

Research Article

A Systematic Review: Knowledge of Reproductive Health in Adolescents

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ORCIDHarini: <https://orcid.org/0000-0001-9064-2530>**Abstract.**

Problems that often occur in adolescents include sexual problems, unwanted pregnancies, abortions, sexually transmitted diseases, and drug abuse. One of the causes of this problem is the lack of adolescent knowledge about reproductive health. Therefore, it is necessary to provide adequate reproductive health education for adolescents. But during this pandemic, education through telemedicine is considered safer as an effort to control the COVID-19 pandemic. This review aims to summarize and determine the effect of education through telemedicine on changes in the level of adolescent knowledge about reproductive health based on literature studies. A systematic review was conducted to examine the effectiveness of health education through telemedicine on adolescent knowledge levels about reproductive health. The study examined 7 articles obtained from Science Direct, PubMed, and Google Scholar with a Randomized Controlled Trial or quasi-experimental research design. The articles were published between 2016 and 2022 and were evaluated by Joanna Brings Institute (JBI) to examine their quality. Furthermore, research was explored and analyzed by Thematic Analysis. It was found that 20 journals showed a significant increase in the level of knowledge among adolescents about reproductive health, measured by before and after questionnaires. Based on the literature, health education through telemedicine has proven to be effective in increasing the level of adolescent knowledge about reproductive health.

Keywords: telemedicine, reproductive health, adolescent, free sex

1. Introduction

Adolescence is a period of transition or transition from children to adults. The World Health Organization (WHO) defines adolescents as individuals with an age range of 10-19 years, while based on the Regulation of the Minister of Health of the Republic of Indonesia in 2014, the age range of adolescents is 10-18 years. The National Population and Family Planning Agency (BKKBN) defines youth as unmarried individuals aged 10-24 years (1).

Adolescence is a period of rapid growth and development both physically, psychologically, and intellectually. The characteristics of teenagers who have a great curiosity, love adventure and challenges and tend to dare to take risks without careful consideration

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(2). One of the problems that occur during adolescence is the problem of sexuality, unwanted pregnancy (KTD) and abortion, infection with sexually transmitted diseases (STDs), and drug abuse. (3).

Adolescence is one of the most rapid development periods in the course of human life. The process of biological maturation generally precedes psychosocial maturity in adolescents. The development of the pre-frontal cortex, which is responsible for executive function, decision making, organization, impulse control and future planning, occurs more slowly than the development of the limbic system, which is responsible for pleasure and reward processing, emotional responses and sleep regulation. This causes teenagers to tend to be interested in exploring and experimenting without considering the consequences (4). Therefore, adolescents are one of the age groups that tend to be at risk of experiencing the adverse effects of free sex or free sex.

Data from the National Family Planning Coordinating Board (BKKBN) in 2010 noted that 51% of Indonesian teenagers had had sexual intercourse. Data from the Indonesian Child Protection Commission (KPAI) noted that as many as 32% of adolescents aged 14-18 years in 3 major cities in Indonesia (Jakarta, Surabaya, Bandung) had sexual intercourse before marriage, and proved that 62.7% of adolescents lost their virginity while still sitting in junior high school, and 21.2% of them had forced abortions (KPAI, 2013).

The high prevalence of sexual intercourse before marriage in adolescents is caused by several factors, and the most dominant factor is the lack of knowledge of adolescents about the dangers of free sex. Other factors that influence the incidence of free sex, namely the permissive attitude of adolescents, easy access to pornographic media and parenting patterns are factors that cause pregnancy in adolescents (5). Therefore, efforts are needed to overcome adolescent problems regarding free sex, one of which is by providing health education to increase the level of adolescent knowledge about reproductive health.

In connection with the Covid-19 pandemic, people are not encouraged to congregate with many people or apply physical distancing, and follow health protocols. Educational activities can be carried out online or using telemedicine as an alternative that is considered the safest to prevent virus transmission for both researchers and respondents. Based on a study conducted by (6) providing education on reproductive health to adolescents online still shows a significant effect on the level of knowledge of adolescents to be higher. Therefore, researchers are interested in conducting a literature study on the effect of telemedicine on changes in the level of knowledge about reproductive health in adolescents.

