Due to a combination of factors, including a lack of education about reproductive health among adolescents undergoing sexual maturation and parents' failure to provide adequate guidance, many of these young people struggle to regulate their sexual urges and, in particular, the risks associated with engaging in premarital sexual activity (Nurafriani et al., 2022). Sarwono (2010) argues that people acquire attitudes through social learning, defined as the process by which individuals acquire knowledge from others.

Adolescent Attitudes Toward Premarital Sexual Behavior After Reproductive Health Education at SMK Ma'arif NU 1 Cilongok

Table 4 shows that only 81 adolescents remained in the permissive group after the post-intervention test regarding their attitudes toward premarital sexual behavior, while 128 adolescents (61.2%) tended toward the non-permissive side. A median score of 59 and a mean of 58.97 were recorded. A maximum score of 66 was achieved, with a minimum score of 50.

The survey found that the majority of respondents considered premarital sexual behavior to be non-permissive. The majority of respondents had a good understanding of reproductive health concepts, reinforcing the notion that premarital sexual activity is promiscuity that needs to be addressed.

Because attitudes are not intrinsic but are developed or learned throughout development related to the topic, this increased knowledge has the potential to lead to attitudinal changes and acceptance in response to health education, ultimately leading to positive improvements (Nurafriani et al., 2022).

These research findings align with those of Putri Ika Alvionita et al. (2022), who found that participants' attitude scores increased from 28.76 to 34 after the intervention. This aligns with the idea put forward by Mubarak in Fitriani (2011), who stated that health education can lead to attitudinal shifts. It is believed that this will increase understanding, which in turn will allow attitudes to be addressed, ultimately resulting in better behavior.

The Effect of Reproductive Health Education on Adolescent Attitudes About Sexual Behavior at SMK Ma'arif NU 1 Cilongok

A p-value of 0.000 ($p < 0.05$) is demonstrated through the Wilcoxon signed-rank test, as shown in Table 5. Because there was a change in the intervention group's post-test results compared to their pre-test scores, we accept H_a and reject H_o . In this study, one week elapsed between the pre-test and post-test administrations.

To control for potential bias, minimize the impact of testing, and measure rapid attitude change, a one-week delay was used. This aligns with the idea that after a week, people can forget the order of questions, causing post-test results to be more indicative of true attitude change rather than simply short-term memory (Dimitriv et al., 2003). Notoatmodjo (2014) argues that behavioral and attitudinal changes develop over time as a result of increased awareness and interest; it takes time for knowledge to transform into beliefs (attitudes). Post-test results showed a trend toward non-permissive responses, suggesting that educational outcomes had the desired effect on adolescents' views on premarital sexual behavior at SMK Ma'arif NU 1 Cilongok.

A person's attitude is highly correlated with their level of knowledge, the researchers said. The study authors hypothesized that students' increased awareness of the risks of unwanted pregnancy and other negative outcomes caused them to shift from being permissive adolescents who viewed premarital sex as low-risk to being non-permissive. Because knowledge lays the foundation for an individual's understanding of right and wrong, the boundaries between what is acceptable and what is not, and other moral notions, it influences attitude formation.

Given the substantial impact moral conceptions have on belief systems, it is not surprising that moral conceptions also contribute to the formation of individual attitudes. Some participants may have responded non-permissively in this study not out of genuine disagreement, but because they believed it was the right thing to do or because the researchers wanted them to. The instructional message was well conveyed and influenced the respondents' emotional domain, as indicated by the significant increase in post-test scores.

Researchers hypothesize that adolescents' persistence in permissive social environments after education is due to the inherent freedom of choice and therefore resistance to change. Medical advice can sometimes be overridden by peer pressure, as sexual behavior tends to mimic what is "cool" in society, according to Bandura's social learning theory.

