

Short movie of adolescent reproductive health based on friendly of local wisdom for junior high school

Tantut Susanto,^{1,*} Kholid Rosyidi Muhammad Nur,¹ and Soekma Yeni Astuti²

¹Department of Community, Family, and Geriatric Nursing, Faculty of Nursing, Universitas Jember, Jember, Indonesia

²Department of Television and Films Studies, Faculty of Humanities, Universitas Jember, Jember, Indonesia

SUBMITTED: 23 August 2019

REVISED: 9 November 2019

ACCEPTED: 16 December 2019

KEYWORDS

Adolescent reproductive health
Short film creation
Local wisdom-friendly content
School health program

ABSTRACT The lack of information and in-depth knowledge about adolescent reproductive health (ARH) has a negative impact on junior high school (JHS) students during puberty that can develop into unhealthy reproductive behaviors, such as risky sexual behavior in dating and consumption of pornography through online media. Meanwhile, there is a lack of facilities and infrastructure to accommodate the interests and talents of students that are friendly with local wisdom. Accordingly, a partnership program is needed between schools and universities to improve student creativity by coaching ARH through the empowerment of the school environment. The creation of the short movie program "Healthy ARH" with local wisdom-friendly content was conducted for six months at JHS 2 and JHS 3 Tamanan, Bondowoso. A total of 36 students, 34 parents, and six teachers participated in this program. The series of activities consisted of community school consultations, training to make a short film, education and training for ARH, and monitoring and evaluation of the program. Program assessments for students were done through quantitative measurements using Chi-squared tests for analyses of the differences in knowledge, attitudes, and behavior concerning ARH, as well as knowledge of HIV at the beginning of month 1, month 3, and month 6, whereas the qualitative evaluation was done through content analysis of focus group discussions to improve the program. Among 36 students who took part in this program, there were significant differences in ARH understanding before and after participating in the creation of the short film "Healthy ARH" based on local wisdom-friendly content, in terms of knowledge ($X^2= 33.6$; $p<0.001$), attitudes ($X^2= 16.2$; $p=0.001$), behavior ($X^2= 24.3$; $p<0.001$), and knowledge of HIV ($X^2= 11.9$; $p=0.008$). We concluded the short film "Healthy ARH" based on local wisdom-friendly content can improve the knowledge, attitudes, and behavior concerning ARH, as well as students' HIV knowledge.

© The Journal 2020. This article is distributed under a [Creative Commons Attribution-ShareAlike 4.0 International license](https://creativecommons.org/licenses/by-sa/4.0/).

1. Introduction

Adolescence is a critical time for a person's growth and development when teenagers sometimes engage in risky sexual behavior, especially in terms of adolescent reproductive health (ARH).¹ During this period, adolescents may begin consuming pornography, engage in risky dating behavior, develop a sexual orientation disorder (LGBT), and become pregnant outside marriage.²⁻⁴ Basic Health Research of Indonesia (*Riskesdas*) in 2010 found indications

of pre-marital sexual behavior in 5% of adolescents aged 10-24 years.⁵ Meanwhile, the prevalence of the actual reproductive behavior of adolescents in the Jember Regency is 50.6%,¹ negative response during puberty in 39.0%, and immaturity during adolescent development in 20.3%.⁶ This situation relates to the lack of ARH education both in families and schools because the discussion of ARH problems is considered taboo in most families and communities and there is no in-depth knowledge of reproduction problems in adolescents.⁷ This challenging condition shows the magnitude of the ARH problem among adolescents who need better role models from their family, community, and school.

*Correspondence: tantut_s.psik@unej.ac.id
Department of Community, Family, and Geriatric Nursing,
Faculty of Nursing, Universitas Jember, Jl Kalimantan 37 Jember,
Jawa Timur. Telp/Fax. (0331) 323450.

On the other hand, much of an adolescent's time is spent in school. Accordingly, schools are the ideal setting for providing health education, especially concerning ARH problems. ARH education programs for students are more effective with peer approaches through the provision of information and peer counseling.⁸ For example, the Community Partnership Program (CPR) which is based in schools can be used as partners for empowering students to improve their knowledge, attitudes, and behaviors concerning ARH. This program is essential for shaping adolescents' resilience in reproductive health issues because, in the future, many will form a family based on local wisdom.

CPR in Bondowoso Regency is focused in the Junior High School (JHS) 2 and JHS 3 Tamanan because the rural areas are where knowledge of ARH is still low due to ignorance, unwillingness to learn about ARH, and the inability of students in schools to respond and adapt to changes during puberty. This situation may have an impact on risky sexual behavior, unwanted pregnancy, and early marriage, which could cause reproductive problems and negatively affect the formation of family generations in the future.