2. Method

This comprehensive literature source for this literature study is sourced from reliable and easily accessible databases such as Pubmed, Science direct, Garuda portal and research. Furthermore, the reference list of retrieved articles was also scanned for additional articles. The inclusion criteria used by the researchers were (a) international and national journals published in the last 10 years and accessible in full text, (b) journals with the topic of providing education through telemedicine and the level of adolescent knowledge about reproductive health, (c) journal research articles with a design Randomized Controlled Trial (RCT), Quasy Experimental, and Comparative Study, with the researcher using the keywords "telemedicine AND reproductive health AND adolescent". For national journals, the keywords are "telemedicine + reproductive health + youth". All included studies (fig.1) were also assessed using a checklist instrument published by the Joanna Briggs Institute (JBI) according to the type of research conducted by each literature. The type of checklist instrument that will be used is adjusted to the research inclusion criteria, namely the assessment of a randomized controlled trial (RCT) and a quasi experimental study.

In addition, of the 20 journals that have been reviewed, all journals have several different methods but have an effect on the health of adolescents. There is a significant relationship between several methods of telemedicine with adolescent knowledge about reproductive health. In addition, some of the methods carried out also provide effectiveness in accelerating adolescents in knowing the importance of reproductive health, even in the conditions of the Covid-19 pandemic.

3. RESULT

4. Discussion

Based on the literature study that has been carried out, the studies that have been carried out show that health education through counselor-based telehealth for adolescents is proven to increase the knowledge level of adolescents about reproductive health. Health education is an effort to increase the insight or level of public knowledge about certain health conditions. It aims to create public behavior that is conducive to health, so that it can make people aware or know how to maintain health and avoid or prevent things that are detrimental to health.

