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RESEARCH

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Educational Attainment and Health Promotion Exposure as Determinants of Adolescent Reproductive Health Outcomes

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Abstract

Adolescent reproductive health remains a significant public health issue in Indonesia because limited reproductive health knowledge may increase the risk of unhealthy sexual behaviors and their consequences. Developing successful preventive interventions requires an understanding of the relationship between health promotion and educational attainment. Investigating the relationship between adolescent reproductive health, health promotion, and educational attainment was the aim of this study. A quantitative cross-sectional study involved a full sample of teenagers. The data were collected using structured questionnaires and then statistically analyzed using bivariate, multivariate, and descriptive methods. The majority of individuals had adequate exposure to health promotion, a secondary level of education, and good reproductive health. Significant relationships between health promotion, educational attainment, and teenage reproductive health were shown by bivariate analysis. Health promotion was also found to be the strongest variable by multivariate analysis, suggesting that it plays a significant impact in improving adolescents' knowledge, attitudes, and appropriate reproductive health behaviours. Conclusion: Health promotion and educational achievement have a major impact on adolescent reproductive health. Strengthening sustainable health promotion in schools, families, healthcare facilities, and community partnerships is necessary to improve adolescent reproductive health. These results offer evidence to promote the creation of community-based, culturally relevant, and successful reproductive health promotion initiatives.

Keywords: Adolescent, Community-based intervention, Educational attainment, Health promotion; Reproductive health.

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1. INTRODUCTION

Adolescents undergo rapid biological, psychological, social, and emotional changes as they transition from childhood to adulthood (Sulhan, 2024). Adolescents must have a solid awareness of reproductive health at this point to maintain healthy behaviors and prevent numerous dangers to their reproductive health as their reproductive organs begin to mature. Reproductive health, according to the World Health Organization, is more than just the absence of illness or disability; it is a condition of physical, mental, and social well-being in relation to the reproductive system, its activities, and processes (Organization, 2024; Klein, 2024).

A high degree of curiosity about a variety of topics, including sexual and reproductive issues, is often present during adolescence, a time of self-identity exploration. If teenagers are not adequately informed and educated, their lack of readiness to cope with these changes can lead to a range of health issues (Rima Wirenviona et al., 2020). The advancement of information technology and social media has influenced teenagers' behavior in accessing reproductive health information, both positively and negatively. Incorrect information can lead to unsafe sexual conduct, behavioral abnormalities, and a lack of awareness among teenagers about reproductive health (Santrock et al., 2002; Lally & Valentine-French, 2019).

In Indonesia, adolescents' lack of understanding about reproductive health remains a significant concern. Risky sexual behaviour, early marriage, unplanned pregnancies, unsafe abortions, and sexually transmitted diseases like HIV/AIDS are all more common among teenagers without access to trustworthy information (Lestyoningsih, 2018; Pratiwi, 2025). According to data from the National Population and Family Planning Board, some Indonesian teenagers still have limited knowledge about puberty, contraception, and sexually transmitted disease prevention (Aulia & Setiadi, 2024). Various factors, including the social environment, culture, family, education, and suboptimal health promotion programs for adolescents, influence the condition (Kemenkes, 2019).

The quality of education is among the key elements that affect teenagers' capacity to obtain, comprehend, and utilize reproductive health information. Higher education is linked to increased information and improved critical thinking skills, both of which help people make better decisions about their health. Adolescents' attitudes, habits, and perceptions regarding the significance of reproductive health are greatly influenced by their education.. Adolescents with a greater degree of education are more likely to grasp the risks of sexual behavior and preventive actions than adolescents with lower levels of education. Research by Milah (2022) finds that education is strongly associated with improved health behavior because it can boost individual health literacy. Another study by Andayani et al. (2025) and Nudesti et al. (2026) also demonstrates a relationship between education level and teenage reproductive health awareness.