The analysis of the situation in the location of research showed that the teachers provided ARH education through religious and biological subjects according to the school curriculum guidelines. Meanwhile, the students still were lacking in understanding of information and knowledge related to ARH problems, because students claimed it is challenging to understand biology textbook explanations about ARH based on their experience of physical changes during puberty (menstruation or wet dreams). As a result, many students said they often accessed ARH information from social media and online media or shared their experiences with their peers. This situation allows the information obtained by students to be less relevant to what is really needed by students. Furthermore, schools and students have required ARH education media, which is suitable for the needs of JHS students regarding their religious, social, and cultural norms in a local wisdom-friendly context during puberty.

During their development period, JHS students

usually experience a developmental period of fine motor skills related to creativity or art. Student creativity needs to be well facilitated in realizing other positive skills such as communication during their development.⁹ One of the activities for supporting students' creativity is through making ARH short films based on a local wisdom-friendly approach.¹⁰ ARH education materials can be packaged in a short film that is local wisdom-friendly. As a result, it can facilitate both teachers and students to learn more about ARH. Using ARH short films based on local wisdom-friendly content, students' life skills will be healthier, and their creativity will be accommodated adequately in the activities of making the ARH short films.^{11,12}

Furthermore, there is a need for CPR to engage JHS students through the making of an ARH short film that is friendly to local wisdom. Accordingly, this CPR aimed to create a short film about ARH based on local wisdom-friendly content for JHS students, to improve the access and quality of ARH education. This CPR was created by, managed by, and made for students including the creation of the short films for other students to obtain interesting facts and contact information regarding counseling services about ARH. Implementing the CPR through coaching and empowering JHS students to create the ARH short film about appropriate ARH behavior aims at realizing healthy family planning in the future. Furthermore, the aim of community engagement is to make a short film "Healthy ARH" that is friendly to local wisdom in order to improve the students' life skills concerning ARH.

2. Method

2.1 Design

This CPR program aimed to stimulate the creativity of JHS students by making a short film about ARH that is friendly to local wisdom as a promotional media for ARH, which is a program of independent care activities created by, managed by, and made for students. The CPR program for ARH counseling services emphasizes the activities of each member who can share issues related to the fulfillment of ARH needs during adolescents' growth and development and help overcome any challenges and difficulties

through the creation of a short film. The short film about ARH is used as an education media that concerns the students' knowledge, attitudes, the behavior about ARH, and knowledge of HIV.

2.2 Procedures

The creative activities of students in making the short film "Healthy ARH" friendly to local wisdom during this PCR were done through several phases which included:

a. Community school meetings

The school community meetings were attended by teachers, students, and parents' representatives. In this forum, the ARH problems were identified, both from the perception of understanding about ARH and the implementation of the ARH health education. Then, supporting factors and constraints in the implementation of the ARH, both integrated into the curriculum of religious and biological lessons, were identified from teachers, students, and students' parents. The forum also identified students' extracurricular activities in the arts, especially acting classes, which involve watching and discussing films. Today's students prefer the digital era and self-actualization through pictures with interesting captions or engaging movies. Therefore, this situation provided the potential opportunity for planning to make a short film about ARH that is friendly to local wisdom. In this activity, parents were also asked to complete a self-administered questionnaire about the structure and function of their family in the provision of ARH education in the family setting using a standardized instrument¹³, where the measuring instrument consisted of 26 questions with a Likert scale (disagree = 1; strongly agree = 4), in which the higher the score indicates the better the role of parents in ARH education in the family.

b. Training program to make a short film about ARH

JHS students were provided with appropriate material about ARH. They were helped to identify what ARH material can be mastered based on local socio-cultural values by a CPR program team member from the Faculty of Nursing, University of Jember. The content of the material was discussed

between the proposing team with teachers, parents, and students. The material grid used in this short film was taken from a previous study of a community-based friendly clinic.⁸ Then, a short screenplay script was made, followed by a role-playing exercise, and practice in making a short film video. The duration of the training was adjusted to the ARH material provided and which was adopted into a short film lasting 5-10 minutes on each topic of the ARH discussion. The short film making training framework is described in Table 1.