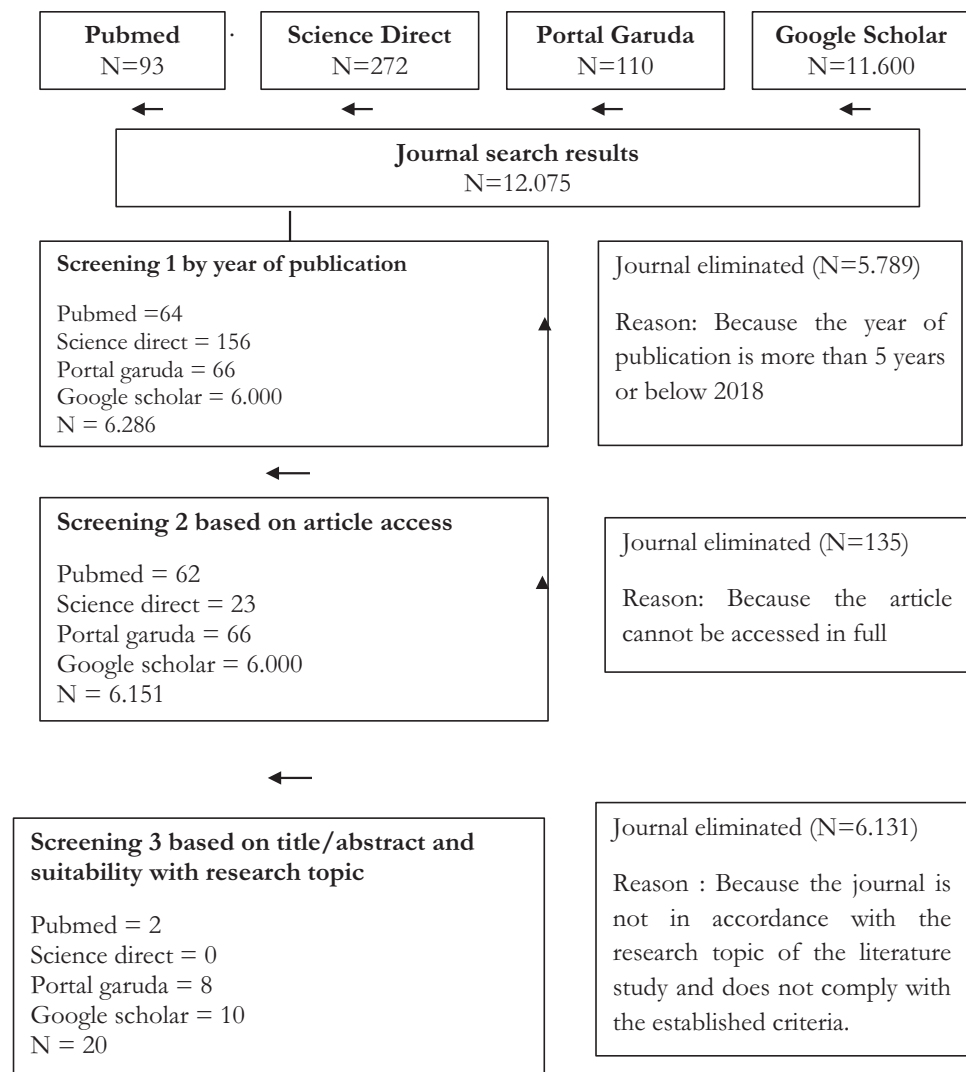


Figure 1: Literature Review Scheme.

Another objective of providing health education is to achieve changes in the behavior of individuals, families, and communities in fostering and maintaining healthy behavior and a healthy environment, as well as playing an active role in efforts to achieve optimal health degrees. In the process of delivering health education, there is a learning process for individuals who are given health education. The learning process actually consists of three stages, namely Assimilation, Accommodation, and Equilibration (balancing). The assimilation process is the process of unifying (integrating) new information into cognitive structures that already exist in the minds of students. Accommodation is the adjustment of cognitive structures to new situations. Equilibration is a continuous adjustment between assimilation and accommodation (4).

Based on the theory, knowledge is the result of knowing, after people have sensed certain objects through the senses of sight, hearing, taste, and body. Knowledge is a

TABLE 1: Summary of studies included.

No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
1.	Assessing the reach and effectiveness of mHealth: evidence from a reproductive health program for adolescent girls in Ghana, <i>BioMed Central Public Health</i> (7)	Pubmed NCBI	D:- S: 498 adolescent girls aged 14-24 years in 22 secondary schools in Accra, Ghana, divided into 2 groups, namely intervention (n=205) and control (n=293) V: Adolescents' level of knowledge and interest in engaging in mHealth I: Scoring of youth answers on the mHealth quiz. A: Poisson regression model, logistic regression	It was found that 81% of adolescents were involved in the mHealth program and it was proven effective in increasing knowledge about sexual and reproductive health among adolescent girls in Ghana.
2.	<i>Effect of mHealth tool on knowledge regarding reproductive health of school going adolescent girls: a before-after quasi-experimental study</i> (8)	Pubmed NCBI	D: Quasy eksperimental – pre and posttest design S: 400 female students aged 14-19 years who have mobile phones to access mHealth V: the level of knowledge of adolescents about reproductive health I: pre and posttest questionnaires A: Paired t-test	1. The use of the mHealth tool has proven to be effective in increasing the level of knowledge of adolescent girls about reproductive health with the results of data analysis showing p value < 0.00 The average level of knowledge of students has increased from 44.71 to 70.8 after using the mHealth tool.
No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
3.	Adolescent Reproductive Health Education During the Covid-19 Pandemic in Tabanan Regency in 2020 (4)	Google Scholar	D: Pre and post test design S: 205 high school students in Tabanan Regency with an age range of 15 to 17 years V: the level of knowledge of adolescents about reproductive health I: Questionnaire on reproductive health knowledge Participants are given a pretest when registering as an online education participant, then a posttest is given as an evaluation at the end of the education process A:-	There is an increase in the level of knowledge of adolescents after online education related to reproductive health and the maturity of adolescent reproductive organs is carried out in Tabanan Regency. The level of knowledge about reproductive health with the criteria of "know" has increased from 78% at the pretest to 98% at the posttest.
4.	The Effect of Health Counseling With Social Media on Students' Knowledge Levels About Reproductive Health (3)	Google Scholar	D: pre-experiment with one group pretest and posttest design S: 40 students in grade 11 IPA 5 at SMA Negeri 5 Wajo. V: level of knowledge regarding reproductive health I: questionnaire on reproductive health A: test paired t-test	1. There is an increase in knowledge about adolescent reproductive health after online education through WhatsApp groups, videos and leaflets on reproductive health is carried out with a value of p = 0.00 2. The average level of knowledge of students increased from 11.72 to 20.22 after education.
No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
5.	Providing Health Education Through Telenursing to Increase Knowledge and Prevention of Pathological Leucorrhoea in Adolescents (6)	Google scholar	D: Quasy experimental dengan pre and posttest design S: 22 female students at SMK Negeri 2 Bukittinggi. V: level of knowledge regarding the prevention of pathological vaginal discharge I: questionnaire A: Paired test	There is an effect of providing health education through telenursing on the prevention of vaginal discharge between before and after. The average value of knowledge and prevention of pathological vaginal discharge increased from 27.18 to 33.82.

very important factor for the formation of actions and information obtained by a person, because behavior based on knowledge will last longer than behavior that is not based on knowledge.

