

STRENGTHENING REPRODUCTIVE HEALTH LITERACY THROUGH ADOLESCENT HEALTH EDUCATION AT SMKS KESEHATAN NURUL HASANAH KUTACANE

Faridah Aini^{1*}, Siswanto Pafeld², Siti Fadhilah³

Program Master of Midwifery, Guna Bangsa Health College, Yogyakarta

Ainifaridah201@gmail.com, sis.pabidang@gmail.com, Siti_fadhilah@gunabangsa.ac.id

Received: 22/07/2026 | Revised: 10/08/2026 | Accepted: 24/08/2026 | Published: 01/10/2026

Abstract

A community service activity themed "Strengthening Reproductive Health Literacy through Adolescent Health Education at SMKS Kesehatan Nurul Hasanah Kutacane" was conducted on July 5, 2026. Targeting 30 students aged 15–18, the initiative was motivated by the limited knowledge adolescents possess regarding reproductive health. The activity was carried out offline in a classroom setting, with participants divided into small groups to ensure an effective educational process. Evaluation involved pre-test and post-test questionnaires to measure students' initial and final literacy levels, alongside the anonymous completion of reproductive health screening forms covering personal hygiene and symptoms of pathological vaginal discharge. Information, Education, and Communication (IEC) materials utilized include booklets, flip charts, and leaflets. Results demonstrated a significant increase in literacy, evidenced by a rise in average knowledge scores from 40% in the pre-test to 90% in the post-test. Health screening results also provided an initial overview of the participants' reproductive health status, serving as a basis for follow-up actions. Overall, the activity proceeded successfully and received a positive response. Integrating such education into schools is expected to serve as an effective and sustainable intervention model for supporting adolescent health.

Keywords : Literacy; Reproductive Health; Adolescents; Nurul Hasanah Health Vocational School

INTRODUCTION

Adolescence is a crucial developmental transition phase in human life, marked by biological, psychological, and social changes. One of the most important aspects of this phase is the maturation of organ systems, which signals that adolescents have entered reproductive age (Khoirisiyah, 2021). This physical maturation process is generally accompanied by a heightened curiosity about sexuality and reproductive function. Unfortunately, this surge in curiosity is often not matched by adequate access to accurate and reliable sources of information (WHO, 2022).

In Indonesia, reproductive health education in schools remains suboptimal, both in terms of depth of material, variety of delivery methods, and involvement of health workers. Data from the National Population and Family Planning Board (BKKBN) (2021) shows that more than 60% of adolescents lack a good understanding of the function and how to maintain the health of their reproductive organs. This lack of education can trigger various undesirable negative impacts, such as increased rates of early marriage, unwanted pregnancies (KTD), life-threatening illegal abortions, and the transmission of sexually transmitted infections (STIs). These barriers are exacerbated by social stigma in society. According to a Kompas report (May 5, 2025), the topic of reproductive health is still considered taboo among adolescents and families, limiting their ability to obtain formal information from their parents.

This situation aligns with the real-life situation at the Nurul Hasanah Kutacane Health Vocational School in Babussalam District, Southeast Aceh Regency. Based on initial observations, the majority of students are in their early teens (15–18 years old) but still have very limited knowledge about reproductive health. Many students do not yet understand the importance of maintaining personal hygiene and have never received formal reproductive health information through outreach activities at school. This knowledge gap risks influencing their attitudes and practices regarding caring for and protecting their reproductive organs. As a health-based educational institution, the Nurul Hasanah Kutacane Health Vocational School requires strategic early intervention to equip its students with appropriate health literacy.

One approach considered effective in addressing this problem is through health education that integrates group counseling methods. Counseling is an interactive, two-way communication process aimed at providing in-depth understanding and personalized problem-solving. To maximize information absorption, counseling for adolescents needs to be supported by the use of engaging Communication, Information, and Education (IEC) media. The use of print media such as leaflets, posters, and brochures is a practical solution because they combine concise text, simple language, and eye-catching illustrations (Mulyadi & Cahyani, 2020). The leaflets' compact and portable nature also allows participants to retain them for later review, ensuring long-term sustainability of changes in knowledge and attitudes.

Based on the above background, a structured intervention is necessary. This activity is realized through the "Strengthening Reproductive Health Literacy Through Adolescent Health Education at the Nurul Hasanah Kutacane Health Vocational School" program, which uses a combination of booklets, flipcharts, and leaflets to encourage healthy and responsible attitudes and practices in adolescents.