c. Presentation of the short film concerning ARH

After the short film was completed it was shown to students in classes on biology and religion subjects to increase students' knowledge, attitudes, and behaviors concerning ARH as well as knowledge of HIV. In-class measurements were done using the assessment form of the Adolescent Reproductive Health Clinic.⁸ In this stage of the CPR program activity, students' knowledge, attitudes, and behaviors concerning ARH and the creativity of ARH's short film art were evaluated by other students through youth corner forums, as documented in the published results of the research conducted by the proposing team.¹⁴

d. Program supervision and evaluation

Quantitative ARH assessments of students were measured using standard measurement tools from previous research on the Adolescent Reproductive Health Clinic,^{1,8} namely in month 1, month 2, month 3, and month 4. Before implementing ARH education through short films (month 1), students were measured in terms of knowledge of ARH which consisted of 8 questions (yes = 2; no = 1). The results of measuring knowledge of ARH were categorized into two groups using the mean value (high vs. low). Attitudes towards ARH were measured using 12 questions (yes = 2; no = 1). The results of measuring the attitudes toward ARH were categorized into two groups using the mean value (positive vs. negative). Behavior of ARH was measured using 9 questions (yes = 2; no = 1). The results of measuring behavior of ARH were categorized into two groups using the mean value (risk vs. no risk). Finally, knowledge of HIV consisted of 12 questions (yes = 2; no = 1).

The results of measuring knowledge of HIV were categorized into two groups using the mean (high vs. low). All of the instruments used in this study were previously validated and considered reliable from previous studies conducted by the authors.^{1,8}

After the implementation of the ARH short film screening that was friendly to local wisdom at the end of the program, an evaluation of the activities was done through the school community consultation. This activity was attended by students, teachers, and parents in assessing the students' progress in the ARH programs which had been implemented by the school for the past 4 months independently through focus group discussions (FGD). This CPR program was approved by Ethical Review Board of the Faculty of Dentistry, Universitas Jember with No. 426/UN25.8/KEPK/DL/2019.

2.3 Quantitative and qualitative analysis

Quantitative data were presented in frequency for continuous data, while the mean and standard deviation were used for presentation of numerical data. To compare differences of knowledge, attitudes, and behavior of ARH, as well as knowledge of HIV for students during months 1, 2, 3, and 4 after short film education and training activities, analyses with Chi-squared tests were performed with a significance level set at $p < 0.05$.

The results of the assessments were presented in quantitative data related to the characteristics of the participants in this program. In addition, the

engagement of school community participation during the community service activities was presented through a qualitative analysis of the FGD with the CPR members' feedback about making creative short films that are friendly to local wisdom.

Qualitative data analysis involved thematic analysis of each participant's statement during the guided discussion and the results of the open questionnaire from the participant. Qualitative data from the school community came from open questionnaires related to local wisdom-friendly short film screening activities and were used as input in the continuation of the program.

3. Result

3.1 Characteristics of student and parents

Table 2 shows that the majority of students' ages are 14 years (50%). The majority of students get ARH information from their teachers (44.4%) and only occasionally share information about ARH with parents (58.3%). ARH education has been done in the schools (83.3%), although according to students, there needs to be additional content about ARH in schools (66.7%). There were two students identified who had smoked and one student who had consumed alcohol. Besides that, the survey of the 36 students also determined the level of ARH personal development in which most of the boys had wet dreams (72.2%) and almost all of the girls had menstruated (88.9%), and many of the teenagers were not yet dating (61.1%).

Table 1. Material and schedule for training to make the short film

No	Items	Description of activities
1	Explaining a short film or movie	Students were explained what cinema is and how it differs from images, how filmmaking is done, and shown the media facilities and infrastructure in filmmaking.
2	Duties and parts in making films	Students were explained the assignment of camera persons, film director, film lighting, and supporting crews in filmmaking. Students were allowed to hold all the equipment and try the equipment used in making films.
3	Making a movie script	Students were allowed to make a short film script with the topic of ARH. There were three topics created, namely; menstruation in adolescent girls, the dangers of using gadgets, and early marriage in adolescents.
4	Role training or acting class	Students were taught to practice acting and performing. Students learned about how to act in front of the camera with the given role.
5	Filming filmmaking	Students and teachers filmed short films based on the film scripts that were made together between students and teachers with three film themes, namely: menstruation in young women, the dangers of using gadgets, and early marriage for adolescents.

