Adolescents and reproductive health: Promoting healthy habits for reproductive well-being

Sri Sumaryani¹, Heni Purwaningsih²*
¹Universitas Muhammadiyah Yogyakarta, Indonesia
²ITS PKU Muhammadiyah Surakarta, Indonesia
Email: henipurwaningsih@itspku.ac.id

Abstract. Adolescence is a critical period of human development in which physical, psychosocial, cognitive, and emotional aspects develop rapidly, especially the reproductive system. Adolescents must be prepared to face reproductive maturation, so they need some information that can solve the changing of their body. Health education about reproductive health is very important to do as an effort to increase knowledge in dealing with puberty. The reproductive health education program for adolescence in facing puberty is one solution that can be done to increase student's knowledge about reproductive health. This activity aims to increase adolescence knowledge about reproductive health system in adolescence. The community service program was completed by providing health education to 38 students in Banyuurip elementary school, Yogyakarta using games, giving materials, and conducting discussions. Activities were evaluated by using pretest and post-test scores. There was a significant difference in the participants' knowledge level before and after the reproductive health education. Previously, 52% of participants were in the less category, 42% of them was in sufficient category, and only 5% was in good category. After the reproductive health education was carried out, most of the students had good knowledge at 71%, 29% had sufficient knowledge, and no students had insufficient knowledge. In conclusion, reproductive health education is proven to be able to increase students' knowledge in dealing with puberty and care for reproductive organs.

Keywords: Early adolescent, health education, reproductive health

1 Introduction

According to the World Health Organization (WHO), a person can be called an adolescent if he is between 10 and 19 years old. There are nearly 1.2 billion adolescents worldwide. In some countries, adolescents make up as much as a quarter of the population, and the number of adolescents is expected to rise through 2050, particularly in low- and middle-income countries (LMICs) [1]. According to the data from the Central Bureau of Statistics in 2020, Indonesia's population has reached 268,074.6 million people with 45,351.3 of them are teenagers. Adolescents aged 10-14 years reach 23,057.1 million people, while the population aged 15-19 years is counted for 22,294.2 million people. The size of the teenage population will affect the social, economic, and demographic development both now and in the future.

The results of previous research stated that the main problems of adolescent reproductive health in Indonesia include the lack of information about reproductive health

* Corresponding author: henipurwaningsih@itspku.ac.id
and the problem of shifting adolescent sexual behavior. This is supported by the results of previous research which explained that almost all respondents had sufficient and moderate knowledge of adolescent reproductive health [2]. Previous research found that knowledge of reproductive health in junior high school adolescents tended to be lacking, namely around 57.58% for male adolescents and 62.85% for female adolescents [2]. According to IDHS (2020) adolescent reproductive health showed that the level of knowledge of adolescents regarding reproductive health is still low with the result that 73.46% of male and 75.6% of female adolescents aged 15-19 years in Indonesia were relatively not knowledgeable of reproductive health. Based on the results of the initial survey, it was found that the Banyuurip public elementary school was located in the working area of Dlingo II Health Center, where Dlingo II Health Center was a health center under Dlingo District, Bantul. Dlingo is one of districts in Bantul Regency area which has the highest rates of early marriage and teenage childbirth. Bantul Regency has 17 Districts. The number of early marriages and youth marriages in Dlingo, Kasihan, and Banguntapan in 2019 reached 544 or 36.7% of a total of 1,525. In 2020, it reached 459 or 32% of a total of 1,433. In 2021, it reached 372 or 32.4% of a total of 1,147. Of all early marriages in 17 districts, the number of adolescents in 2020 reached 120 or 53.3% of all the 225 adolescents in all districts.

Adolescents’ problems related to reproductive health are all rooted in lack of information, understanding, and awareness to achieve reproductive health. Knowledge is a very important domain in one's actions. So, it is very necessary to increase the knowledge of adolescents. There are many ways that can be done to increase the knowledge in adolescents, such as early education from parents and providing counseling activities, so that adolescents will better understand and be able to apply the theory obtained with the existing reality [3]. Knowledge about reproductive health can be obtained through health education, counseling, experience, reading material about reproductive health through printed media such as magazines, leaflets, and books, and education both at school and home. Most of knowledge is obtained by human through the eyes and ears. The level of knowledge that is still lacking may be due to a lack of information about reproductive health, especially about caring for and looking after the reproductive organs. Most of adolescents only get information from peers whose perceptions are not necessarily true. This lack of understanding is caused by various factors including customs, culture, religion, and lack of accurate sources. This will result in various impacts that are actually very detrimental to adolescent groups and their families [4]. In fact, many adolescents are afraid to discuss reproductive health issues with their parents because they are embarrassed or afraid of being scolded or punished. There are also many teenagers who do not know that they have reproductive system diseases but are reluctant to have them checked at a health facility.