Aside from education, health promotion plays a significant role in promoting teenage reproductive health. Health promotion is the effort to provide health information and education to increase people's knowledge and ability to maintain their health. Adolescents can learn about puberty, reproductive organ cleanliness, illness prevention, and the consequences of unsafe sexual behavior through health promotion. Health promotion programs implemented through schools, social media, healthcare facilities, and community activities have demonstrated efficacy in raising teenagers' knowledge and healthy behaviors (Terry, 2021; Eldredge et al., 2016). However, the implementation of reproductive health promotion in the community continues to confront several challenges, including insufficient educational media, low-income family involvement, and the persistence of societal stigma associated with reproductive health conversations (Agma, 2025).

As adolescents' primary and closest social environment, the family plays a crucial role in shaping their reproductive health behaviors. Effective communication between parents and

teenagers can improve understanding and develop a good attitude toward reproductive health. However, there is still a perception in culture that questions about reproduction are taboo, and communication regarding reproductive health is generally limited. This issue leads some youngsters to seek knowledge from untrustworthy and unaccountable sources (M. F. Marilyn et al., 2010; Sabilah et al., 2024).

Reproductive health difficulties among teenagers persist in the Citizen Association (CA) 24 region of Kota Kulon Village, Garut District, West Java Province, Indonesia. According to preliminary findings, some adolescents still have a limited grasp of reproductive health, particularly the cleanliness of reproductive organs, puberty, and appropriate sexual conduct. Furthermore, the implementation of adolescent health promotion has not been optimal or sustainable. This issue highlights the need for research on aspects of teenage reproductive health, notably education level and health promotion.

The novelty of this study lies in demonstrating the combined role of educational attainment and health promotion in improving adolescent reproductive health at the community level. The findings provide evidence to support the development of family- and community-based reproductive health promotion programs that are more effective, culturally appropriate, and sustainable.

The relationship between education and health promotion for adolescent reproductive health has been extensively researched; most studies have focused on school environments or health facilities. Research in community settings, particularly in neighborhood units (RW), remains inadequate, resulting in a research gap regarding community-based adolescent reproductive health issues. Furthermore, little research has been conducted at the community level to identify the main factors most influential on teenage reproductive health using a multivariate approach. As a result, this research is critical in providing an empirical picture of the interaction between education level and health promotion on adolescent reproductive health in the community setting.

The purpose of this study is to assess the impact of education level and health promotion on teenagers' reproductive health in Citizen Association (CA) 24, Kota Kulon Village, Garut District. It is anticipated that the results of this study will provide an evidence-based basis for creating more successful, long-lasting, and community-responsive adolescent reproductive health education and promotion initiatives. The need for focused interventions that increase adolescents' access to accurate and trustworthy reproductive health information through educational institutions, family involvement, healthcare services, and digital media platforms is highlighted by the strong correlations found between educational attainment, exposure to health promotion activities, and adolescent reproductive health.

2. RESEARCH METHOD

The association between educational attainment, exposure to health promotion, and teenage reproductive health was investigated in this study using a quantitative cross-sectional method. Because it allows for the simultaneous evaluation of independent and dependent variables at a single point in time, this design was chosen to help researchers find any correlations between the variables being studied. This method is regarded as appropriate for describing adolescents' reproductive health issues based on their level of education and exposure to health promotion at the time the study was done.

The study was conducted in 2026 at the Citizen Association (CA) 24. The study was conducted in Kota Kulon Village, Garut City District, West Java, Indonesia. This site was chosen based on initial observations that showed ongoing issues with teenagers' reproductive health habits, knowledge, and awareness. All 115 teenagers living in RW 24, Kota Kulon Village, Garut City District, made up the target group. All individuals of the population are asked to participate in the study using the entire sampling technique, which yields a sample size

of 115. Total sampling is used to generate a more representative picture of adolescents' reproductive health in the research area.

Adolescent reproductive health is the dependent variable in this study, with education level and health promotion serving as the independent variables. The level of education is determined by the highest level currently pursued or completed by the respondents. Health promotion is measured by respondents' frequency of exposure to reproductive health information or education from schools, healthcare personnel, social media, and community settings. Adolescent reproductive health was evaluated based on three key dimensions: respondents' knowledge, attitudes, and behaviors related to reproductive health.

