



The SHARING-AJA Website for Adolescent Reproductive Health Knowledge Levels

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ABSTRACT

Risk of sexual behaviour, abortion, and early marriage are the most common reproductive health problems in adolescents. Prevention strategies with digital technology are considered effective and appropriate by the development of adolescents. The aim of this study to analyze the use of SHARING AJA (Sadari keseHAtan Reproduksi saNG remaJA) media as an online educational media for the promotion of reproductive health. Study was Quasi-experimental with one group design approach (pre-post-test) in 26 respondents selected by consecutive sampling. Inclusion criteria are unmarried, have internet access via smartphone or laptop and are willing to be research respondents. The intervention was in the form of access to SHARING AJA for four weeks. The research instrument used a pre-test and post-test questionnaire. Data analysis using paired t-test. Results showed there is a significant difference between the knowledge of adolescents after being given intervention with a p-value of 0.001. The majority of respondents are satisfied with the use of the website with the highest average satisfaction on the ease of learning about reproductive health anytime and anywhere with a mean value of 4.27 ± 0.92 . Conclusion were socialization and integration of the SHARING AJA website for the learning process and youth health development program in schools in collaboration with schools and public health centres.

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ABSTRAK

Masalah kesehatan reproduksi pada remaja meliputi perilaku seks berisiko, aborsi, dan pernikahan dini merupakan masalah yang paling sering terjadi. Strategi pencegahan berupa upaya promosi kesehatan dengan teknologi digital dinilai efektif dan tepat sesuai dengan tumbuh kembang remaja. Tujuan penelitian untuk menganalisis penggunaan media SHARING AJA (Sadari keseHAtan Reproduksi saNG remaJA) sebagai media edukasi online untuk promosi kesehatan reproduksi. Metode penelitian adalah Quasi eksperimental dengan pendekatan one group design (pre-posttest) pada 26 responden dipilih dengan consecutive sampling. Kriteria inklusi belum menikah, memiliki akses internet melalui smartphone atau laptop dan bersedia menjadi responden penelitian. Intervensi berupa akses ke SHARING AJA selama empat minggu. Instrumen penelitian menggunakan kuesioner pretest dan post-test. Analisa data menggunakan Uji paired t-test. Hasil didapatkan perbedaan yang signifikan antara pengetahuan remaja setelah diberikan intervensi dengan p-value 0,001. Mayoritas responden puas terhadap penggunaan website dengan rerata kepuasan tertinggi pada kemudahan untuk mempelajari tentang kesehatan reproduksi kapan saja dan dimana pun berada dengan nilai rerata $4,27 \pm 0,92$. Kesimpulan yaitu sosialisasi dan integrasi website SHARING AJA untuk proses pembelajaran dan program pembinaan Kesehatan remaja di sekolah dengan kolaborasi bersama sekolah dan Puskesmas Wilayah

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INTRODUCTION

The adolescent population is a risk group seen from the phase of growth and development. The process of transition from child to adult which is characterized by physical, emotional, psychological and lifestyle changes allows adolescents to be at risk of experiencing health problems if they are not able to adapt these changes (Herwati, 2017). Maturity of the reproductive system, including wet dreams in male adolescents and menstruation in female adolescents causes the emergence of sexual urges in adolescents which are shown in sexual behavior. The most common health problems experienced by adolescents are reproductive health problems with examples of problems that often arise are pregnancy before wedlock, risky sexual behavior, abortion, sexually transmitted diseases and early marriage (Puspasari et al, 2017).

Reproductive health education is one strategy that is expected to reduce or prevent sexual behavior deviations in adolescents. The results of the 2010 Youth RPJMN Indicator Survey showed that there was an influence between knowledge about reproductive health and premarital sexual behavior in adolescents. Health education about sexual transmitted diseases (HIV/AIDS), fertile periods, and the risks of sexual intercourse is important to disseminate to adolescents both formally and informally. The provision of these materials should be provided by both parents and schools since early education. The results of the study stated that starting education on reproductive health in schools did not increase early sexual behavior but instead had an impact on delaying early sex activities (Johariyah & Mariati, 2018).