Therefore, it is necessary to provide appropriate information about reproductive health for adolescents. The need for adolescent reproductive health education has become an issue that needs to be addressed at the national level. Reproductive health education will help adolescents to have accurate information regarding the body, and reproductive and sexual aspects accurately [5]. Therefore, the role of the education service together with the health office in providing early education on reproductive health to adolescents will be very useful to become a provision and foundation for adolescents in facing the current developments in the world. Effective reproductive health and sexual education must be appropriate to the age, culture, and context of youth's lives so that the information received can be properly understood in order to create a valid association with today's modern era. This community service activity aims to provide information to students about reproductive health with the hope that it will increase students' knowledge about reproductive health.
2 Methodology
The implementation of community service activities was carried out through 3 steps:

1. Preparation step

   - Step I
     Preparation:
     1. Survey
     2. Formation of PkM team
     3. Making proposals
     4. Coordination with teams and partners
     5. Material preparation
     6. Preparation of research instruments.

   - Step II
     Implementation:
     Education for grade 4 and 5 students at Banyuurip primary school, Dlingo, Bantul using the game method.

   - Step III
     Evaluation:
     Analyzing the level of knowledge obtained from pretest and posttest.

Fig. 1. FGD documentation.

The preparation step was carried out by identifying the problems and needs of partners through observations, interviews, and FGDs (in Figure 1) which were attended by student representatives, teacher representatives, and parents of Banyuurip primary school students. Interviews were conducted to the principal of Banyuurip primary school and the head of the primary health center.

2. Implementation

This community service program was carried out for grade 4 and 5 students of Banyuurip elementary school in the form of adolescent reproductive health education. The implementation of this activity was carried out in over 1 month. This activity started by conducting a pretest followed by education about reproductive health which was carried out using the game method in the form of opinion polls, presentation of material, and 90-
minute discussion session. The activity was ended by giving a post test. The documentation of activities can be seen in the images below.

Fig. 2. Adolescent reproductive health education activities.
Reproductive health education activities were attended by all grade 4 and 5 students at Banyuurip primary school and accompanied by their respective homeroom teachers. The community service team also involved students as facilitators during the activity. The following is the documentation of the community service team and the target community.

Fig. 3. Community service team and the target community
As a form of appreciation for the implementation of this community service program, the team also provided several medical devices that the school could use to improve student health such as tensimeters, thermometers, weight scales, height gauges, merchandise, and door prizes for students in the form of stationery. Documentation can be seen in the image below.

Fig. 4. A form of appreciation from the community service team to Banyuurip elementary school.
3 Result & Discussion

Based on the results of community service activities, data on respondents' knowledge were obtained before and after given reproductive health education.

Table 1. Characteristics of research participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>44.7%</td>
</tr>
<tr>
<td>Male</td>
<td>21</td>
<td>55.3%</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100%</td>
</tr>
<tr>
<td>Puberty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>64.2%</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>36.8%</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on the results of community service activities, it is found that the majority of respondents is male for as much as 55.3%, and 64.2% of the participants had not yet experienced puberty. Knowledge can be influenced by several factors among which are experience, level of education, facility, and confidence [1]. How adolescents deal with reproductive health problems are unique, which will affect the acceptance of information about health reproduction. Beside that, confidence factor between teenage boys and women is very different. For example, women are at risk of getting pregnant if they have casual sex. This matter makes women very confidently strong in health reproduction than men. Men usually more feel curious about information on health reproduction, while women feel more afraid and ashamed to discuss reproduction health issues. It can influence the knowledge of juvenile reproduction health in man and woman [2].

Puberty is the process of physical maturation in which an adolescent reaches sexual maturity and becomes capable of reproduction. On average, puberty typically begins between 8 and 13 in females and 9 and 14 in males [3]. The first factor influencing readiness in facing puberty in adolescents is age. The second is source of information about puberty. Sources of information can be obtained from family, peers, and also the school environment [1]. The lack of understanding of sexual behavior in adolescence is very detrimental to themselves, including their families, because during this period, adolescents experience important developments namely cognitive, emotional, social, and sexual. This lack of understanding is caused by various factors including customs, culture, religion, and lack of information from the right sources [4].

Table 2. Distribution of knowledge before and after given reproductive health education.