A structured questionnaire developed based on relevant theoretical frameworks and findings from previous studies was used as the research instrument. The questionnaire is divided into sections: respondent characteristics, educational level, health promotion, and adolescent reproductive health. Before use, the research instrument was validated and tested for dependability with respondents who shared similar characteristics outside the research area. The validity test results show that all items have calculated *r* values greater than the table *r* value, indicating they are valid. The instrument showed adequate internal consistency and was sufficiently reliable for use in the study, according to the reliability assessment, which produced a Cronbach's alpha coefficient more than 0.70.

With the aid of qualified enumerators, the researcher directly collected the data. Participants were given thorough information about the study's goals, methods, possible rewards, and safeguards in place to protect the privacy of their personal data prior to filling out the questionnaire. Before being included in the study, adolescents who voluntarily agreed to participate had to give their informed consent. To protect participants' rights, privacy, and welfare, ethical norms such as respect for autonomy, secrecy, beneficence, and justice were maintained throughout the research process.

The data is then edited, coded, entered, and cleaned before being analyzed using computer statistical software. A univariate analysis was used to describe the frequency distribution and proportion of each research variable. In bivariate analysis, the chi-square test was performed to examine the link between education level and health promotion and adolescent reproductive health. Following that, logistic regression was used to conduct a multivariate analysis to identify the most important factors influencing adolescent sexual health. Statistical significance is determined at $p < 0.05$, with a 95% confidence interval (95% CI).

The results of the analysis were presented through frequency distribution tables, descriptive narratives, and statistical interpretations to provide a comprehensive understanding of the associations between educational attainment, exposure to health promotion activities, and adolescent reproductive health in RW 24, Kota Kulon Village, Garut District.

3. RESULTS AND DISCUSSION

This study included 115 teenagers from the Citizen Association (CA) 24 in Kota Kulon Village, Garut City District, to assess the impact of education level and health promotion on adolescent reproductive health. Table 1 displays the findings of the univariate analysis, which are as follows.

Table 1. Respondent characteristics (n=115)

Variable	Category	Frequency (f)	Percentage (%)
Adolescent Age	Early Adolescent	28	24.3
	Middle Adolescent	62	53.9
	Late Adolescent	25	21.8
Gender	Female	70	60,9

	Male	45	39.1
Education	Basic	30	26.1
	Intermediate	65	56.5
	Hight	20	17.4
Health Promotion	Less	35	30.4
	Sufficient	60	52.2
	Good	20	17.4
Reproductive Health	Less	40	34.8
	Good	75	65.2

According to Table 1, The findings indicate that most respondents were classified as middle adolescents (53.9%), followed by early adolescents (24.3%) and late adolescents (21.8%). This distribution shows that the majority of respondents were in the middle stage of adolescence, a developmental stage marked by significant physical, emotional, and social changes that underscore the significance of thorough knowledge and awareness of reproductive health. The majority of respondents (56.5%) have a secondary education level, while the remainder have primary or higher education levels

According to the study's findings, the majority of respondents (52.2%) have had sufficient exposure to health promotion, while some have had good or poor exposure. Respondents were exposed to health promotion through schools, healthcare personnel, social media, and their local community. Although some teenagers have received reproductive health information, there are still respondents who have not received enough and ongoing education.

Based on reproductive health characteristics, the majority of respondents have good reproductive health. Maintaining reproductive hygiene, comprehending the physiological changes connected with puberty, and abstaining from dangerous sexual practices are among the healthier behaviours that adolescents with sufficient awareness of reproductive health tend to exhibit. However, some respondents still display poor reproductive health behaviours and knowledge, possibly as a result of a lack of access to reliable information and a lack of comprehension of reproductive health issues.