Reproductive health problems can be identified due to several causes, including risky behavior, lack of access to health services, lack of access to correct and accountable information, access to unfiltered information, sexual violence and pregnancy and childbirth at a young age (Puspasari et al, 2017).). Providing access to the right information is one of the keys to the success of reproductive health education. One of the government's efforts to provide this information is the Youth Care Health Service Program (PKPR). This program is run by the Puskesmas in collaboration with schools in its area. However, the pandemic conditions made some activities unable to be carried out optimally.

The group of teenagers as Generation Z, namely the generation experiencing an increasingly rapid technological transition. These advances make it easier to access information through the internet. However, this is not balanced with adequate digital literacy capabilities (Levani, Hakam, & Utama, 2020). The Nation Children's Fund (NICEF) together with the Ministry of Communication and Information, The Berkman Center for Internet and Society, and Harvard University stated that there are at least 30 million teenagers in Indonesia who access the internet regularly. This provides an opportunity to develop digital-based educational and information media to get closer to the world that teenagers love. From research on online counseling, it is known some facts that through online counseling adolescents become more open to counselors because they do not have to reveal their real identities, there are differences in the use of language by counselors to clients with severe and mild cases, emotional expressions or expressions cannot be captured perfectly, and the emergence of obstacles caused by delays in providing feedback and a lack of understanding of the message conveyed (Prasetya, 2017). The physical distancing and PSBB policies issued by the government by shifting the direct learning process to online have increased access to internet use for teenagers, so

this has become one of the researchers' goals to analyze the development of SHARING AJA (Aware of the Reproductive Health of young people) media as an online educational media for promotion. reproduction health.

The purpose of this study was to analyze the use of SHARING AJA (Aware of the Reproductive Health of a Teenager) website as an online educational media for the promotion of reproductive health. The benefit of this research is the use of the website as an alternative media for health promotion in adolescents.

METHOD

Participant characteristics and research design

The research design used in this study was Quasy experimental with a one group design approach (pre-posttest). The group received an intervention for 4 weeks in the form of educational media and website-based reproductive health consultation, namely SHARING AJA (Aware of the Reproductive Health of a Teenager), which contains material in the form of narratives and videos about adolescent reproductive health. The sampling criteria are respondents who have the following inclusion criteria: unmarried, have internet access via a smartphone or laptop and are willing to be research respondents. While the exclusion criteria were not participating in data collection during the duration of the study.

Population and sample

The research was conducted in September-November 2021 at SMKN 1 Malang. The population are 606 students. The sample in this study was 26 student selected by consecutive sampling. Groups of students were given informed consent to participate in the research and were collected in one WhatsApp Group to facilitate communication.

Intervention and Measures

Respondents will be given time to access all health information contained in the website, namely SHARING AJA (Aware of the Reproductive Health of the Adolescent). Every week there will be a quiz given to respondents via Google Form which will be given via WhatsApp Group. The knowledge instrument used consisted of 10 questions about sexually transmitted diseases, free sex, and the legality of abortion. If the question is correct then it is worth 1 and if it is wrong it is worth 0. This questionnaire has passed the validity and reliability test with the results of the validity test all questions are valid with a value > 0.459, while the reliability value is > 0.6.

Data analysis

The characteristics of the respondents include demographic data, the history of the respondent's reproductive health, and acceptance of the use of the website, which are presented in the form of tables and narratives. Next, analyze the difference in the mean of knowledge before and after the intervention. Prior to bivariate analysis, the normality test of the data was first tested using the Kolmogorof Smirnov test. The data is said to

be normally distributed if the p value > 0.05. Furthermore, the analysis used is the paired t-test.

