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The Influence of Health Education, Health Services, and Environmental Development of School Health on Adolescent Reproductive Health Behavior

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ABSTRACT

Background: Teenage problems are increasing every year, starting from teenage fights, using drugs, consuming alcohol, smoking, and even cases of teenage pregnancy. Globally, the condition of health problems in adolescents is alarming. This is triggered by bad teenage behavior. This behavior can, among other things, reduce self-control and increase risky behavior such as engaging in casual sex which can result in unwanted pregnancies. School health unit or in Indonesian called UKS is expected to become a forum for improving students' abilities and skills in developing healthy living behavior.

Purpose: The research aims to analyze the influence of school health services on adolescent reproductive health behavior.

Methods: The research method was quantitative with a cross-sectional design. The population was 72 teenagers by total sampling. Data analysis used chi-square and multiple logistic regression.

Results: The results showed statistical test comparison between Reproductive Health Behavior and Health Education, Health Services, and Environmental Development, respectively shows p-value = 0.014 (p< 0.05), 0.010 (p< 0.05), and 0.046 (p < 0.05) which means Ha is accepted or there is a correlation between adolescent reproductive health behavior and health education, health services, and environmental development. The independent variable that influences reproductive health behavior has a value of 0.041 or <0.05. The multiple logistic regression test show that the health service variable has an Exp (B) value of 2.917.

Conclusion: In conclusion, the adolescent reproductive health education, UKS health services, and environmental development have a 2.917 chance of influencing adolescent reproductive health behavior. In other words, there is significant influence of UKS health services on adolescent reproductive behavior.

Keywords: adolescents, reproductive health, school health unit

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BACKGROUND

In this global era supported by information and communication technology in schools, improvements in health services in schools are ironically accompanied by increasing problems in the lives of teenagers (Tari & Tafonao, 2019). Teenage problems range from drug abuse, illegal drugs, pregnancy out of wedlock, drinking, smoking, free sex, and other mental health problems (Pebrianti, Shalahuddin, & Eriyandi, 2022; Malawauw, 2022). Unhealthy dating behavior, smoking, consuming alcohol, and using drugs are major concerns throughout the world (Khuda, 2019). This behavior can reduce self-control and increase risky behavior such as engaging in casual sex which results in unwanted pregnancy (Agustina & Idawati, 2019). One of the triggers for women aged 15-19 to die globally is pregnancy complications (Azza, 2019). The government, through the Sustainable Development Goals (SDG's) for health by 2030, seeks to ensure access to sexual and reproductive health services including family, education, and health integration as health strategies and programs (Sulistyani *et al*, 2023).

The World Health Organization (WHO) has supported countries in strengthening national adolescent health programs and providing appropriate evidence-based services, for example by health programs in schools (Ministry of Health Republic Indonesia, 2019). Regarding this program, Indonesia has implemented the Planning Generation program in the form of the AIDS and Drugs Care Student Group (KSPAN), Information Center and 2 Youth Counseling (PIK-R) since 2010 (Sulistyani *et al*, 2023).

However, outreach in several areas to target groups is still not running optimally (Warijan *et al*, 2022). Various studies related to this problem have explored the causal factors, including limited facilities and infrastructure, community resources, and awareness of teenagers to take part in the program (Fithriyana, 2019; Irma *et al*, 2023; Amira, 2023).
Schools are often referred to by researchers as the most strategic vehicle after the family as a center for adolescent education, including regarding reproductive health (Timar & Moraru, 2012; Regan, Fawzi & Patel, 2020; Victoria, Tuhuteru & Timisela, 2021) Adolescents are the target of reproductive education because they are the future, and generation of the nation who must understand and be able to carry out their reproductive functions and processes healthily and safely (Hasudungan & Kurniawan, 2018). In short, world is currently facing problems related to the emergency of drugs and of free sex, almost entering the lives of teenagers both in the school, family, and community environments which is very disturbing for all groups. UKS is a school activity in the form of health efforts whose implementation process takes place at school (Edy, 2018).

According to WHO, UKS is the same as School Health Service (SHS) as a service center provided by health workers for students registered at school (Dewi, Astriani, & Pratama, 2022). Even though the importance of knowledge about reproductive health has been widely promoted by various institutions, adolescents in different regions of Indonesia still have a relative lack of reproductive health knowledge (Emilda, 2021). One of the causes of low knowledge of adolescent reproductive health is limited access to information for adolescents, even though mobile information technology is easily accessible, in addition to society in general assuming that sexuality is a taboo subject to discuss (Winatasari, 2021).