TABLE 1: (Continued).

No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
6.	Increasing Adolescent Knowledge and Attitudes About Reproductive Health Through Health Education in the Form of Adolescent Reproductive Health Nursing Service Applications (Lawan Roma) in Middle School Working Area of Bawen Health Center Semarang Regency (9)	Google scholar	D: Quasy experimental – pre and posttest design S: The population in this study were all students in the junior high school (SMP) working area of the Bawen Health Center as many as 1508 adolescents, with a sample of 36 adolescents divided into 2 groups, namely intervention (n=18) and control (n=18). I: the inclusion criteria of owning a smart-phone. V: the level of knowledge of adolescents about reproductive health I: questionnaire A: T-test independent	1. There is an increase in knowledge about reproductive health after being given health education with a value of $p = 0.012$ There was an increase in reproductive health attitudes with p value = 0.001.
7.	The Effectiveness of Health Education Using Audio Visual Media on Increasing Adolescent Knowledge About Pre-Marriage Sex at SMA Negeri 1 Tuntang (10)	Google Scholar	D: quasy experiment with group pre-post test design. S: The research population is the students of class X and XI of SMA Negeri 1 Tuntang as many as 602 students, the sampling technique using the Stratified Random Sampling technique is 86 respondents V: the level of adolescent knowledge about premarital sex and prevention of pathological vaginal discharge I: Questionnaire of knowledge about premarital sex and prevention of pathological vaginal discharge A: Wilcoxon test	1. The level of knowledge about premarital sex increased, namely before being given education by 12.77 to 27.18 after being given education ($p = 0.0001$). The level of knowledge regarding the prevention of pathological vaginal discharge increased from 18.55 to 33.82 after being given education ($p=0.0001$).
8.	<i>Effect of education based on protection motivation theory on adolescents' reproductive health self-care: a randomized controlled trial</i> (11)	Google scholar	D: Randomized controlled trial S: 90 female students living in the dormitories of the Aborz University of Medical Sciences in Iran. V: Education, motivation theory, reproductive health self-care I: Protection Motivation Theory Questionnaire A: Fisher's exact test, standard deviation.	The theory of protection motivation affects reproductive health self-care including: reproductive and sexual knowledge, knowledge about STDs and HIV, young women's perceptions of premarital sex, understanding and behavior of young women in interacting with men, interaction of young women with their families, barriers to adolescent discourse with parents about sexual issues and the maintenance of reproductive and menstrual health. Short-term adolescent sexual education programs are more focused on reproductive health outcomes (contraception, knowledge and awareness about AIDS and STDs as well as encouraging self-control and the use of contraception and condoms). Interventions in the field of adolescent sexual and reproductive health including education and provision of contraceptive methods affect contraceptive use and reduce unwanted pregnancies The results of research on adolescent reproductive health show that students feel most of the barriers to reproductive and sexual health, and thus most students think that education and health services are inadequate. Discussion and talk about sexual issues are very limited at home and in the community because it is taboo, and most girls are afraid to talk about sexual and reproductive health. 96.6% of girls have access to social networks, and 63.3% report that they watch porn. Due to communication technology, it is easy to access all kinds of true and false information via Internet, satellite, cell phone, etc.

TABLE 1: (Continued).