RESULTS AND DISCUSSION

Table 1 shows that most of the respondents were 16 years old (53.4%) and female (69.2%). The majority of parents' education were high school and work as entrepreneurs (fathers) and housewives. From the 26 respondents, who had been in a relationship were 21 respondents (80.8%). The data showed that of the 21 respondents who were in relationship, 5 respondents (33.3%) said they were dating 3 times. Respondents who had received information about reproductive health were 20 respondents (76.9%), information about free sex were 18 respondents (69.2%), and information about sexual transmitted infections (STIs) were 16 respondents (61.5%). The majority of respondents get this information from schools and media, both print and electronic.

Reproductive health is important information to be understood by adolescents because it becomes the basis for facing the transition of physiological growth and development, especially in the reproductive organs. The transition process, if not identified properly, will cause health problems, including pregnancy out of wedlock, risky sexual behavior, abortion, sexually transmitted diseases and early marriage (Herwati, 2017; Puspasari, 2017). Adolescent knowledge before accessing information on the website obtained an average of 77.69 ± 8.15 which means that their knowledge is quite good. This is because access to information about health is quite easy to obtain. Most of the respondents stated that they got health information through schools and print media. In Indonesia, the role of schools in reproductive health information is facilitated in the school curriculum which includes; intra-curriculum, extra-curriculum, and counseling guidance and included in the subject matter of Biology, Physical Health and religion. In the research, Masfiah et al (2013) stated that reproductive health material in the intra-curriculum curriculum is complete to facilitate students in understanding the concept of reproductive health and can increase students' knowledge. While the information media that is often used as a source of information by students is print/online media, in line with the research of Hakim and Kadarullah (2016) which states that the mass media, especially the internet, has a strong enough influence to influence the level of knowledge of adolescents. Teenagers are also more interested in the internet to learn about reproductive health.

The age of respondents, the majority of whom are 16 years old, are middle-aged adolescents who have experienced several physical changes in their sexual organs, including sexual maturity and readiness to perform reproductive functions. This makes this group of teenagers have a high risk of getting reproductive health problems because of their risky sexual behavior. This risky sexual behavior arises because adolescents have a great curiosity and tend to act without prior consideration. According to the Ministry of Health's Infodatin, the largest proportion of first-time dating is aged 15-17 years according to the 2012 basic health survey (Kemenkes RI, 2015). Respondents in this study also revealed that most of them had been in a relationship. Health information regarding reproduction is important to be given to reduce the risk of sexual behavior caused by unhealthy courtship behavior.

Table 1. Characteristics of Respondents (n=26)

Characteristics of Respondents	n	%
Age (year)		
15	11	42.3
16	14	53.9
17	1	3.8
Gender		
Male	8	30.8
Female	18	69.2
Number of siblings		
0	1	3.8
1-3	22	84.6
>3	3	11.5
Father's education		
Elementary School	6	23.1
Junior High School	8	30.8
Senior High School	9	34.6
College	3	11.5
Mothers' education		
Elementary School	6	23.1
Junior High School	7	26.9
Senior High School	12	46.2
College	1	3.8
Father's Job		
Employee	7	26.9
Entrepreneur	10	38.5
Labor	6	23.1
No	3	11.5
Mothers' Job		
Employee	1	3.8
Entrepreneur	1	3.8
Labor	3	22.5
No	21	80.9
Ever been in relationship		
Yes	21	80.8
No	5	19.2
How many in relationship		
Once	5	23.8
Twice	9	42.9
Three times	7	33.3
Have you ever received information about reproductive health		
Yes	20	76.9
No	6	23.1
Sources of information on reproductive health		
School	19	47.5
Media (print, electronics)	13	32.5
Health worker	4	10
Friends	2	5
Parents	2	5
Ever get information about free sex		
Yes	18	69.2
No	8	30.8
Source of information about free sex		
School	14	33.7
Media (print, electronics)	15	35.7
Health worker	5	12
Friends	4	9.5
Parents	4	9.5
Ever received information about Sexually Transmitted Infections (STIs)		
Yes	16	61.5
No	10	38.5
Sources of information about Sexually Transmitted Infections (STIs)		
School	13	37.1
Media (print, electronics)	11	31.5
Health worker	3	8.6
Friends	4	11.4
Parents	4	11.4