Most parents decide not to discuss reproductive health and sexuality issues with their children who have entered their teenage years (Koniasari, 2019). Teenagers also have a similar understanding, so they feel embarrassed and reluctant to ask their parents about body changes and their curiosity about reproductive health and sexuality during puberty (Novitriasti *et al*, 2020).

On the other hand, health services at UKS generally revolve around very limited first

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aid for accidents, with very limited medical equipment (Assumpta *et al*, 2022). Many schools have UKS services that are far from adequate, with equipment rarely used and functioning optimally (Fitriana & Siswantara, 2019). Health education activities involving health workers from community health centers as UKS partners are also rarely carried out (Dewi, Astriani, & Pratama, 2022).

This quantitative research seeks to examine the influence of school health services on adolescent reproductive health behavior. The implication is that empowering school health services will help increase teenagers' understanding of reproductive health.

METHODS

Study Design

This quantitative analytical research used a cross sectional design approach. The study took place in SMPN 1 Leuser, North Aceh, between March 2024 to June 2024.

Participants

The population in this study was all seventh-grade students totaling 30 students and eighth grade consisting of 2 classes, namely class VIII A with 20 students and class VIII B with 22 students. The total population was 72 students. Total sampling was used.

Instrument

A questionnaire in Likert-scale was used in the data collection. The questionnaire was prepared based on variables. The dependent variables in this research are the knowledge, attitudes, and behavior of adolescents. The independent variable is adolescent health education, each 10 valid questions with the value of 'good' (1) and 'poor' (0). The measuring scale was 1.56 to 100%. The measuring scale used was ordinal.

Data Collection

Data was collected in SMP 1 Leuser, North Aceh from March to June 2024. Teachers at the school helped researchers gather the answers to questionnaires that students had completed.

Data Process and Analysis

Primary data was obtained from the questionnaire i.e. the characteristics of respondents. Secondary data was taken from various references mainly for the last five years. Data was processed by univariate, bivariate and multivariate, with the assistance of SPSS.

Ethical Consideration

The study was started after receiving an approval letter from Ethical Committee of Institute of Health Sciences of North Sumatera number No: 01.26 658 /KEPK/POLTEKKES KEMENKES MEDAN 2024.

RESULTS

Demographic Data

Table 1. Frequency Distribution of Respondent Characteristics (n=20)

Respondent Characteristics	N	%
Age		
12 years	39	54.2
13 years	33	45.8
Sex		
Male	30	41.7
Female	42	58.3
Total	72	100

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Table 1 shows that the majority of respondents are 12 years old (54.2%), and the majority are women (58.3%).

Univariate Analysis

Table 2. Distribution of Health Education Levels, Health Services, Environmenta Development, and Reproductive Health Behavior

Variables	Frequency	%
Health Education		
Poor	41	56.9
Good	31	43.1
Health Services		
Poor	37	51.4
Good	35	48.6
Environmental Development		
Poor	34	47.2
Good	38	52.8
Reproductive Health Behavior		
Poor	42	58.3
Good	30	41.7
Total	**72**	**100**

Table 2 shows that the majority level of understanding of health education in UKS and reproductive health is in the 'Poor' category (56.9%), health services in UKS are in the 'Poor' category (51.4%), environmental health development is in the 'Poor' category (52, 8%), and reproductive health behavior in the 'Poor' category (58.3%).

Bivariate Analysis

Table 3. The Correlation between Reproductive Health Behavior and Health Education, Health Services, and Environmental Development

Variables	Reproductive Health Behavior						
	Poor		Good		Total		P
	f	%	f	%	F	%	Value
Health Education							
Poor	27	73	10	27	37	100	0.014
Good	15	42.9	20	57.1	35	100	
Health Services							
Poor	27	73	10	27	37	100	0.010
Good	15	42.9	20	57.1	35	100	
Environmental Development							
Poor	24	70.6	10	29.4	34	100	0.046
Good	18	47.4	20	52.6	38	100	
Total	79	48.2	85	51.8	164	100	

Table 3 shows the results of the correlation statistical test between Reproductive Health Behavior and Health Education, Health Services, and Environmental Development, respectively p value = 0.014 (p< 0.05), 0.010 (p< 0.05), and 0.046 (p < 0.05) which means Ha is accepted or there is a relationship between adolescent reproductive health behavior and health education, health services, and environmental development.

