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The Effectiveness of Health Education Through Audiovisual Media and Leaflets on Adolescent's Attitudes Toward Early Pregnancy

Rizqitha[1] *Ahmad Maulana Nuruzzaman*[2] *Indrie Aulia Rifni*[3]

[1]*Institut Karya Mulia Bangsa, Indonesia*

[2]*Institut Agama Islam Pemalang, Indonesia*

[3]*Universitas Prima Nusantara Bukittinggi, Indonesia*

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CORRESPONDENCE

Phone: +62 81542519744

E-mail: erlmundrizqitha@gmail.com

A B S T R A C T

Early pregnancy among adolescents remains a significant public health concern because it contributes to maternal morbidity and mortality. Health education is an important strategy to improve adolescents attitude toward reproductive health issues, including early pregnancy. This study aimed to analyze the effectiveness of health education delivered through audiovisual media and leaflets on adolescents attitudes toward early pregnancy. The design is a quasi-experimental with a pretest-posttest control group approach. The study was conducted at a senior high school in South Magelang District. The population consisted of tenth-grade female students, and samples were selected using proportional random sampling. Respondent completed a questionnaire to assess their attitudes before (pretest) and after (posttest) receiving health interventions. The result showed that both audiovisual media and leaflet-based education were effective in improving adolescents attitude toward early pregnancy, with no significant difference between the two educational media (p=0.852). These findings suggest that booth audiovisual and leaflet media can be effectively used as educational tools to promote positive attitudes among adolescents regarding early pregnancy prevention. Health services and educational institutions are encourage to utilize various educational media to enhance adolescent awareness and attitudes toward reproductive health issues.

Keywords: adolescent attitude, early pregnancy, health education, audiovisual media, leaflet.

I. INTRODUCTION

Adolescent pregnancy is a major reproductive health issue that can negatively affect both maternal and child health (World Health Organization, 2022). Early pregnancy often occurs due to limited knowledge, lack of awareness, and inadequate attitudes toward reproductive health among adolescents. According to regional health reports in Central Java, maternal mortality remains relatively high, and pregnancy-related complications are among the leading causes of death among adolescents aged 15-19 years (Indonesia Ministry of Health, 2021)

Data from local health program reports in Magelang City indicated an increasing number of first pregnancies among adolescents under the age of 20, particular in South Magelang District. This situation highlights the need for effective educational strategies to improve adolescent's attitude toward early pregnancy and reproductive health.

Health education plays a crucial role on shaping adolescent's attitudes and behaviors. Various educational media can be used to deliver health information, including audiovisual materials and printed leaflets. Audiovisual media may enhance understanding through visual and auditory stimulation, while leaflets provide concise written information that can be read repeatedly. (United Nations Population, 2020)

Improving adolescent's attitudes toward early pregnancy prevention is essential to reduce the risk of teenage pregnancy. Therefore, this study aimed to determine the effectiveness of health education using audiovisual media and leaflets in improving adolescent's attitudes toward early pregnancy.

II. METHODS

This study employed a quasi-experimental research design using a pretest-posttest control group approach. The research was conduct at a senior high school in South Magelang District.

This study population consisted of female students in grade X (ten). The sample was selected using proportional random sampling. Participants were divided into two groups according to the educational media used.

Before the intervention, respondent completed a pretest questionnaire to assess their attitudes toward early pregnancy. Afterward, health education sessions were conducted using two types of media: 1. Audiovisual media; 2. Leaflet Media.

Following the educational intervention, respondents completed a posttest questionnaire to evaluate changes in their attitudes.

The collected data were analyzed to determine whether there were differences in adolescent's attitudes before and after the intervention and to compare the effectiveness of two educational media.

III. RESULT

The study involved 116 female students who were divided into two groups: the leaflet group (58 respondents) and the audiovisual group (58 respondents).