Cahyani et al. (2019) confirmed these findings by comparing the pre- and post-counseling opinions of 11th-grade science students at SMAN 6 Malang City regarding premarital sex. The 11th-grade social studies students at SMAN 6 Malang City demonstrated the impact of reproductive health counseling on their views on premarital sexuality. Reproductive health counseling significantly impacted the attitudes toward premarital sex of 11th-grade social studies students at SMAN 6 Malang City. After counseling, the average questionnaire score increased from 65.61 to 68.15, a significant increase of 81.43 points.

People can change their attitudes in response to new information or experiences because attitudes are not innate but develop over time. The intrinsic, affective, and motivational qualities of an attitude distinguish it from the knowledge and abilities of others (Oktarina, 2018).

Assigning value to harm or regret, responding to events or generating reactions, managing value differences for overall progress, and finally, internalizing all values influence cognitive and behavioral patterns, which is the first step in transformation (Rahardjo et al., 2017).

According to thesis of Azwar (2013), attitudes are how people respond to things and stimuli. One factor influencing attitudes is the impact of personal experience. Consequently, attitudes are more easily developed in response to direct experiences that include emotional components. If someone wants to avoid confrontation with important individuals in their lives, they can use the influence of others to get them to do what they want. Furthermore, words spread through the media can influence people's feelings about a particular issue. Education has the potential to positively change adolescents' views on premarital sexual behavior ($p = 0.000$), which is supported by the findings of this study and previous research by Wahyuningsih & Yugistyowati (2021).

Late adolescence is characterized by a shift from conventional values to adult values, as adolescents approach adulthood and develop an interest in intellectual functions. They also

develop cognitively rapidly, which helps them learn abstract thinking a crucial skill for making informed decisions based on limited information and forming strong opinions (Ratna & Fajriansi, 2024).

Additionally, the study found that the pre- and post-test scores of three students were identical. One 16-year-old female participant had a pre- and post-test score of 50, another 17-year-old female participant had a score of 54, and a 15-year-old female participant had a score of 51. These three adolescents were the only ones to achieve identical results on both sets of tests. The study authors reasoned that adolescents whose attitude ratings did not improve may have been too shy to ask questions or simply did not understand the concepts discussed in class.

According to Lawrence Green's behavioral theory (PRECEDE-PROCEED model), there are three main categories of factors that influence health behaviors. The first category includes predisposing factors, which include things like knowledge, attitudes, beliefs, and values. This category includes things like adolescents' lack of knowledge and the presence of myths and misconceptions. The second category includes enabling factors, which include things like the availability of resources and skills needed to perform the behavior. This category also includes things like limited access to trusted and confidential services/information or a lack of interpersonal skills to ask questions. Finally, there are reinforcing factors, which include things like social support and feedback from significant others. These factors include stigma, judgment, and rejection from family, peers, or health care providers when adolescents seek information.

5. Conclusions

Based on the results of research on the influence of reproductive health education on adolescent attitudes regarding premarital sexual behavior at SMK Ma'arif NU 1 Cilongok, it can be concluded that the majority of respondents were 16 years old (74.6%), with an age range of 15–17 years, and were predominantly female (56.9%). Before the education, the majority of adolescents' attitudes toward premarital sexual behavior were permissive (56.5%), with an average score of 49.08, indicating a tendency to view such behavior as normal. However, after the reproductive health education intervention, adolescent attitudes experienced a positive change, as indicated by the majority of respondents being in the non-permissive category (61.2%), with an average score increasing to 58.97. The Wilcoxon signed-ranks test obtained a p-value of 0.000 ($p < 0.05$), thus concluding a significant influence between reproductive health education and adolescent attitudes about premarital sexual behavior.

Based on these findings, adolescents are advised to be more selective in receiving reproductive health information and be able to be firm in refusing invitations or pressure towards premarital sexual behavior, Harapan Bangsa University is expected to utilize the research results as a scientific reference and learning material especially for nursing and health students, while further researchers are advised to use different research designs, expand the scope of the area and the number of respondents, and utilize more varied educational media such as videos or interactive modules so that the research results are more comprehensive and relevant.

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