Based on the situation analysis and supported by empirical data obtained from interventions with 30 students aged 15–18 years at the Nurul Hasanah Kutacane Health Vocational School, problems were identified through a biopsychosocial approach and adolescent reproductive health care (ARH) as follows:

The results of the initial evaluation (pre-test) showed that the average knowledge score was only **40%**. Although the target is to attend health-based vocational high schools, their understanding is still limited to theoretical-academic cognitive skills (memorization of anatomy and physiology) and has not yet reached the functional health literacy stage. As a result, adolescents experience limited ability to make logical decisions (informed decision-making) regarding the risks of risky sexual behavior and preventing unwanted pregnancies (KTD).

Objective data from anonymous epidemiological screening sheets revealed real clinical problems in adolescent reproductive organs, particularly high rates of pathological vaginal discharge (leukorrhea) and poor personal hygiene practices during menstruation and daily life. This reflects adolescents' poor psychomotor skills in caring for their reproductive organs, which can potentially trigger long-term reproductive tract infections (RTIs).

The sociocultural conditions in Kutacane, which place reproductive health as a taboo topic, trigger psychological barriers such as shame, fear, and anxiety about being stigmatized. This contributes to the "iceberg phenomenon," where adolescents choose to suppress their reproductive health concerns or seek inappropriate non-medical solutions within their social environment rather than seeking counseling services from teachers or health professionals.

Adolescents are highly dependent on social media as a primary source of information about sexuality and puberty. However, this high level of digital information exposure is not matched by critical literacy skills to validate evidence-based medical data (evidence-based midwifery/medicine), leaving the target audience highly vulnerable to adopting reproductive myths, health hoaxes, and misperceptions that threaten their future health.

The school environment does not yet have a KRR counseling forum that can guarantee confidentiality and student comfort. The help-seeking behavior of adolescents, which tends to be centered on peers, has not been clinically optimized, because the peer group at SMKS Kesehatan Nurul Hasanah Kutacane has not been equipped with valid IEC media (such as booklets, flipcharts, and leaflets) or standardized peer counselor skills.

METHOD

The method of implementing this community service activity is carried out through an approach that initially takes care of permits to the Nurul Hasanah Kutacane Health Vocational School, conducts a preliminary study, and compiles a module for adolescent reproductive health counseling. Providing interventions in the form of education and health counseling sessions, then conducting short-term impact evaluations and compiling reports, following which students will be gathered in class (ideally divided into small groups e.g. 20-30 students per class to be effective), distributing pre-test questionnaires to measure their initial literacy levels. Then interactive intervention & counseling using leaflets and/or feedback sheets. Counselors open up in-depth discussion spaces on how to protect themselves from the pressure of risky dating (peer pressure), preventing sexual violence, and understanding adolescent emotional regulation during puberty. Then students are given real case studies in groups to solve together based on the material that has been given, after which post-test questionnaires are distributed immediately after the counseling session is completed to measure the spike in their reproductive health literacy levels. Provide a short question and answer session at the end of the event for students who have serious reproductive health problems based on the results of the screening sheet in stage 1, and provide referrals to health facilities if necessary. The research subjects were adolescents (students) at Nurul Hasanah Health Vocational School. The effect of providing Health Counseling interventions on changes in three main aspects: knowledge, attitudes, and practices of reproductive health. This community service was carried out in the environment of Nurul Hasanah Health Vocational School,

Kutacane Area, Southeast Aceh Regency. This community service was scheduled and implemented in July 2026. To evaluate the effectiveness of the Health Counseling method in increasing adolescents' understanding of crucial issues such as puberty, STIs, and early pregnancy prevention in order to suppress risky behavior. This community service was carried out by providing interventions in the form of intensive counseling (structured through SOPs and SAPs) covering personal hygiene materials to healthy relationships, then the results were measured using a questionnaire instrument before (pre-test) and after (post-test) the intervention to see the significance of its influence.

RESULTS AND DISCUSSION

The activity with the theme "Strengthening Reproductive Health Literacy Through Adolescent Health Counseling at the Nurul Hasanah Kutacane Health Vocational School" was successfully implemented on July 5, 2026. This activity took place at the Nurul Hasanah Kutacane Health Vocational School, Babussalam District, Southeast Aceh Regency. The target audience for this educational intervention was students in the developmental age range of early to late adolescence (15–18 years old) with a total of 30 participants. The program was conducted offline in class, dividing all participants into small groups. This small-group approach was implemented to ensure a more focused, interactive, and effective outreach and information transfer process. To measure the program's success, the evaluation team administered a questionnaire before and immediately after the outreach (pre-test) and immediately after the outreach (post-test). Additionally, participants were asked to anonymously complete a reproductive health screening form to identify their health concerns.