Table 2. Characteristics of student who attend ARH training (n= 36)

Variable	n (%)
Age (year)	
13 year	8 (22.2)
14 year	18 (50.0)
15 year	10 (27.8)
Gender	
Boys	18 (50.0)
Girls	18 (50.0)
Exercise habit	
Yes	30 (83.3)
No	6 (16.7)
Sources information of ARH	
Teacher	16 (44.4)
Mother	3 (8.3)
Health providers	14 (38.9)
Book or magazine	3 (8.3)
Easy to share information about ARH with parents	
Always	5 (13.9)
Occasionally	21 (58.3)
Never	10 (27.8)
Health education about ARH in schools	
Yes	32 (88.9)
No	4 (11.1)
Urgency to add material education of ARH in schools	
Too much	7 (19.4)
Less than needed	5 (13.9)
Need to add	24 (66.7)
Active in religious activity	
Always	31 (86.1)
Occasionally	2 (5.6)
Never	3 (8.3)
Regular eating habit	
Yes	26 (72.2)
No	10 (27.8)
Smoking habit	
Yes	2 (5.6)
No	34 (94.4)
Alcohol consumption	
Yes	1 (2.8)
No	35 (97.2)
Spermarche (n= 18)	
Yes	13 (72.2)
No	5 (27.8)
Menarche (n= 18)	
Yes	16 (88.9)
No	2 (11.1)
Dating (n= 36)	
Yes	14 (38.9)
No	22 (61.1)

ARH: adolescent reproductive health

Table 3 shows that among 34 parents, the average age of parents was 39.44 ± 5.37 years with the majority mothers (73.5%). Most parents of children's education were elementary school graduates (61.8%), and the majority ethnic background was Madura (67.6%). The work of the majority of parents was housewives (38.3%), and the average family income in a month was 320,588.24 IDR.

3.2 Family structure and family function for providing ARH in family context

Table 4 shows that the implementation of ARH education in the family was low in the aspects of family power, family role, family values and norms, family affective function, family healthcare function, family reproductive function, and family economic function. However, aspects of family communication and family socialization functions are sufficient. Therefore, the overall implementation of family structure and function for ARH education in the family context was still lacking.

3.3 Knowledge, attitudes, and knowledge of ARH as well as knowledge of HIV

Students who attended ARH education and training after seeing this short film were assessed to measure the success of the education and training program. Measurements were taken during four assessments, namely: before education and training (month 1), 4 weeks after school and training (month 2), 8 weeks after education and training (month 3), and 12 weeks after education and training (month 4) at the end of the program implementation. The following data in Table 5 present improvements in the knowledge, attitudes, and behavior of the ARH and knowledge of HIV among students.

Table 5 shows that there were a significantly differences in ARH among student before and after attending program creativity a short film "healthy ARH" friendly to local wisdom, in particular knowledge of ARH ($X^2= 33.6$; $p<0.001$), attitudes toward ARH ($X^2= 16.2$; $p=0.001$), behavior of ARH ($X^2= 24.3$; $p<0.001$), and knowledge of HIV ($X^2= 11.9$; $p=0.008$).

Figure 1 shows that there was an increase in the number of students who have knowledge, attitudes,

Table 3. Characteristics of parents (n= 34)

Variable	n (%)
Age (year)	
Mean \pm SD	39.44 \pm 5.37
Gender	
Men	9 (26.5)
Women	25 (73.5)
Educational background	
Not attended school	1 (2.9)
Elementary school	21 (61.8)
Junior high school	7 (20.6)
Senior high school	5 (14.7)
Occupations	
Farmers	12 (35.3)
Housewives	13 (38.3)
Seller	4 (11.8)
Driver	1 (2.9)
Entrepreneur	3 (8.8)
Teacher	1 (2.9)
Salary per month (IDR)	
Mean \pm SD	320,588.24 \pm 89,143.86
Ethnic	
Javanese	9 (26.5)
Madurese	23 (67.6)
Osing	1 (2.9)
Balinese	1 (2.9)

and behaviors of ARH and a good understanding of HIV during the four months of the program. At the beginning of the program, 80.6% of students were knowledgeable, although, at the end of the program, 83.3% of students were highly knowledgeable about ARH. At the beginning of the program, 52.8% of students had positive attitudes of ARH, and at the end of the program, it increased to 80.6%. Nearly 50% of students engaged in risky behaviors related to ARH at the beginning of the program, while at the end of the program, students all behaved without risk pertaining to the practice of ARH. Additionally, the majority (58.8%) of students were initially with high knowledge associated with HIV and at the end of the program this increased to 88.9%.

3.4 Results of focus group discussions during community school meetings

a. Before implementation program

The results of theme identification with open-ended questions and in focus group discussions from

the school community consultations before the implementation of the CPR service learning program about ARH obtained the following data.