Reproductive health information obtained by respondents was only a small part, namely 2 people who said they got it from their parents, this illustrates that the role of parents is very minimal in providing information about reproductive health. Adolescents whose parents are less or not involved in reproductive health information are twice as likely to have poor knowledge compared to adolescents whose parents play an active role in reproductive health (Dieningsih & Hakim, 2020). Social media that teenagers are interested in accessing information often does not have an information buffer, so there is a risk of causing inaccurate reception of the information. Parents have an important role in guiding teenagers to get through the phase of sexual maturity well

Table 2. Score of Knowledge and Attitudes about Reproductive Health (n=26)

Knowledge and Attitude Score	Mean ± sd	P-value
Knowledge		
Pretest	77,69 ± 8,15	0,001*
Posttest	84,23 ± 6,43	
Attitude		
Pretest	24,49 ± 3,59	0,398
Posttest	25,04 ± 3,22	

Based on Table 2, it was found that there was an increase in the average score of knowledge and attitudes that were not so different in data collection before and after the intervention was given. Based on the analysis of the mean test, there is a significant difference in the knowledge of the respondents with a p-value of 0.001.

The SHARING AJA website has information on reproductive health which includes adolescent sexual changes, sexually transmitted diseases, free sex, legality of abortion, and early marriage. The level of students' knowledge after accessing the information is 84.23 ± 6.43. This value has increased from the value before accessing the information. This illustrates that the role of providing

information in the form of a website has an impact on increasing student knowledge. Teenagers prefer to get health education programs on reproductive health through digital media compared to traditional methods because they are more attractive and innovative, maintain privacy, accurate information, wider reach, easy access, affordable costs, active, practical and in accordance with the needs of today's youth (Alhassan et al, 2019).

The use of multimedia-based internet media has now developed to adapt to the interests and trends of adolescent growth and development. The development of a smartphone-based health promotion media system also adapts to the development of android users in Indonesia, which currently ranks fifth on the list of smartphone users in the world (Dusra, 2017). Meanwhile, according to the Nation Children's Fund (NICEF) together with the Ministry of Communication and Information, The Berkman Center for Internet and Society, and Harvard University stated that there are at least 30 million teenagers in Indonesia who access the internet regularly. This provides an opportunity to develop digital-based educational and information media to get closer to the world that teenagers love (Prasetya, 2017).

Research on the use of mass media in the health education process reveals that mass media such as the internet are used as a source of information that is widely accessed by adolescents. The ease of accessing technology and information today, including by students or teenagers, often has a negative impact on teenagers who accidentally get information from websites when surfing or receiving emails containing inappropriate or pornographic content. If teenagers don't know or can't filter information properly, it is feared that the content will have a negative impact on adolescent behavior. The results showed that there was a significant influence between watching pornographic films/videos on the internet and deviant behavior in adolescents (Primavera, 2014). This encourages innovation in the development of health education, especially by health workers, to be able to provide media that is able to attract interest but is also safe for teenagers.