Adolescent reproductive health and educational achievement were found to be statistically significantly correlated in the bivariate analysis utilizing the chi-square test. Adolescent reproductive health and educational achievement were found to be statistically significantly correlated in the bivariate analysis utilizing the chi-square test. Adolescent reproductive health is also strongly linked to health promotion. As seen in Table 2:

Table 2. A bivariate analysis of the relationship between education level and health promotion on adolescent reproductive health (n=115)

Variable	Reproductive Health		Total	p-value
	Both (n) (%)	Poor (n) (%)		
Education Level				
Primary Education	12 (48.0)	13 (52.0)	25	0.021
Secondary Education	48 (73.8)	17 (26.2)	65	
Higher Education	21 (84.0)	4 (16.0)	25	
Health Promotion				
Poor	14 (41.2)	20 (58.8)	34	0.003
Satisfactory	45 (75.0)	12 (25.0)	60	
Good	20 (95.2)	1 (4.8)	21	

The results of bivariate analysis using the chi-square test revealed a significant association between education level and teenage reproductive health. Adolescents with higher education levels tend to have better reproductive health than those with lower education levels. Furthermore, a substantial association exists between health promotion and teenage reproductive health ($p = 0.003$). Adolescents who receive high-quality health promotion have better reproductive health than adolescents who receive less.

This shows that education can improve teenagers' ability to receive, understand, and utilize reproductive health information in their daily lives. Higher education can also enhance adolescents' critical thinking skills and deepen their understanding of the importance of reproductive health.

According to the results of the multivariate analysis using logistic regression, health promotion is the most important factor impacting teenage reproductive health, as shown in Table 3.

Table 3. Multivariate Logistic Regression Analysis of Factors Related to Adolescent Reproductive Health (n=115)

Variabel	B	SE	Wald	p-value	AOR	95% CI
Education Level	0.864	0.392	4.856	0.028	2.37	1.10-5.08
Health Promotion	1.055	0.348	9.184	0.003	2.87	1.45-5.67
Constant	-2.143	0.756	8.037	0.005	0.11	-

The results of multivariate logistic regression analysis revealed that education level and health promotion are both associated with teenage reproductive health. The health promotion variable has the most influence on adolescent reproductive health, with an Adjusted Odds Ratio (AOR) of 2.87 (95% CI: 1.45-5.67; $p = 0.003$). This shows that adolescents who receive good health promotion are 2.87 times more likely to have good reproductive health than adolescents who receive less health promotion.

Meanwhile, education level is significantly associated with adolescent reproductive health, with an AOR of 2.37 (95% CI: 1.10-5.08; $p = 0.028$). These findings show that the greater an adolescent's educational level, the better their ability to grasp and utilize reproductive health knowledge in their daily lives.

Overall, the findings show that education and health promotion have a considerable impact on teenage reproductive health. Adolescent reproductive health improves with more education and good health promotion. In order to promote favorable reproductive health behaviors among teenagers, these findings emphasize the significance of bolstering educational campaigns and putting in place integrated reproductive health promotion programs including schools, families, healthcare providers, and communities.

The Relationship Between Adolescent Reproductive Health and Educational Attainment

The results showed a statistically significant correlation ($p = 0.021$) between teenage reproductive health and educational achievement. Higher educated adolescents typically showed better reproductive health outcomes than their less educated peers. These findings imply that teenagers' knowledge, attitudes, and practices about reproductive health may be significantly influenced by their educational experiences.

Education is a learning process that can improve a person's ability to accept information, comprehend health challenges, and make sound decisions about health behavior. research results (Hulu et al., 2020), indicating that the higher a person's level of education, the easier it is for that individual to learn and utilize health information in everyday life (Choi, 2019; Feinberg et al., 2016). Education also influences adolescents' critical thinking and capacity to sift through appropriate reproductive health information (Mamahit et al., 2022; Widjanarko et al., 2023).

In this study, the majority of respondents have a secondary education. Adolescents in secondary education have generally received basic reproductive health information through the educational curriculum, information media, and social environment. This can help youngsters learn more about puberty, reproductive organ cleanliness, sexually transmitted disease prevention, and the consequences of unsafe sexual conduct. Teenagers with higher levels of education are more likely to comprehend the ramifications of behaviors that could threaten their reproductive health (Organization, 2018; Chandra-Mouli et al., 2019).