Theme 1. ARH education program in schools

The smoking habit in the school environment has been banned by the teachers, and the teachers at the Tamanan Schools said that some students actually smoked or used to smoke when going to school, and when the teacher gave a reprimand to the students they answered that at home their parents allowed them. The cooperation between parents and teacher training was not good enough to forbid children to smoke, even though the teacher asked for help from the parents' cooperation. Some students were also found to often help their parents at their work, and the teachers could not prohibit smoking because they thought it was the right of the parents.

Theme 2. Early marriage among adolescents

In the case of early marriage in the school environment, usually 8th or 9th grade students have already been married because of the beliefs and traditions of the parents of students in the neighborhood since when a young girl rejects the marriage proposal the first time, it is thought to lead to bad events, so even though they are still junior high school students when there are already people who come to propose marriage to the parents then the children must accept the proposal. For relationships between the opposite sex in the school environment, the teacher stated that there were already some children who had started to date and were allowed to sit together alone in a place either in a crowded or quiet atmosphere in the classroom, but there were still limits.

Theme 3. Use of gadgets on devices and alcohol consumption

The use of devices for students in schools has been prohibited by teachers except for students with reasons due to examinations and other learning needs. The teachers forbid students from carrying gadgets, and they also often conduct raids to discipline students. Also, if some students have these devices, they will be confiscated and the contents of these gadgets checked. If a student is found to have

Table 4. Family structure and family function for providing ARH in family context (n= 34)

Variable	Mean±SD	P ₂₅	Md	P ₇₅	Interpretation
Family structure					
Family communication	9,00±3.06	6.00	9.00	11,00	Enough
Family power	7,59±2.50	6.00	8.00	9.25	Low
Family role	5,91±1.83	4.00	6.00	8,00	Low
Family value and norms	6,79±1.47	6.00	7.00	8,00	Low
Total scores	29,29±7.08	24.50	31.00	33.75	Low
Family functions					
Family affective	10.62±2.07	9,00	12,00	12,00	Low
Family socialization	7.06±1.69	6,00	7,00	7.25	Enough
Family healthcare	8.79±2.11	7,00	9,00	10.25	Low
Family reproduction	9.09±2.51	7.00	10,00	11.25	Low
Family economic	10.50±2.44	8,00	12,00	12,00	Low
Total scores	46.06±8.46	40.50	48.50	52.25	Low
Total score family structure and function	75.35±13.83	66,00	78,00	84.25	Low

Table 5. The differences of knowledge, attitude, behavior of ARH, and knowledge of HIV among students (n= 36)

Variable	Month 1	Month 2	Month 3	Month 4	X ² (p-value)
	n (%)	n (%)	n (%)	n (%)	
Knowledge of ARH					
High	7 (19.4)	22 (61.1)	25 (69.4)	30 (83.3)	33,6 (<0.001)
Low	29 (80.6)	14 (38.9)	11 (30.6)	6 (16.7)	
Attitude toward ARH					
Positive	19 (52.8)	13 (36.1)	24 (66.7)	29 (80.6)	16.2 (0.001)
Negative	17 (47.2)	23 (63.9)	12 (33.3)	7 (19.4)	
Behavior of ARH					
Risk	18 (50.0)	10 (27.8)	8 (22.2)	0	24.3 (<0.001)
No risk	18 (50.0)	26 (72.2)	28 (77.8)	36 (100.0)	
Knowledge of HIV					
High	21 (58.3)	28 (77.8)	31 (86.1)	32 (88.9)	11.9 (0.008)
Low	15 (41.7)	8 (22.2)	5 (13.9)	4 (11.1)	