Table 3. Usage Satisfaction of SHARING AJA Website

No	Criteria	Mean ± sd	Interpretation mean
1	I like to use the AJA SHARING website to learn about reproductive health during the Covid-19 Pandemic	3,69 ± 1,08	Neutral - Agree
2	The AJA SHARING website provides easy-to-understand information about reproductive health during the Covid-19 pandemic	4,19 ± 0,89	Agree - strongly agree
3	I prefer to learn about reproductive health through videos rather than through posters/images from the SHARING AJA website	3,42 ± 1,27	Neutral - Agree
4	The AJA SHARING website allows me to learn about reproductive health whenever and wherever I am	4,27 ± 0,92	Setuju- strongly agree
5	The AJA SHARING website facilitates the information I need	3,88 ± 0,86	Neutral - Agree
6	I intend to use the AJA SHARING website for some time to come	3,62 ± 1,02	Neutral - Agree
7	AJA SHARING website is easy to use	4,19 ± 0,94	Agree - strongly agree
8	I use the AJA SHARING website because it's fun	3,88 ± 0,99	Neutral - Agree
9	I am open to using new technologies such as the AJA SHARING website	4,04 ± 1,07	Agree - strongly agree
10	I am able to identify problems related to reproductive health by using the AJA SHARING website	4,04 ± 0,96	Agree - strongly agree
11	I believe that using the AJA SHARING website will improve my ability to make decisions when there is a reproductive health problem for me	4,15 ± 0,78	Agree - strongly agree

Reproductive health problems can be identified due to several causes including risky behavior, lack of access to health services, lack of access to correct and accountable

information, access to unfiltered information, sexual violence and pregnancy and childbirth at a young age (Puspasari, 2017). Providing access to the right information is one of the

keys to the success of reproductive health education. In addition to facilitating youth in accessing information easily via the internet, the SHARING AJA website, which was pioneered by health workers, guarantees that the information sent to students is a valid source. Students can also ask questions through the consultation menu provided to minimize misunderstandings in receiving information. Lack of information from the mass media affects adolescent knowledge and can be one of the factors causing behavioral deviations if the information processing is not appropriate (Ardhiyanti, 2021).

Based on table 3, it is found that the majority of respondents are satisfied after using the website. Respondents' satisfaction with the respondent's website is highest in terms of the ease with which they can learn about reproductive health anytime and anywhere using the SHARING AJA website with an average value of 4.27 ± 0.92 . While the lowest satisfaction score is on the point of intention to use the AJA SHARING website for some time in the future with a value of 3.62 ± 1.02 .

The level of satisfaction of users of the SHARING AJA website was found that the majority were good with the highest respondent's satisfaction with the respondent's website found in the ease of learning about reproductive health anytime and anywhere using the SHARING AJA website with an average value of 4.27 ± 0.92 . While the lowest satisfaction score is on the point of intention to use the AJA SHARING website for some time in the future with a value of 3.62 ± 1.02 .

The choice of a website design that also has a smartphone-friendly display provides the advantage of being easily accessible by students whenever they want to read. Smartphones have also now become a must-have for teenagers in accordance with trends so as to provide convenience in opening websites.

Health promotion activity is a process to encourage a person to increase control to improve their health. The purpose of health promotion is to empower people so that people are concerned about behavior patterns and lifestyles that affect their health.

The attractive appearance and audio-visual media displayed encourage students to understand more about the material. The concept of using audiovisual media in the Health Education process is one strategy to increase meaning in delivering messages so that the understanding obtained is better (Firdaus et al, 2016). In addition, audiovisual media can improve learning outcomes because it involves imagination and an attractive appearance makes the motivation to observe higher (Primavera, 2014). Messages conveyed through video are also better at explaining a process, overcoming the limitations of space and time, more realistic, can be repeated and give a deeper impression. This makes the information obtained can stay longer in the memory of students.

CONCLUSIONS AND SUGGESTIONS

This research can be concluded that increasing in the mean score of knowledge, nevertheless attitudes increased not significantly before and after the intervention was given. The suggestions submitted by researchers include increasing collaboration with schools to integrate the Health Education system with SHARING AJA to be applied in the curriculum or youth health program at schools, as well as increasing the development of the SHARING AJA website as a means of

consultation and referral to health problems. reproduction for adolescents by collaborating with the Puskesmas.

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ETHICAL CONSIDERATIONS

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Conflict of Interest Statement

There is no conflict of interest

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