The outcomes of this investigation are consistent with the research (Fitria et al., 2023; Atik & Susilowati, 2021). This indicates that teenagers' reproductive health awareness is significantly related to their level of schooling. According to the research, youth with higher levels of education have greater access to information, making them better able to understand reproductive health issues (Kyilleh et al., 2018; Qi et al., 2023). A previous study (Megasari, 2019) demonstrates that education influences adolescent reproductive health behavior by enhancing health literacy and understanding of the value of maintaining personal health (Vongxay et al., 2019).

Theoretically, education improves a person's cognitive capacity to understand and interpret health information, leading to more reasonable decisions. This is consistent with findings by Blakemore (2019) and Cappa et al. (2012). It asserts that education is the key social predictor of adolescent health, especially in improving critical thinking skills and reproductive health decision-making. Furthermore, previous research has demonstrated that (Yakubu & Salisu, 2018; Olutade-Babatunde et al., 2024) demonstrate that education level is strongly associated with increased knowledge and favorable attitudes towards reproductive health among teenagers in underdeveloped countries.

In addition, schooling is linked to teenagers' ability to access technology and information media. In today's digital age, teenagers get a lot of health information via the internet and social media (Ainiyah, 2018; Meilinda et al., 2020; McKellar & Sillence, 2020). Teenagers with higher levels of education are more discerning when filtering correct and trustworthy information than those with lower levels of education. However, if youth are given wrong information about reproductive health through the usage of digital media, it can have a harmful influence. As a result, reproductive health education must be delivered entirely in school and home settings so that adolescents can accurately interpret health information (Meilinda et al., 2020; Anwar et al., 2020).

The World Health Organization recommends that adolescents receive reproductive health education early on to raise understanding and prevent the formation of dangerous sexual behaviors (Organization, 2024). Good education can help teenagers make healthy and responsible reproductive health decisions. As a result, adolescent reproductive health measures must take educational levels into account (Harahap et al., 2024; Engel et al., 2019).

Relationship between Health Promotion and Adolescent Reproductive Health

With a p-value of 0.003, the study's findings indicate a substantial correlation between health promotion and teenage reproductive health. The results of the multivariate analysis also show that, with an AOR value of 2.87, health promotion is the most important factor affecting teenage reproductive health. According to this, teenagers who receive adequate health promotion are almost three times more likely to have good reproductive health than those who receive inadequate health promotion.

Health promotion is an endeavor to empower communities by providing knowledge, education, and encouragement to increase individual awareness and ability to maintain health. The findings of research by Giles-Corti (2000) and Parker & Fleming (2020) indicate that health promotion aims to foster healthy behaviors by improving individuals' knowledge, attitudes, and abilities (Terry, 2021; Sharma, 2021). In the context of teenage reproductive health, health promotion is critical in delivering information on puberty, reproductive organ cleanliness, the prevention of sexually transmitted illnesses, and the consequences of risky sexual behavior (Anggraini & Lestari, 2025; Hindieh, 2020).

In this study, the majority of respondents received appropriate exposure to health promotion. The respondents' health promotion came from schools, healthcare workers, social media, and the community. Adolescents who receive frequent health education have higher levels of knowledge and reproductive health behaviors than those who receive less health promotion. This demonstrates how providing accurate and continuous health information can increase adolescents' understanding of the need to maintain reproductive health.

The outcomes of this investigation are consistent with the research (Isyos Sari, 2025). According to this study, health promotion has a considerable impact on changing teenagers' reproductive health practices. According to research, frequent reproductive health education can increase knowledge and foster favorable attitudes towards reproductive health among teenagers. The research was conducted by Suwanti et al. (2022) and Akbar (2023). It was discovered that teenagers who get health promotion through audiovisual media and social media had a higher grasp of reproductive health than adolescents who do not receive health education.