No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
9.	<i>One household, two worlds: Differences of perception towards child marriage among adolescent children and adults in Indonesia</i> (12)	Google scholar	D: Cross sectional S: 1.004 responden yang terdiri dari 500 orang tua dan 504 remaja berusia 13-15 tahun V: Perception toward child marriage, parent, reproductive health. I: For adolescents at school: data was collected through questionnaires. The questionnaire used paper, whilst for the parent/caregiver survey, data collectors used the mWater Surveyor App on tablets. A: Mann Whitney U-test, Kendall's Tau-b test, Pearson's Correlation test.	29.6% of parents and 33.4% of adolescents strongly agree/agree/slightly agree that marrying a girl can help protect family honor/reputation. Marriage is sometimes used as a means to get out of poverty and rise to a higher social status. Approximately 23.2% of parents and 26.0% of adolescents strongly agree/agree/slightly agree that marrying a young girl can help solve financial problems in the family About 57.8% of parents and 53.6% of adolescents strongly agree/agree/slightly agree that parents will look down on young girls if they get pregnant before marriage. There are different perceptions regarding unwanted pregnancy, with stronger support for child marriage as a solution from parents compared to adolescents. About 25.8% of parents and 26.0% of adolescents strongly agree/agree/disagree that a girl is ready to marry after starting menstruation, 26.0% of parents and 26.6% of adolescents agree that physical changes in appearance is a sign that a girl is ready to marry. About 25.2% of parents and 29.4% of adolescents strongly agree/agree/slightly agree that early marriage of girls can help prevent sexual violence, assault and harassment.
10.	<i>Audio-visual to improve reproduction knowledge among adolescent</i> (13)	Google Scholar	D: Quasy experimental - pre and post intervention S: 153 junior high school students grades 1-3 at SMP Negeri 4 Ngoro-oro, Patuk, Gunungkidul, Yogyakarta V: the level of knowledge of adolescents about reproductive health I: The education is done by means of an educational video containing about sexual health education for teenagers with a duration of about 20 minutes. To keep the respondents focused during the intervention, the researcher asked some questions about the educational material. n gave simple questions to the respondents. A: Wilcoxon test	Adolescents who received education through audio-visual media experienced an increase in the average level of knowledge about reproductive health from 34.4 to 35.83 with p value = 0.000
11.	<i>The Effect of Health Promotion Using Leaflets and Audio-Visual on Improving Knowledge and Attitude Toward the Danger of HIV/AIDS Among Adolescents</i> (14)	Google Scholar	D: Quasy experimental – pre and posttest design S: 53 adolescent students at Imelda private vocational high school, Medan V: The level of knowledge and attitudes of adolescents about the dangers of HIV/AIDS I: Respondents were given an intervention in the form of health education about HIV/AIDS through leaflets and audio-visual media. Questionnaires were given before and 2 weeks after the intervention to measure changes in the level of knowledge and attitudes of adolescents after being given an intervention in the form of education through audiovisual media and leaflets. A: Wilcoxon test	The provision of health education through leaflets and audiovisual media proved effective in increasing the knowledge and attitudes of adolescents about the dangers of HIV/AIDS with p value = 0.00. Prior to intervention, 3.8% of adolescents had a good level of knowledge about the dangers of HIV/AIDS, 79.2% moderate, and 17% poor. After being given the intervention, the knowledge level of adolescents increased to 60.4% good and 39.6% adequate and there were no adolescents with poor knowledge levels. Prior to the intervention, 5.7% of adolescents had good attitudes about the dangers of HIV/AIDS, 79.2% were moderate, and 15.1% were poor. After being given the intervention, the attitude value of adolescents increased to 60.4% good and 39.6% enough and there were no adolescents with poor knowledge levels.

One of the most influential factors in the formation of knowledge is the social environment. The social environment will support the level of knowledge of a person,

TABLE 1: (Continued).