Table 1. Adolescent's Attitudes Toward Early Pregnancy Before and After Health Education Using Leaflet Media

	Attitude Category		Mean Score	p-Value*	Total
	Good Attitude	Poor Attitude			
Pretest	24 (41,38%)	34 (58,62%)	68.03	0.189	58 (100%)
Posttest	31 (53,45%)	27 (46,55%)	85.84		58 (100%)

*McNemar Test

In the leaflet group, before the intervention, most respondents had a poor attitude toward early pregnancy, with 34 respondents (58.62%), while 24 respondents (41.38%) had a good attitude. After receiving health education using leaflet media, the number of respondents with good attitudes increased to 31 respondents (53.45%), while those with poor attitudes decreased to 27 respondents (46.55%). The mean attitude score increased from 68.03 before the intervention to 85.84 after the intervention. However, the statistical test showed that the difference was not statistically significant (p=0.189).

Table 2. Adolescent's Attitudes Toward Early Pregnancy Before and After Health Education Using Audiovisual Media

	Attitude Category		Mean Score	p-Value*	Total
	Good Attitude	Poor Attitude			
Pretest	26 (37.93%)	32 (62.07%)	68.76	0.23	58 (100%)
Posttest	33 (56.90%)	25 (43.10%)	90.76		58 (100%)

*McNemar Test

In the audiovisual group, before the intervention, 32 respondents (62.07%) had poor attitudes and 26 respondents (37.93%) had good attitudes toward early pregnancy. After the educational intervention using audiovisual media, the number of respondents with good attitudes increased to 33 respondents (56.90%), while those with poor attitudes decreased to 25 respondents (43.10%). The mean attitude score increased from 68.76 before the intervention to 90.76 after the intervention. The statistical test showed that the change in attitude was not statistically significant (p=0.23).

Table 3. Comparison of Posttest Adolescent's Attitude Scores Between Educational Media

	Mean Score	p-Value**
Leaflet	85.84	0.852
Audiovisual	90.76	

**Chi-square Test

When comparing both intervention groups, the mean posttest attitude score in the audiovisual group (90.76) was higher than that in the leaflet group (85.84). However, the Chi-square test showed no statistically significant difference in adolescent's attitudes between the two educational media (p=0.852)

IV. DISCUSSION

The results of this study indicate that health education using both leaflet and audiovisual media can improve adolescent's attitudes toward early pregnancy prevention. The increase in the mean attitude score after the intervention suggest that providing reproductive health information plays an important role in shaping adolescent's perceptions and attitudes.

The improvement in adolescent's attitudes after health education is consistent with previous studies which reported that educational interventions significantly influence adolescent's attitudes toward reproductive health. A study by Aulia, Y et al. (2025) found that reproductive health education provided to high school students significantly improved adolescent's attitudes toward the prevention of early pregnancy.

Similarly, research conducted by Ratnasari, D et al. (2024) reported that the use of audiovisual media in health education significantly increased adolescent's attitudes and awareness regarding reproductive health risks. Audiovisual materials provide visual and auditory stimulation that may enhance student's engagement and comprehension of health massages.

In addition, the effectiveness of leaflet-based health education found in this study aligns with research conducted by Putri, Y.H.S et al. (2025), which showed that printed educational materials remain effective in improving adolescent's attitudes because they provide concise and accessible information that can be reviewed repeatedly by students.

Although the mean posttest attitude score in the audiovisual group was higher than in the leaflet group, the difference between the two media was not statistically significant. This finding supports the study conducted by Denford et al. (2021), which concluded that different educational media can produce comparable improvements in adolescent's attitudes as long as the educational content is clearly delivered and relevant to adolescent's needs.

V. CONCLUSION

Health education delivered through audiovisual media and leaflets is effective in improving adolescent's attitudes toward early pregnancy. There was no significant difference in effectiveness between the two media, indicating that both can be used as appropriate educational tools.

Educational institutions and health services providers are encouraged to utilize diverse educational media to promote positive attitudes and awareness among adolescents regarding early pregnancy prevention.

Furthermore, this study provides a foundation for future research to explore the long-term impact of health education on adolescent's attitudes and behavioral outcomes related to reproductive health. Future studies are recommended to involve larger populations, include different educational settings, and examine

additional factors that may influence adolescent's attitudes. The application of innovative digital media and interactive educational approaches may also be explored to enhance the effectiveness of reproductive health education programs among adolescents.

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