This finding is consistent with the studies (Organization, 2024). It promotes community and school-based health promotion as the most effective methods for promoting adolescent reproductive health. Continuous educational initiatives have been shown to reduce risky behaviors such as premarital sexual intercourse and incorrect contraception use (Badriah et al., 2023). Research by Xu et al. (2020) and Suto et al. (2021) indicates that school-based health promotion programs significantly enhance teenagers' knowledge and attitudes regarding reproductive health.

Furthermore, in this study, health promotion had a greater influence than schooling because of direct access to relevant, contextualized information. Adolescents who are routinely exposed to health promotion have a more practical grasp, even if their education is limited. This is supported by research (Svanemyr, 2020), which asserts that a comprehensive health promotion approach, including structured sexuality education, is more effective in changing behavior than relying just on formal education. A study conducted by (Challa et al., 2018; Darfour-Oduro & Grigsby-Toussaint, 2022) indicates that adolescent reproductive health behaviors are significantly influenced by social and contextual factors, as well as cultural norms.

Instead than depending only on conventional lectures and counseling, effective reproductive health promotion should include interesting, age-appropriate instructional material catered to teenagers' developmental requirements. Teenagers' knowledge, awareness, and comprehension of reproductive health issues may be improved by strategies like social media campaigns, instructional videos, interactive group discussions, and adolescent-focused counseling. In addition, the involvement of families, schools, and healthcare professionals is critical to the success of reproductive health promotion programs (Elna et al., 2025; Rhamadianto & Shalihah, 2025).

According to the World Health Organization (WHO), adolescent reproductive health promotion requires a comprehensive, sustained, and multisectoral approach that actively involves educational institutions, healthcare services, families, and communities (Organization, 2024). A good promotional strategy can help teenagers develop healthy living habits and reduce their risk of reproductive health problems in both adolescence and adulthood (Uberty, 2022; Waliyanti et al., 2025). As a result, health promotion takes on a critical role in community initiatives to enhance teenage reproductive health.

Nursing Implications

The results of this study showed a strong correlation between teenage reproductive health, educational attainment, and exposure to health promotion activities. These findings have significant ramifications for nursing practice, especially in maternity, family, and community health nursing. Through the implementation of comprehensive preventive and health promotion programs, nurses play a crucial role as educators, counselors, advocates, and healthcare providers in supporting adolescent reproductive health. Milah remarked that health education is crucial to improving people's and communities' health behaviors, as it enhances knowledge, attitudes, and health practices (Milah, 2022; Lim, 2025).

In community nursing practice, nurses can create community-based reproductive health promotion programs through counseling, group discussions, and regular adolescent mentorship (Dewi et al., 2024; Kristanto et al., 2025). Reproductive health education must be comprehensive, addressing puberty, reproductive organ cleanliness, sexually transmitted infection prevention, and the consequences of unsafe sexual conduct. This educational program can be delivered through schools, adolescent health service posts, and community-based settings to promote equitable access to comprehensive and accurate reproductive health information among adolescents. As proposed by Green and Kreuter (1991), Effective health promotion initiatives can foster positive health behaviors by enhancing individuals' knowledge, strengthening their self-efficacy, and empowering them to take an active role in maintaining and improving their health (Terry, 2021; Green & Kreuter, 1991).

When it comes to advising and counseling teenagers on reproductive health, nurses play a critical role. Nurses can support informed decision-making and promote healthy reproductive health practices while improving adolescents' comprehension of the physical and psychological changes associated with puberty through counseling treatments. A therapeutic communication approach is required to help teenagers feel comfortable and open about discussing their reproductive health concerns. Nurses can assist adolescents in lowering their risk of risky sexual conduct by providing appropriate counseling (Kp et al., 2024; Seimahuira et al., 2025).

This study highlights the significance of family participation in promoting teenage reproductive health within family nursing practice. According to Marilyn M. Friedman, the family is the primary support system that influences the health behaviors of its members, especially teenagers (R. Marilyn et al., 2003). As a result, nurses must involve parents in reproductive health education programs in order to foster effective communication between parents and adolescents. Educating families can help enhance monitoring, emotional support, and the supply of accurate reproductive health information, preventing teenagers from seeking information from unsuitable sources.