ARH: adolescent reproductive health; HIV: human immunodeficiency virus

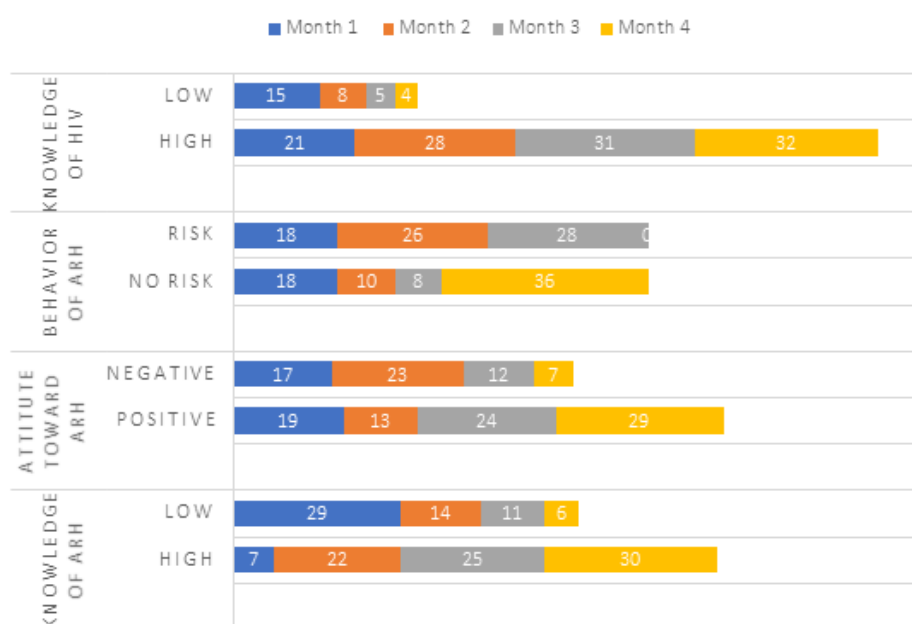


Figure 1. The differences of knowledge, attitude, behavior of ARH, and knowledge of HIV among students (n= 36)

a video or image that is not good on his cellphone then the teacher will call the parents of the students involved. The teachers explained that the results of the raid could prevent students from having pornographic content on their cellphones.

Experiments with the consumption of liquor are also found in the school environment. The teacher said that some students had tried to mix some drinks with alcohol. The teacher also said that this was due to the influence of teenagers outside of school who did not receive an education. The teachers also stated that sometimes there are students who do not sleep at their homes but stay at a friend's house without the knowledge of their parents.

Experiments on the consumption of liquor are also found in the school environment. The teacher said that some students tried to mix some drinks to be combined with alcohol. The teacher also said that this was due to the influence of teenagers outside of school who did not receive an education. The teacher also states that sometimes there are students who do not sleep in their homes; they stay at a friend's house without the knowledge of their parents.

b. During the implementation of the ARH program

The results of theme identification with open-ended questions and in focus group discussions from the school community consultations during the implementation of the program obtained the following data.

Theme 4. ARH education method

Some teachers are sometimes still confused about how to convey information related to reproductive health in detail because they are afraid that their students are not ready to accept it even though the teacher also knows sometimes some students already are exposed to the information through social media or gadgets. The teachers also said that the role of parents is sometimes lacking because some parents think there is no need to teach reproductive health to children. Some parents believe the students will know more by themselves when it is time.

The teachers also said that if students experience technology shock and the role of parents is lacking because there is no limitation in the use of technology and gadgets, and this may be due to

the existence of some parents who are less familiar with the technology. The teachers suggested the content in the film can demonstrate how to manage the use of gadgets and the dangers of smoking. The films raised some important issues related to menstruation, the risks of using devices for teens and about early marriage.

Theme 5. Contents of ARH education

The description of ARH material in the schools was given through biology lessons to 9th-grade students in the chapter on the reproductive system, and some students wanted to ask about growth and development, changes in their reproductive organs, and problems with reproductive organs such as vaginal discharge. Besides that, education related to how to cleanse themselves for girls and boys is also taught at school, and the teacher also provides training regarding how to maintain the cleanliness of the body for female students who menstruate such as the number of times a pad should be changed, the limits that must be made by both male and female students when they are puberty, with explanations of the cycle and duration of menstruation. At school, some 7th-grade students are married but are limited in their interactions. At school, teachers have given lessons on reproductive health both in biology and physical education, but sometimes some students still consider it to be a taboo subject.

c. After implementation of ARH program

The results of theme identification with open-ended questions and in focus group discussions from the school community consultations after the implementation of the program obtained the following data.

Theme 6. To confidently teach ARH

Impressions and messages from students conveyed that from this program many gained new knowledge about ARH. From the quizzes given related to physical and psychological changes both for young men and women they had begun to understand and know the changes that usually occur.

Impressions and messages from students indicated that they feel this program not only increased their knowledge related to reproductive

health but with the excitement of the filming event, they can better enjoy the course of this activity. From the quizzes given about adolescent reproductive health, students had begun to identify changes both physically and psychologically at puberty.

4. Discussion

The CPR community service program in the form of a youthful "reproductive health" creative short film program with local wisdom went according to plan. The school community could engage in joint partnership activities in the promotion of ARH, where the knowledge, attitudes, and behavior of ARH and the knowledge of students' HIV increased after the intervention of the ARH short film program that is friendly to local wisdom. The results of this activity are the same as the previous activities in which youth corner activities can improve students' ARH life skills¹⁴, and community-based youth health clinics can improve knowledge, attitudes, and skills of ARH.⁸ These results indicate that community empowerment activities with local environmental resources can increase the awareness, willingness, and ability of the school community to behave in a healthy manner concerning ARH.