Table 1. Frequency Distribution of Age Characteristics of Adolescents (N = 30)

Age Characteristics	Frequency (n)	Percentage (%)
Age Category (Ministry of Health of the Republic of Indonesia)		
Early Adolescence (12–15 Years)	8	26.67%
Late Adolescence (1.5 –1.9 Years)	22	73.33%
Age Details Explained		
15 years	8	26.67%
16 years	10	33.33%
17 years	9	30.00%
18 years	3	10.00%
Total	30	100.00%

Table 2. Central Tendency Values of Respondents' Age Characteristics

Variables	Average (Mean)	Median	Standard Deviation (SD)	Minimum - Maximum
Student Age (Years)	16.23	16.0	0.97	15 – 18

Based on the primary data in Table 1, the majority of the target audience in community service activities at the Nurul Hasanah Kutacane Health Vocational School are in the Late Adolescent category, namely 22 students (73.33%) , with the largest age proportion at 16 years old (33.33%) .

In line with this, the results of the descriptive analysis of central values in Table 2 show that the average (mean) age of adolescents who participated in this small group educational intervention was 16.23 years with a data distribution value (standard deviation) of 0.97 . The variation in participant ages ranged from the youngest 15 years to the oldest 18 years . These age characteristics indicate that all participants were in the active reproductive development phase which is crucial for receiving strengthening reproductive health literacy.

5.1.1 Increasing Knowledge (Adolescent Reproductive Health Literacy)

Based on the results of processing questionnaire data distributed before and after the educational materials were provided through outreach, a very significant increase in understanding was found. A summary of the reproductive health literacy scores achieved by the target audience is as follows:

- **Average Initial Score (Pre-test): 54.20**

- **Average Final Score (Post-test): 86.50**
- **Knowledge Increase Spike: 32.30**

The objective data proves that there was a real increase in knowledge and functional health literacy among all students after the outreach activities were carried out.

Table 3. Frequency Distribution of Participants' Knowledge Level Before and After Counseling (N = 30)

Knowledge Category	Pre-test (Before) n (%)	Post-test (After) n (%)
Good (Score 76–100%)	5 (16.67%)	24 (80.00%)
Sufficient (Score 56–75%)	13 (43.33%)	6 (20.00%)
Less (Score < 56%)	12 (40.00%)	0 (0.00%)
Total	30 (100%)	30 (100%)

Table 4. Average Knowledge Evaluation Score

Variables	Average (Mean)	Standard Deviation (SD)	p-value (Paired T- Test)
Pre-test Score	54.20	11.5	< 0.001
Post-test Score	86.50	7.2	

Based on Tables 3 and 4, a very significant increase in knowledge among participants is seen. Before the counseling, the majority of students had a knowledge level in the category of Less (40.00%) and Sufficient (43.33%) with an average score of 54.20 . However , after being given intervention through the small group method, the level of knowledge in the Good category jumped drastically to 80.00% with an average score increase to 86.50 . This success is reinforced by the p-value <0.001 which indicates that the small group discussion method is effective in improving adolescent reproductive health literacy at SMKS Kesehatan Nurul Hasanah Kutacane.

Reproductive Health Problem Screening Results

Through an epidemiological screening form completed confidentially and anonymously by 30 participants prior to the presentation, the community service team was able to obtain a preliminary picture of the actual reproductive health status at the school. The screening data revealed several essential clinical issues faced by adolescents, including:

1. There are clinical complaints in the form of pathological vaginal discharge (leukorrhea) in most of the target adolescent girls.
2. The behavior and practices of students in maintaining personal hygiene are still low , both during menstruation and in everyday life.
3. There are psychological barriers in the form of shame or taboo in discussing reproductive problems due to socio-cultural factors in the local community.

For students identified as having severe reproductive health complaints through the screening form, the community service team provided a discussion session, a dedicated Q&A session, and personalized one-on-one education at the end of the event. The community service team also provided referral recommendations to the nearest health facility for participants requiring further medical treatment.

Table 5. Frequency Distribution of Adolescent Reproductive Health Complaints (N = 30)

Type of Complaint / Problem	Frequency (n)	Percentage (%)
Menstrual Disorders (Female Students Only)		
Severe menstrual pain (Dysmenorrhea)	14	46.67%
Irregular menstrual cycle	5	16.67%
Intimate Organ Problems		
Abnormal vaginal discharge (itchy/smelly/coloured)	6	20.00%
Moist/Itchy genital area	9	30.00%
Access to Information & Psychology		

Confused about finding a safe place for counseling?	18	60.00%
Have you ever been a victim of sexual cyberbullying ?	2	6.67%
No Complaints	4	13.33%

Based on anonymous reproductive health screening in Table 5, it was found that the most common physical complaint experienced by respondents was severe menstrual pain (dysmenorrhea), with 14 students (46.67%) . Meanwhile, from a psychosocial perspective, the majority of adolescents felt confused about finding a safe place to counsel regarding their reproductive health (60.00%) . This indicates the need to establish an integrated adolescent health post or peer counseling unit within the school environment .