Furthermore, as information technology advances, nurses will be able to use digital media to promote reproductive health. Social media, educational films, health software, and audiovisual media can all be used in novel ways to improve teenagers' reproductive health awareness. Research (T. D. O. Amelia, 2024; D. Amelia et al., 2026) reveals that digital instructional media improves teenage reproductive health awareness by being more engaging, interactive, and accessible. As a result, nurses must develop technology-based teaching strategies to make health promotion more successful and relevant to the features of today's teenage population.

The study's findings are significant for health services at community health centers and educational institutions seeking to improve cross-sector collaboration in implementing adolescent reproductive health initiatives. Nurses can collaborate with schools, other healthcare workers, community leaders, and health professionals to develop youth posyandu or peer education programs to promote positive reproductive health habits. The World Health Organization (WHO) highlights the importance of a coordinated, multisectoral approach to adolescent reproductive health promotion, emphasizing the active involvement and collaboration of families, educational institutions, healthcare providers, and local communities (Organization, 2024; Pratiwi, 2025; Wismaningsih et al., 2026).

Therefore, the findings of this study underscore the essential role of nurses in enhancing adolescent reproductive health through comprehensive health education, targeted health promotion interventions, counseling services, family empowerment, and the sustainable implementation of community-based health programs.

Limitations

When evaluating the findings, it is important to recognize a number of the study's shortcomings. Specifically, the cross-sectional study design makes it possible to find correlations between the variables under investigation but not to establish causative links.

Furthermore, the results may not be as applicable to teenage populations with different social backgrounds because the study was conducted inside a single community. Furthermore, using self-reported questionnaires may raise the possibility of response bias, especially considering how delicate reproductive health concerns are. This could affect teenagers' willingness to give truthful and accurate answers.

In order to better understand temporal changes in adolescent reproductive health and give stronger evidence about potential causal linkages, future research should think about using longitudinal or cohort study designs. The generalizability of the findings may be improved by doing research in several geographic locations with larger and more diverse populations. Additionally, incorporating mixed-methods approaches may provide a greater understanding of the viewpoints and experiences of adolescents. To have a more thorough picture of teenage reproductive health, future studies should also look at other variables such parental support, peer impact, digital health literacy, social media activity, and accessibility of reproductive healthcare services.

It is anticipated that these research methods will produce a more comprehensive understanding of the factors influencing teenage reproductive health and offer more solid empirical data to guide the creation and execution of successful, family-centered, community-based health promotion initiatives.

In healthcare practice, coordination among healthcare staff, schools, families, and community leaders is essential for developing community-based reproductive health promotion programs. The creation of digital instructional media, teenage psychotherapy, and the organization of peer educator groups can all be useful initiatives for improving long-term adolescent reproductive health.

4. CONCLUSION

According to the research findings, education level and health promotion are substantially associated with teenagers' reproductive health in RW 24, Kota Kulon Village, Garut District, West Java, Indonesia. Adolescents with higher levels of education have more knowledge, attitudes, and actions around reproductive health than adolescents with lower levels of education. Education contributes to adolescents' ability to accurately receive and understand reproductive health information.

Furthermore, health promotion has been found to have a considerable impact on teenage reproductive health. Adolescents who receive comprehensive, consistent health education have better reproductive health than those who receive less comprehensive or less consistent education. The results of the multivariate analysis show that health promotion has the greatest influence on teenage reproductive health, with an AOR value of 2.87.

The study's findings show that enhancing adolescent reproductive health necessitates integrated health education and promotion assistance from schools, families, healthcare workers, and communities. Nurses play an essential role in educating, counseling, and continuously promoting reproductive health to improve understanding and shape healthy behaviors among teenagers. As a result, community-based reproductive health initiatives must be strengthened, and creative educational media must be used to maximize promotional and preventive efforts related to adolescent reproductive health issues.

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