Knowledge, attitudes, and behavior of ARH students in this partnership program are enhanced in forming adolescents who are active in reproductive health issues because, in the future, these teens will create a family.¹⁵ For this reason, there is a need for adolescent ARH guidance through partnerships between schools and health centers and BPPKB in increasing student creativity to improve adolescent life skills in ARH.¹⁶⁻¹⁹ The media for making "youthful reproductive health" short films that are friendly with local wisdom is used as an approach in the promotion of these community service activities because visualization in ARH education is better able to increase students' understanding and skills.²⁰ Student creativity is encouraged in making this short film as a medium for promoting ARH health education, which is an independent CPR program managed by and made by, and for students who are friendly with local wisdom.

The ARH short film which is friendly with local wisdom contains ARH material, including: (1) what

is adolescent reproductive health; (2) why physical changes occur when entering puberty; (3) why teenagers can menstruate and have wet dreams; (4) why adolescents often change their emotions quickly; (5) what is pregnancy; (6) what is a sexually transmitted disease; (7) what is HIV / AIDS; (8) how does LGBT occur; (9) how to maintain the cleanliness of the reproductive organs; and (10) how the juvenile life is safely accomplished during puberty.^{8,20,21} The material in this short film is played by middle school students and is harmonized with the local wisdom culture according to the local social culture.^{22,23} Therefore, students can explore the role in the film by internalizing and practicing ARH in their lives.

The CPR service program about ARH emphasizes the activities of each member who has the desire to share issues related to the fulfillment of ARH growth and development needs and the activities help them overcome challenges through creating a short film. From the qualitative analysis, teachers and students have learned ARH material and new methods to share new information. Therefore, the PCR during this time also facilitated the formation of ARH short films in the schools that were integrated with the school curriculum and the school health program, both intracellular and extracurricular.^{18,24,25} From this program, it is hoped that the formation of media for promoting ARH through school short films are integrated with school health activities as well as engaging the cooperation between school with Puskesmas and BPPKB facilitated by the University of Jember. In this PCR activity, the school as a partner participated in the implementation of the program through the provision of human resources, namely students and teachers in making the ARH short film in accordance with local wisdom. Besides that, the schools were also involved in providing support for the provision of space and time for PCR program activities.

5. Conclusion

The local wisdom-friendly "Healthy ARH" short film creativity program is able to improve the knowledge, attitudes, and behavior of the ARH, as well as the students' HIV knowledge. The short film "Healthy ARH" with local wisdom-friendly content can be

used as a medium for ARH education in schools by integrating with the school health program. In the future, the schools can be more involved in developing health promotion media for short films about ARH for school students by coordinating with the BPPKB and the local Puskesmas and building networks with NGOs concerned with adolescent issues by creating a Memorandum of Understanding (MoU) and implementing activities in the MoU. The schools can also encourage the development of students' creative interest activities by developing ARH short films that are friendly with local wisdom.

Acknowledgements

The authors want to extend their thanks for the funding resources for this program from Ministry of Research, Technology & Higher Education (RISTEK-DIKTI) for funding of the Community Engagement of PKM DRPM No. T/140/E3/RA.00/2019 which was used for the project. Also, sincere thanks go to all the friends at the Junior High School of Tamanan 2 and 3 Bondowoso, Puskesmas Tamanan, and BPKKB Kabupaten Bondowoso who participated during this project as well as Lembaga Penelitian dan Pengabdian dan Fakultas Keperawatan, Universitas Jember for approval of this project.

Conflict of interest

The authors declare that there are no conflicts of interest.