Multivariate Analysis

Table 4. Results of the Multiple Logistic Regression Test on Adolescent Reproductive Health Behavior

Variables	B	Sig	Exp (B)	95% C.1	
				Lower	Upper
The First Stage					
Health Education	,864	.107	2,373	,831	6,774
Health Services	1,031	,053	2,805	,989	7,958
Environmental Development	,764	,150	2,147	,758	6,081
Constanta	-1,673	,001	,188		
The Second Stage					
Health Education	,976	,062	2,062	,952	7,398
Health Services	1,071	.041	2,917	1,046	8,140
Constanta	-1,326	,002	,265		

Table 4 shows that the largest p value is the health education and environmental development variable (sig>0.05) so it must be excluded from the multivariate model. Based on the results of the second stage of the multiple logistic regression test, it can be concluded that of all the independent variables that are thought to influence reproductive health behavior, namely health services with a significant value of 0.041 < 0.05, Ha is accepted so that there is an influence of health services on adolescent reproductive health behavior. The health service variable has an Exp (B) value of 2.917, so health services have a 2.917 chance of influencing adolescent reproductive health behavior.

DISCUSSION

The results of this study produced two findings. The first finding is that the majority level of understanding of health education in UKS and reproductive health was in the 'Poor' category (56.9%), health services in UKS were in the 'Poor' category (51.4%), environmental health development was in the 'Poor' category (52.8%), and reproductive health behavior in the 'Poor' category (58.3%) (Table 2).

The second finding is that there is a association between adolescent reproductive health behavior and health education, health services and environmental development (Table 3). Those two findings indicate that the problem faced by teenagers in schools related to the implementation of school health unit services is that there are insufficient educational efforts, services and environmental health guidance.

The goal of education is to change behavior (Mustafa & Dwiyogo, 2020). This behavior concerns the cognitive, affective, and psychomotor domains (Mansyur, 2020; Sadikin *et al*, 2020) . The goals of school health services must be in line with educational goals and national health goals, as stated in the health law and education law (Suprapto & Malik, 2019; Ministry of Education of Republic Indonesia Law, 2003).

Several researchers discuss that adolescent behavior begins in the cognitive domain as a stimulus to cause an inner response in the form of attitudes (Puspitowati *et al*, 2021). This stimulus will cause a further response, namely in the form of action. Knowledge is a person's

first step in determining their attitudes and behavior (Herlina, 2023). So the level of adolescent knowledge about health will greatly influence their health attitudes and behavior. This can be done through structured school health programs. Structured programs are not only recommended academically but are usually proven through research results.

A healthy school environment is a condition of the school environment that can support the optimal growth and development of students, form clean and healthy living behavior, and avoid negative influences (Winarno, Muhtadi, & Aldiya, 2019). The school environment is a good place for health education which can provide knowledge, skills, and social support from the school community.

This knowledge, skills, and social support provide changes in adolescent reproductive health behavior. The school environment plays a big role in building a good self-concept for teenagers so that they do not fall into juvenile delinquency (Nash *et al*, 2019). A conducive environment can help achieve adolescent reproductive health, avoid premarital sex, drugs and early marriage (Munawaroh, 2017). Reproductive health problems are not only individual problems but are a collective concern, especially adolescent reproductive health problems (Nurbadlina, Shaluhiyah, Suryoputro & Street, 2022).

The lack of knowledge and health behavior related to reproductive health will have a broad impact on various aspects of adolescent life in the future. It is hoped that an organized and sustainable school health program can improve the harmonious and optimal growth and development of teenagers so that they become quality human resources.

CONCLUSION

This research has attempted to uncover three fundamental issues that influence adolescent reproductive health attitudes through school health services. These findings prove that there is a significant influence of these three aspects on adolescent reproductive health attitudes.

The limitations of this research, apart from not involving a larger number of respondents, were that it did not involve school health workers so it was more objective. It is hoped that there will be an active role from the school, both the principal, teachers, and the entire school community in implementing school health optimally.

In this case, teachers play a role in providing continuous information to students regarding the implementation of school health.

Apart from that, it is hoped that there will be good cooperation between the school and the health service or community health center so that the running of the school health program is more conducive so that the benefits can be felt more. Health service officers or community health centers can provide more optimal guidance and direction regarding the implementation of UKS in schools so that school health services can run as expected.

The research recommendation for future research is to expand the number of respondents and their regions so that they can represent the national or regional level, in addition to the need to involve school health workers so they can provide more concrete input.

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CONFLICT OF INTEREST DISCLOSURE

Researchers did not have any conflict of interest during the research process.

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