No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
12.	<i>Effect of Mobile HEalth Edication on Sexual and Reproductive Health Information among Female School-going Adolescents od Rural Thailand</i> (15)	Google Scholar	D: A comparative cross-sectional study with pre-post design S: 128 students from 2 different schools with the same ratio, and randomly divided into 2 groups with similar ratio, control (n=64) and intervention (n=64) V: literacy scores on sexual health. I: the intervention group received treatment in the form of sending messages or SMS regarding sexual health literacy, once a week on a regular basis for 24 weeks. While the observation group did not receive special treatment. A: Chi-square, one way ANOVA, independent t-test	The average value of changes in adolescent literacy scores regarding sexual health in the treatment group experienced a significant increase with the results of data analysis showing the p value = 0.00. The observation / control group did not experience a change in literacy scores regarding sexual health compared to the control group with the results of data analysis showing a p value of 0.103 to 0.521.
13.	Comparison of Adolescent Knowledge About the Impact of Pregnancy on Adolescents Before and After Reproductive Health Education is Given through Video Media (16)	Portal garuda	D: Quasi eksperimental with one group pre and post test design S: 52 students of SMAN Jatinangor with an age range of 17-19 years. V: Independent: reproductive health education through video media. Dependent = the level of knowledge of adolescents about the impact of pregnancy. I: Questionnaire A: kolmogorov-smirnov dan uji Wilcoxon	There is a difference in adolescent knowledge before and after being given health education through videos about the impact of teenage pregnancy with a p value of 0.000. The level of knowledge in the "good" category increased from 19.2% before to 94.2%.
14.	Development of Games, Education, and Visualization (GEV)-Based Physical Education Learning Models to Increase Adolescent Reproductive Health Knowledge (17)	Portal garuda	D: Research and Development (RnD) S: The limited trial was conducted on 28 8th grade students of SMP Negeri 2 Purwokerto, the large-scale trial was conducted on 90 8th grade students at SMP Negeri 1,2 and 8 Purwokerto. V: the level of knowledge of adolescents about reproductive health I: Questionnaire A: quantitative descriptive analysis	The physical education learning model consisting of three stages including case studies, education and visualization developed in this study is appropriate to be used as a learning model for junior high school students through expert judgment. The physical education learning model developed has a high level of effectiveness to increase students' knowledge and awareness about reproductive health.
15.	Utilization of Mobile Electronic Media as A Means of Adolescent Reproductive Health Education at SMP 8 Cirebon City (18)	Portal garuda	D: Quasi eksperiment – one group pre and posttest design. S: 50 students of SMP Negeri 8 Cirebon City V: the level of knowledge of adolescents about reproductive health I: Pre and posttest questionnaires. Conducted counseling for 3 times, then given Micro SD so they can play at home which contains knowledge about Adolescent Reproductive Health which consists of 3 videos, namely adolescent reproductive organs, adolescent psychology, and the consequences of early marriage. Evaluation is done by giving a questionnaire of 35 questions True or false, At the end of the activity, the Peer Extension Organization was formed, and they were tried to do counseling to their peers A: -	Students with a "good" level of knowledge increased from the pretest by 38% and at the posttest to 76% Students with "sufficient" knowledge level decreased from 54% at pretest and 24% at posttest Students with "less" knowledge level decreased from 8% pretest to 0% at posttest.

while the economy is associated with education, both the economy and the level of education will be high so that the level of knowledge will be high as well, then Culture (culture, religion). Culture will greatly affect a person's level of knowledge, because new

TABLE 1: (Continued).