References

1. Susanto T, Rahmawati I, Wuryaningsih EW, Saito R, Syahrul S, Kimura R, et al. Prevalence of factors related to active reproductive health behavior: a cross-sectional study Indonesian adolescent. *Epidemiol. Health.* 2016; 38: 1–10.
2. Le YCL., Behnken MP, Markham CM, Temple JR. Alcohol use as a potential mediator of forced sexual intercourse and suicidality among African American, Caucasian, and Hispanic high school girls. *J. Adolesc. Health.* 2011; 49: 437–9.
3. Women's Refugee Commission, Save The Children, UNHCR, UNFPA. Adolescent sexual and reproductive health programs in humanitarian settings: An in-depth look at family planning services. 2012.
4. Leerlooijer JN, Ruiters RAC, Damayanti R, Rijdsdijk LE, Eiling E, Bos AER, et al. Psychosocial correlates of the motivation to abstain from sexual intercourse among Indonesian adolescents. *Trop. Med. Int. Health.* 2014; 19: 74–82.
5. Badan Penelitian dan Pengembangan Kesehatan. Riset Kesehatan Dasar (RISKESDAS) 2013. Laporan Nasional 2013. 2013
6. Susanto T, Saito R, Syahrul, Kimura R, Tsuda A, Tabuchi N, Sugama J. Immaturity in puberty and negative attitudes toward reproductive health among Indonesian adolescents. *Int. J. Adolesc. Med. Health.* 2016; 14: 30(3).
7. Susanto T, Kimura R, Tsuda A, Wuryaningsih EW, Rahmawati I. Persepsi remaja dalam perencanaan keluarga di daerah rural dan urban kabupaten Jember, Provinsi Jawa Timur, Indonesia. *J. Kel. Berencana.* 2016; 1: 1–12.
8. Susanto T, Rahmawati I, Wantiyah. A community-based friendly health clinic: An initiative adolescent reproductive health project in the rural and urban areas of Indonesia. *Int. J. Nurs. Sci.* 2016; 3: 371–378.
9. Batubara JRL. Adolescent development (Perkembangan Remaja). *Sari Padiatr.* 2010; 12: 21–29.
10. Susanto T, Rasni H, Susumaningrum LA. Using values of local wisdom for family healthcare of adolescents in the Indonesian context. *Sri Lanka J. Child Heal.* 2019; 48: 256–8.
11. Wilson AH, Blake BJ, Taylor GA, Hannings G. Cinemeducation: Teaching family assessment skills using full-length movies. *Public Health Nurs.* 2013; 30: 239–45.
12. Keser I, Acar G. The impact of watching movies on the communication skills of nursing students : A pilot study from Turkey. *Int. Arch. Nurs. Heal. Care* 2017; 3: 1–7.
13. Susanto T, Arisandi D, Kumakura R, Oda A, Koike M, Tsuda A, et al. Development and testing of the family structure and family functions scale for parents providing adolescent reproductive health based on the Friedman family assessment model. *J. Nurs. Meas.* 2018. 26, 1–20.
14. Susanto T, Rahmawati I, Sulistyorini L. Pojok

- remaja : Upaya peningkatan ketrampilan kesehatan reproduksi. *J. Keperawatan* 2013; 3: 246-55.
15. Susanto T, Rahmawati I, Wantiyah. Peer educator training program for enhancing knowledge on issues in the growth and development of adolescents and risk behavior problems in Indonesian context. *Front. Nurs.* 2018; 5: 185–91.
 16. Puiggrós, M. Abstracts From the 21 St Congress of the World Diversity or Disabled ” an Inclusive. 2013; 10: 302–422.
 17. WHO. The sexual and reproductive health of younger adolescents: Research issues in developing countries. *Production.* 2011; 57.
 18. Adolescent Development and Participation Unit. Working for and with Adolescents Some UNICEF examples. 2002.
 19. Kaslow NJ, Broth MR, Smith CO, Collins MH. Family-based interventions for child and adolescent disorders. *J. Marital Fam. Ther.* 2012; 38: 82–100.
 20. Susanto T, Rahmawati I, Wantiyah. Pengaruh visualization in pengaruh visualitation in participatory program (vipp) dan metode ceramah terhadap pengetahuan, sikap, dan keterampilan kesehatan reproduksi remaja di Jember. *J. Kesehat. Reproduksi* 2017; 8: 119–29.
 21. Susanto T, Sahar J, Widyatuti. Peer to peer model as strategy intervention for adolescent sexual reproductive health at Tugu, Cimanggis Sub-District, Depok, West Java of Indonesia. *J. Ners Indones.* 2015; 2: 1–12.
 22. Strunin L, Diaz-Martinez LR, Diaz-Martinez A, Heeren T, Winter M, Kuranz S, et al. Parental monitoring and family relations: Associations with drinking patterns among male and female Mexican students. *Addict. Behav.* 2015; 51: 143–51.
 23. Gautam-Adhikary SD. Myths and facts about comprehensive sex education: Research contradicts misinformation and distortions. *Advocates for Youth* 2011; 1–4.
 24. Mcdonald P. Adolescent reproductive values contested and policy in Indonesia : Inaction young Indonesians. 2013; 40: 133–146.
 25. Utomo ID, McDonald P. Adolescent reproductive health in Indonesia: contested values and policy inaction. *Stud. Fam. Plann.* 2009; 40: 133–46.