<table>
<thead>
<tr>
<th>Knowledge category</th>
<th>Pre-test</th>
<th>Frequency</th>
<th>%</th>
<th>Post test</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td></td>
<td>2</td>
<td>5%</td>
<td></td>
<td>27</td>
<td>71%</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>16</td>
<td>42%</td>
<td></td>
<td>11</td>
<td>29%</td>
</tr>
<tr>
<td>Deficient</td>
<td></td>
<td>20</td>
<td>52%</td>
<td></td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>38</td>
<td>100%</td>
<td></td>
<td>38</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on the table above, it is found that most of the respondents' knowledge prior to reproductive health education is in the less category (52%), followed by sufficient category (42%) and good category (5%). After the reproductive health education, the number of
students with good knowledge increases to 71%, those with sufficient knowledge are 29%, and no student has insufficient knowledge. It is proven that reproductive health education affects adolescent knowledge. This is in line with a study stating that there was an increase in the mean before and after sexual and reproductive health education is carried out by a mean pretest score of 3.43 ± SD 2.36 and a mean posttest score of 7.26 ± SD 1.79, with a mean difference of 3.83 ±SD 2.57 [6].

Adolescence is the phase of life between childhood and adulthood with the age ranging from 10 to 19 years old. This is a unique stage of human development and an important time to lay the foundations of good health. During their developmental period, adolescents need information, including comprehensive sexuality education according to their age. Adolescents have the opportunity to develop life skills and receive equitable, appropriate, and effective health care in a safe and supportive environment. Adolescents need opportunities to participate meaningfully in designing and delivering interventions to improve and maintain their health [7]. In addition, adolescence is a transitional period towards adulthood which involves physical, psychological, and social changes. The characteristic of adolescents who are still looking for identity encourages them to take actions without a careful thought so that the problems experienced by adolescents are also typical, one of which is related to sexuality or reproductive health [8]. Adolescents need to receive sufficient information on reproductive health so that they know what to do and what to avoid. By knowing about adolescent reproductive health correctly, we can avoid negative things that teenagers might experience [3].

Previous studies have shown the limitations of adolescents in obtaining information about reproductive health knowledge, especially for menarche, menstruation, and personal hygiene [9]. Limited access to adequate information about reproductive knowledge often results in perceptions of negative attitudes and misunderstandings about menarche, menstruation, and menstruation-related hygiene, and this may have a negative impact on reproductive health. Furthermore, lack of preparation and knowledge, and poor hygiene practice around them cause obstacles in their education, self-confidence, and personal development [10], [11]. In addition, the information that families commonly provide to young women is still limited because of the stigma of "taboo" or "ashamed" to talk about reproduction, which can be a limitation to obtaining correct knowledge about reproductive health [3]. Conversely, providing good information will have a positive impact on adolescents regarding changes in their reproductive system because reproductive health education should be given earlier to prepare adolescents not only physically but also psychologically [12].

This community service activity was carried out for grade 4 and grade 5 students at Banyuurip elementary school where the average age of the students was 10-11 years. According to the World Health Organization, the age of early and old adolescents (10-19 years) correlates with the ages at which puberty and menstruation begin. At this age, they need an education about reproductive health and guidance including information appropriate to their age and the cultural relevance of puberty [13]. Providing information during puberty has an important role in increasing adolescents’ knowledge. Lack of information will lead to a lack of understanding of adolescents about reproductive health and the formation of a positive attitude towards reproductive health. Provision of knowledge and learning about school-based reproductive health are needed to increase knowledge and prevent harmful actions in adolescents. Sexual and reproductive health education is very important to be given early[14].

The results of the evaluation of community service activities found that there was an increase in students' knowledge before and after given reproductive health education. The results of a previous study stated that adolescents who were given sexual and reproductive health education would be more likely to maintain personal hygiene and be able to practice
cleanliness of the reproductive organs during menstruation [15]. The results of other studies stated that reproductive health education for adolescents is very important in helping adolescents acquire knowledge, awareness, attitudes, and healthy and responsible living behaviors. Knowledge is one of the driving factors for behavior change. Adolescents' knowledge of healthy behavior can influence the way they behave and make decisions in their reproductive health life. Reproductive health education programs have been able to increase knowledge and behavior about reproductive health [9], [16].

Another result of this study is that students who have sufficient knowledge indicate that they need special attention in realizing their reproductive knowledge before completing their social preparation towards adulthood. The results of a previous study stated that the increase in reproductive health knowledge was not only influenced by education but also the role of parents in preparing children for adulthood [9]. In addition, age is also considered as an indication of the level of maturity and attitude towards sexuality. In this study, there was a linear increase in knowledge about sexuality and reproductive health as respondents got older, implying that their age influenced the knowledge and type of information they obtained. As adolescents get older, they can understand how others perceive them and how they are expected to behave in certain roles or contexts; thus, they have attitudes that are considered appropriate [4].

4 Conclusion

This community service program shows that most students have a significant increase in knowledge after reproductive health education. This can be seen from the pretest and post-test questionnaires that had been distributed by the dedicated team. Reproductive health education is delivered very effectively so as to increase students' knowledge. The results of this activity also provide information that can be used for the development of a health promotive model for reproductive health.

Reference


[8]. Leekuan P, Kane R, Sukwong P, Kulnitchai W. Understanding sexual and


