

The Effectiveness of Evidence-Based Education in Improving Adolescents' Knowledge and Attitudes Regarding the Risks of Early Pregnancy

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ABSTRACT

Early pregnancy among adolescents remains a health issue that can affect physical, psychological, social, and educational well-being. This study aims to determine the effectiveness of evidence-based education in enhancing adolescents' knowledge and attitudes regarding the risks of early pregnancy at SMP Negeri 1 Unter Iwes. This study employs a quantitative method with a pre-experimental design using the One-Group Pretest-Posttest Design. The research sample consisted of 50 respondents, comprising students at SMP Negeri 1 Unter Iwes, selected using purposive sampling. Data collection was conducted using a questionnaire assessing knowledge and attitudes before (pretest) and after (posttest) the provision of evidence-based education. Data analysis was performed using univariate and bivariate methods, specifically the Paired Sample t-test, with a significance level of $\alpha = 0.05$. The results showed that the proportion of respondents with good knowledge increased from 16% to 70%, while positive attitudes increased from 38% to 82% after receiving evidence-based education. The results of the statistical test showed a p-value of 0.000 ($p < 0.05$), indicating a significant difference in adolescents' knowledge and attitudes before and after the intervention. Thus, it can be concluded that evidence-based education is effective in increasing adolescents' knowledge and attitudes regarding the risks of early pregnancy at SMP Negeri 1 Unter Iwes. Therefore, evidence-based reproductive health education should be integrated on an ongoing basis into school health programs as a promotive and preventive measure to prevent early pregnancy among adolescents.

Keywords: Evidence-based education, early pregnancy, adolescents, attitudes, knowledge.

1. BACKGROUND

Adolescence is a period of transition from children to adults that is characterized by very significant biological, psychological, and social changes. At this stage, adolescents have a high level of curiosity, including in terms of sexuality and reproductive health. Lack of knowledge and access to accurate

information can make adolescents vulnerable to risky behaviors, one of which is early pregnancy [1]

Teenage pregnancy is one of the reproductive health problems that has a significant impact on the lives of individuals, society, and the nation. Adolescents who experience early pregnancy are at high risk of obstetric complications, psychological stress, school

dropouts, and low economic opportunities [2]. This phenomenon also contributes to the increase in stunting rates in the next child as well as the potential for psychological disorders for these adolescents.

Teen pregnancy negatively impacts the health of the adolescent and her baby, it can also have social and economic impacts. Pregnancy at a young age or adolescent includes the risk of premature pregnancy, low birth weight (BBLR), childbirth bleeding which can increase maternal and infant mortality. Teenage pregnancy is also related to unwanted pregnancy and unsafe abortion [3]

In developed countries, at least 39% of girls are married before they turn 18 and 12% before the age of 15. Meanwhile, in developing countries, at least 10 million unwanted pregnancies result from this occurrence and occur annually in adolescent girls aged 15-19 years. Based on the records of the United Nations Fund for Population Activities (UNFPA) [4] as many as 121 million pregnancies that occur every year in the world are unplanned. This figure represents 60% of the number of pregnancies in the world. Based on Good Mention Institute data cited in the 2022 stability report, the issue of unwanted pregnancies in Indonesia between 2015 and 2019 was as much as 40%. This number is close to the number of unwanted pregnancies in the world of 60% [5]

Based on the data of the West Nusa Tenggara Province's routine report, it was found that in 2020 there were 6532 adolescents aged 10-18 years (1489578.33%). In 2021, teenage pregnancies aged 10-18 years increased by 0.28%,

namely 6473 adolescents from 402261 adolescent girls (1.61%)

According to research conducted by Putri et al. shows that reproductive health counseling effectively improves students' knowledge ($p = 0.000$). Based on pretests, the average knowledge score of adolescents increased from 74.26 to 81.90 points [6]. The application of reproductive health education has also been shown to be effective in systematic studies, showing a significant increase in adolescents' knowledge and attitudes after interactive media-based interventions [7] it shows that reproductive health education is shown to increase adolescents' knowledge scores from 51.23 to 65.83 ($p < 0.05$) with intensive lecture and discussion methods about puberty, sexuality, and pregnancy prevention.

SMP Negeri 1 Unter Iwes as one of the formal schools in Sumbawa Regency has great potential as a location for adolescent health education interventions. Data from the Ministry of Education, Culture, Research, and Technology shows that the school has adequate educational facilities for learning and counseling activities.

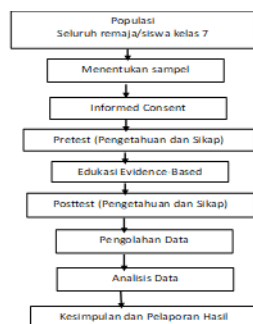
Evidence-based education is an effective approach because it uses learning strategies designed based on research results, adolescent needs, and local conditions. This intervention model is expected to increase adolescents' knowledge and attitudes towards early pregnancy prevention and behavioral changes towards a healthy and responsible lifestyle.

2. RESEARCH METHODS

This study uses a pre-experimental design with a one group pretest-posttest design, which is to take measurements before and after the administration of treatment to the same group without a comparison group.