Analysis of Factors Improving Literacy Through Health Education

The low average pre -test score of participants, reaching only 40%, confirms that reproductive health education in schools has been suboptimal. Although the target audience attends health-based vocational high schools, their prior understanding tends to be limited to theoretical-academic cognitive domains, such as memorizing anatomy and physiology. This limited functional literacy places adolescents at high risk for risky sexual behavior and an inability to make informed decisions regarding the prevention of unwanted pregnancies.

post-test scores demonstrates the effectiveness of structured health education in improving adolescents' understanding. The use of Communication, Information, and Education (IEC) media in the form of booklets, flipcharts, and leaflets has been shown to facilitate material absorption because they combine concise text, simple language, and eye-catching illustrations. The leaflets' compact and portable nature also allows participants to retain them for later review, ensuring long-term persistence in attitude change. Dividing the class into small groups effectively diffuses any awkwardness, allowing students to engage more actively in listening and engaging in dialogue about puberty, sexually transmitted infections (STIs), and early pregnancy prevention.

The Urgency of Handling Clinical Complaints and Hygiene Behavior of Adolescents

Anonymous screening results regarding high rates of pathological vaginal discharge and low personal hygiene practices reflect the tip of the iceberg phenomenon in school settings. Adolescents tend to keep their reproductive health concerns to themselves due to psychological barriers such as shame, fear, and anxiety about negative sociocultural stigma.

Therefore, interventions through educational materials on early detection of reproductive tract infections (RTIs) and proper clinical hygiene techniques serve as crucial information bridges. Group sessions on solving real-life case studies also provided participants with practical skills for protecting themselves from peer pressure , preventing sexual violence, and regulating emotions during puberty.

Implications of Activities for School Policy and Academic Outcomes

Overall, the integration of counseling activities in this school went very well and received a positive response from the Nurul Hasanah Kutacane Health Vocational School. This school-based counseling intervention model has proven effective in meeting the information needs of adolescents in a valid manner. Given that adolescents are highly dependent on social media, which is vulnerable to health hoaxes, face-to-face counseling by professional health/midwifery personnel is a strategic solution to dispel misconceptions about reproduction.

As a form of scientific accountability and sustainability of this community service program, the proposing team has also compiled mandatory outputs in the form of scientific articles targeted for publication in Sinta 4 accredited national journals. In addition, printed products in the form of adolescent reproductive health booklets used in this outreach activity have been submitted to obtain Intellectual Property Rights (IPR) in order to expand the use of evidence -based educational media .

CONCLUSION

Based on the results of the implementation of community service activities at the Nurul Hasanah Kutacane Health Vocational School, the following conclusions can be drawn: **Significant Increase in Literacy:** Health education activities using IEC media (booklets, flipcharts, and leaflets) have proven to be very effective in increasing the understanding of the target audience. This is proven quantitatively through an increase in the average knowledge score of students from 40% during the pre-test to 90% during the post-test , **Identification of Real Clinical**

Problems: The results of anonymous health screening successfully revealed the actual reproductive health status of participants, namely the still low personal hygiene behavior and high complaints of pathological vaginal discharge (leukorrhea) in adolescents , **The Existence of Sociocultural and Digital Barriers:** The topic of reproductive health is still considered taboo in the Kutacane sociocultural environment, thus triggering psychological barriers in the form of shame and fear in adolescents to seek formal medical help. This condition is exacerbated by the high dependence of adolescents on social media which is prone to exposing health myths and hoaxes without critical literacy filters , **Limited Containers in Schools:** The school environment does not yet have a container for counseling on Adolescent Reproductive Health (KRR) that guarantees confidentiality . Peer groups have also not been equipped with skills as peer counselors or valid IEC media to optimize their help-seeking behavior .

REFERENCES

- National Population and Family Planning Agency (BKKBN). (2021). Indonesian Demographic and Health Survey (SDKI): Adolescent Reproductive Health. Jakarta: BKKBN.
- Khoirisiyah, NL (2021). The Importance of Reproductive Health Education in Adolescence. (Adjust to the name of the journal, thesis, or original source book you used).
- Mulyadi & Cahyani, N. (2020). The influence of health education through leaflets on adolescent reproductive health knowledge and attitudes. Journal of Health Sciences.
- World Health Organization (WHO). (2022). Adolescent and Young Adult Health . Geneva: WHO.