No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
16.	The Effect of Health Education with Stratagem Method with Audiovisual Media on Adolescent Reproductive Health Knowledge (19)	Portal garuda	D: quasi eksperimen design pendekatan non-equivalent control group. S: 30 people were divided into 2 equal groups, namely the treatment of strategic education through audiovisual (n=15) and control who received education through lectures (n=15) V: Independent = health education stratagem method with audiovisual media. Dependent = knowledge level of adolescent reproductive health I: Questionnaire on adolescent reproductive health knowledge A: Wilcoxon dan Mann Whitney	The level of knowledge in the audiovisual strategy group increased with p value = 0.014. Respondents with "good" knowledge increased from 6.7% to 20%. Respondents with "sufficient" knowledge level increased from 66.7% to 80%. Respondents with "less" knowledge level decreased from 26.7% to 0%. There was no increase in the level of knowledge in the lecture group with a value of p = 0.083. Respondents in the lecture group did not meet the "good" category with a score of 0% before and after health education was carried out. Respondents with "sufficient" knowledge level increased from 66.7% to 80%. Respondents with a low level of knowledge decreased from 33.3% to 20%.
17.	The Effect of Audiovisual Health Education on Adolescent Reproduction on Knowledge of Premarital Sexual Behavior (20)	Portal Garuda	D: Quasi eksperimen dengan non-equivalent control group design S: 94 respondents were taken using a stratified random sampling technique, divided into 2 groups equally, namely treatment (n=47) and control (n=47). V: the level of knowledge of adolescents regarding premarital sexual behavior I: a questionnaire to measure the knowledge of adolescent sexual behavior in knowing and understanding premarital sexual problems in adolescents with interpretations of less, sufficient and good. A: Wilcoxon Signed Rank Test	There is an effect of providing health education through audiovisual about adolescent reproductive health on knowledge of premarital sexual behavior with p = 0.00. The results of the pretest of the treatment group stated that 2% had a poor level of knowledge, 98% was sufficient and 0% was good. The results of the posttest showed that 100% of the respondents had a good level of knowledge. The results of the pretest in the control group showed that 51% of respondents had poor knowledge levels, 49% were sufficient and 0% were good. The posttest results showed 4% with poor knowledge level, 68% sufficient and 28% good.
18.	The Effect of Adolescent Reproductive Health Education through Animation Media on Changes in Knowledge and Attitudes in Junior High School Students at the Nurul Jadid Islamic Boarding School (21)	Portal garuda	D: Quasi Experimental Design dengan pretest-posttest control group design S: 100 7th grade junior high school students at Pondok Nurul Jadid. Divided into 2 groups equally, namely treatment (n=50) and control (n=50). V: Independent = health education through animated media. Dependent = the level of knowledge and attitudes of adolescents about reproductive health. I: Pre and posttest questionnaires regarding adolescent reproductive health knowledge and attitudes A: T-test independent	There is an effect of providing adolescent reproductive health education through animation media on changes in the level of adolescent knowledge about reproductive health with a p value = 0.001. There is an effect of providing adolescent reproductive health education through animation media on changes in adolescent attitudes about reproductive health with p value = 0.001.
19.	The Effect of Health Education on Reproductive Health through Internet Electronic Media on the Knowledge Level of Young Women in Bolaang Mongodow Regency, North Sulawesi (22)	Portal garuda	D: Quasi Eksperimen dengan rancangan penelitian one group pretest posttest S: 44 students at private Vocational Schools in Boolang Mongindow Regency with inclusion criteria willing to be respondents and exclusion criteria for students infected with the Covid-19 virus V: Independent = adolescent reproductive health education through internet electronic media. Dependent = level of knowledge of adolescents about reproductive health. I: Questionnaire adopted from Mursit's research (2018) which consists of question components: understanding, adolescent sexual growth & development, anatomy of female reproductive organs, process of pregnancy, STI, HIV/AIDS and unwanted pregnancy in adolescents. A: Wolcoxon test	1. Health education about reproductive health through the internet electronic media has proven to be effective in increasing the level of knowledge of young women about reproductive health with p value = 0.000. After being educated through the internet electronic media, students with "bail" knowledge levels increased from 34.1% to 65.9%.

information will be filtered according to or not with the existing culture and religion.

TABLE 1: (Continued).

No	Article title, author, year	Journal Site	Method (Design, Sample, Variable, Instrument, Analysis)	Research result
20.	Development of a Reproductive Health Education Comic Module on Increasing Adolescent Knowledge and Attitudes About the Impact of Premarital Sex at SMAN 2 Singaraja, Buleleng Regency, Bali Province (23)	Portal Garuda	D: Quasi Experiment with desain pretest-posttest with control group design S: The experimental group population was 405 with proportional random sampling method, obtained a sample of 87 people and the control group with a population of 181 obtained a sample of 70 people. V: Independent = health education with comic modules (treatment) and leaflets (control). Dependent = level of knowledge and youth about reproductive health. I: The research instrument uses comics media, leaflets and questionnaires that have been developed by researchers A: T-test independent and Uji Manova	1. The experimental group (comic module) was more influential in increasing adolescent knowledge about reproductive health compared to the control group (leaflet) with $p < 0.01$ The experimental group (comic module) was more influential in improving adolescent attitudes about reproductive health compared to the control group (leaflet) with $p \text{ value} < 0.01$

Experience related to the age and education of the individual, that the higher the education, the wider the experience, while the older a person is, the more experience (13).

5. Conclusion

Based on the results of the literature study, it was found that reproductive health education for adolescents based on peer counselors through telehealth was proven to be effective in increasing the level of adolescent knowledge about free sex. There is an effect on increasing the level of knowledge of adolescents about reproductive health after being given health education through telemedicine based on peer counselors in adolescents based on the results of a literature study.

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