The population in this study is all grade VII students who meet the research criteria, while the sample is selected using the purposive sampling technique, which is sampling based on certain considerations according to the purpose of the research, the sample obtained is 50 students. The research instrument used a questionnaire on knowledge and attitude questionnaires. Bivariate analysis using a t-test with the help of SPSS for Windows application with a significance rate of 5%. This test was conducted to find out whether or not there was a difference in the average score of knowledge and attitude of adolescents before and after being given evidence-based education about the risk of early pregnancy.

Figure 1. Data collection pipeline



3. RESULTS AND DISCUSSION

Table 1. Measurement of Knowledge before and after education

Remarks	Knowledge	
	<i>Pretest</i>	<i>Posttest</i>
Good	16 %	70 %
Enough	40 %	26 %
Less	44 %	4 %

From Table 1, it can be seen that there was an increase in the level of knowledge of respondents after being given evidence-based education about the risks of early pregnancy. Before being educated, most of the respondents had less knowledge, which was as much as 44%, while after being given education, most of the respondents had good knowledge, which was 70%. This shows that evidence-based education is able to increase adolescents' knowledge about the risk of early pregnancy.

Table 2. Results of Bivariate Analysis of Knowledge

Remarks	<i>Red</i>	<i>Sig-t-Test</i>
<i>Pretest</i>	63,20	0,000
<i>Posttest</i>	84,60	

Based on table 2 above, a value of sig (0.000) < 0.05 is obtained so that it can be concluded that there is a difference in the average of knowledge. Thus, it can be concluded that there is a significant difference between knowledge scores before and after the intervention. This shows that evidence-based education is effective in increasing adolescents' knowledge about the risk of early pregnancy.

This increase in knowledge can occur because the education provided uses information based on scientific evidence

and is delivered through interesting media, such as presentations, leaflets, educational videos, and interactive discussions. The use of various educational media allows adolescents to more easily understand the information received because it involves more than one sense in the learning process. Knowledge is the result of a person's sense of an object through the five senses, especially the senses of sight and hearing. The more information a person receives, the better his level of knowledge [8]

The results of this study are in line with the research conducted on reproductive health education in adolescents, which showed a significant increase in knowledge after being given health education, with a p-value of < 0.05 [9]. The study concluded that providing health education is one of the effective methods in improving adolescents' understanding of reproductive health. In addition, research also found that the provision of audiovisual media-based health education was able to significantly increase adolescents' knowledge about early pregnancy prevention after intervention [10].

Table 3. Attitude Measurement before and after education

Remarks	Attitude	
	<i>Pretest</i>	<i>Posttest</i>
Positive	38 %	82 %
Negatives	62%	18 %

Based on table 3 above, it can be seen that there is a change in respondents' attitudes towards a more positive direction after being given evidence-based education about the risks of early pregnancy. Before being given education. The increase in

positive attitudes from 38% to 82% shows that evidence-based education is able to form better attitudes in adolescents in responding to the risk of early pregnancy.

Table 4. Results of Bivariate Analysis of Attitudes

Remarks	<i>Red</i>	<i>Sig-t-Test</i>
<i>Pretest</i>	60,40	0,000
<i>Posttest</i>	79,80	

Based on table 4 above, a value of sig (0.000) < 0.05 was obtained so that it can be concluded that there is a significant difference between attitude scores before and after being given evidence-based education. Thus, evidence-based education has been proven to be effective in increasing adolescents' positive attitudes towards preventing the risk of early pregnancy.

Changes in attitudes in respondents can be influenced by the increase in knowledge gained during the education process. Good knowledge will form positive beliefs and perceptions so that it can influence a person's attitude in making decisions. Attitude is a closed response of a person to an object that is influenced by personal experience, culture, the influence of others who are considered important, mass media, and educational factors. Therefore, providing the right education can help form a more positive attitude towards the prevention of early pregnancy [11].

In line with research conducted by Rahmawati et al. (2021) which showed that reproductive health education has a significant influence on changes in adolescent attitudes in preventing risky behaviors, with a p-value = 0.001 [12]. Another study conducted by Putri et al. (2020) also reported that there was an increase in adolescents' positive attitudes

after being given reproductive health education interventions through lecture and group discussion methods.

Attitude is a closed response of a person to a stimulus that is influenced by experience, knowledge, social environment, and information obtained. Education provided systematically can help adolescents understand the consequences of early pregnancy so as to form a more positive attitude towards prevention efforts. The change in attitudes that occurred in this study showed that the provision of education not only improves the cognitive aspect, but is also able to affect the affective aspect of adolescents in responding to the risk of early pregnancy.

4. CONCLUSION

Based on the results of the research that has been conducted, it can be concluded that there is a significant difference between the average knowledge and attitude of adolescents before and after being given evidence-based education about the risk of early pregnancy at SMP Negeri 1 Unter Iwes. The results showed an increase in adolescent knowledge after the intervention, which was characterized by an increase in the proportion of respondents with the good knowledge category and an increase in positive attitudes towards early pregnancy prevention. The results of bivariate analysis using the Paired Sample t-test showed a p-value of < 0.05 , so it can be concluded that evidence-based education has an effect on improving adolescents' knowledge and attitudes about the risk of early pregnancy. Thus, evidence-based education can be used as one of the effective methods of

reproductive health education to increase understanding and form positive attitudes of adolescents in preventing early pregnancy. Therefore, it is expected that health workers, especially midwives, and schools to actively integrate scientific evidence-based reproductive health education activities into the School Health Business (UKS) program or routine counseling activities at school as a promotive and preventive effort in reducing the risk of early pregnancy in adolescents.

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