



PEER EDUCATOR CAN CHANGE THE HEALTH LITERACY IN ADOLESCENTS

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MIKIA:
Mimbar Ilmiah Kesehatan Ibu dan Anak
(*Maternal And Neonatal Health Journal*)

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Article History

Received: November 9th, 2021

Accepted: December 26th, 2021

Published Online: May 30th, 2022

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ABSTRACT

Many reproductive health problems in adolescents' pregnancies such as unwanted pregnancies, abortion, sexually transmitted diseases, drug abuse, and HIV-AIDS are caused by poor reproductive health literacy. Improving reproductive health literacy can be done with peer educator methods. This is because peer educator not only provide information and experiences but also become real examples in educator. The purpose of the study was to explain the influence of peer educator on adolescent reproductive health literacy. The research method uses pre-experiments with the one-educator pretest-posttest design. The population in the study was 45 adolescent girls at the Thomas Morus girls' dormitory. Sampling is used purposive sampling. Based on the inclusion criteria, a sample size of 40 people. The study was conducted in September 2021 at the Thomas Morus girls' dormitory, Sikka Regency, East Nusa Tenggara Province. The data was collected using the HLS-EU-47Q questionnaire and analysed with the Wilcoxon test. The results showed there was a peer educator influence on adolescent reproductive health literacy ($p < 0.000$). Peer educator are shown to improve adolescent reproductive health literacy. Therefore, nurses and other health care providers must provide comprehensive and holistic reproductive health promotion that focuses on adolescent abilities through peer educator, so that adolescents have good health literacy and do not perform risky sexual behaviors.

Keywords: Adolescents, Peer Educator, Reproductive Health Literacy

INTRODUCTION

Reproductive health problems in adolescent girls are one of the important concerns in both developed and developing countries. Every day nearly 3,000 adolescents die from reproductive health problems (Ndayishimiye et al., 2020). This is based on the many fatal impacts of ignorance related to reproductive health including sexuality, unwanted pregnancy, abortion, sexually transmitted diseases, drug abuse, and HIV-AIDS (Liang et al., 2019). According to a report from the world health organization (WHO), as many as 16 million adolescent girls aged 15-19 years give birth every year and 95% of those births occur in low-

and middle-income countries. Pregnancy at a very young age is a serious problem, as many as 10% of adolescent girls become mothers by the age of 16. With the highest prevalence rates in Sub-Saharan Africa, Central Asia and Southeast Asia, it is also reported that many adolescents who have abortions and have sex for the first time are 15 years old. (George et al., 2020; Morris & Rushwan, 2015).

The prevalence of adolescent pregnancy aged 15-19 years in Latin America is 19.1%. (Dongarwar & Salihu, 2019). In Indonesia, risky adolescent behaviours such as dating occur at the age of 15-19 years as much as 33.3% for girls and 34.5% for boys. According to a report from Indonesia's basic health survey in 2017, as many as 8% of adolescents have had premarital sex. In addition, it is reported that as many as 50% of teenagers when courting does lip kisses and less than 37% know the fertile period (Kementerian Kesehatan RI, 2021). Premarital sex can increase the risk of contracting sexually transmitted diseases such as HIV-AIDS. In addition, the proportion of HIV infections in Indonesia in adolescents continues to increase from 18.4% in 2014 to 19.3% in 2015, and 21.0% in 2016 and is expected to continue to increase (Violita & Hadi, 2019). In East Nusa Tenggara province according to health statistics in 2019 as many as 5.11% of adolescents under the age of 17 years are married and in 2020 increased to 5.26% (Badan Pusat Statistik Provinsi Nusa Tenggara Timur, 2020)

One of the causes of many reproductive health problems in adolescents is a lack of reproductive health literacy. Poor health literacy among adolescents has an impact on high-risk behaviours and adverse health outcomes into adulthood and higher mortality (MacLean, 2020). More than 44% of pregnancies in adolescence are due to poor reproductive health literacy, while adolescents have difficulty understanding the reproductive health information provided. (Dongarwar & Salihu, 2019). Reproductive health literacy becomes important for adolescents to be able to control sex behaviours that can harm them. Reproductive health literacy is a person's ability to gain access to information, understand and use reproductive health information in accordance with the aim of improving, maintaining health and changing behaviour (Kilfoyle et al., 2016; Vamos et al., 2020).

Research related to reproductive health literacy in Indonesia is still lacking. Research by Lakhmudien et al (2019) in Semarang, the results showed the highest levels of adolescent reproductive health literacy in the low category. Similar research by Parante (2021) In Makassar, the results showed the most adolescent reproductive health literacy in the category of sufficient (44.8%) and problematic (40%). At the school level, reproductive health literacy is accommodated by youth information and counselling centres. These activities are managed

by adolescents in getting information about reproductive health, but in reality, adolescent information and counselling centres are less able to disseminate reproductive health information (Wijhati et al., 2020), This is also the case in Ethiopia which says only 8.6% of adolescents utilize reproductive health services, in addition to research recommending the need for other efforts to improve reproductive health literacy (Tilahun et al., 2021)

One intervention that can be used to improve reproductive health literacy for adolescents is peer educator. The peer educator method is based on the results of research from Wijhati et al (2020) which mentions the need for strategies such as peer educator in improving reproductive health literacy. This opinion is reinforced by Vamos et al (2020) research which explains that adolescent-centred interventions by utilizing peer educator can affect adolescent reproductive health literacy. The results of a study conducted in Vietnam by Santisouk et al (2020) mentioned that peer educator can predict the level of adolescent reproductive health literacy.

Peer educator is one method in providing direction, information and guidance so that adolescents openly reveal problems and ignorance related to reproductive health information (Dehghani, 2021). The advantages of the peer educator are the utilization and involvement together in exchanging knowledge, information and experience. The use of this method can improve reproductive health literacy following the results of research by Iqbal et al (2017) which said more than 71% of adolescents feel comfortable complaining and easily understand if the information provided by peers. Peer educator methods have proven to be highly effective at improving critical thinking skills. In addition, peer educator can affect changes in the health behaviour of HIV-AIDS patients and other chronic diseases such as cancer and diabetes (Hu et al., 2019; Krishnaratne et al., 2016; Sanders et al., 2021). According to data from the Statistics Center of East Nusa Tenggara Province, the Sikka regency is one of the districts with marriage rates of teenagers aged less than 17 years that continue to increase. In 2019 it was 2.91% and increased to 4.13% in 2020. One of the main causes is a lack of reproductive health literacy (Badan Pusat Statistik Provinsi Nusa Tenggara Timur, 2020).

The application of peer educator in improving reproductive health literacy needs further exploration, considering the many problems related to adolescent reproductive health and previous research has not provided clearer information. Based on these problems, it is considered necessary to conduct peer educator related research on adolescent reproductive health literacy. The purpose of the study was to explain the influence of peer educator on adolescent reproductive health literacy.

METHOD

The type of research used is pre-experimental with one educator pretest-posttest design. The population in the study was 45 adolescent girls in the Thomas Morus girls' dormitory. The sampling used is purposive sampling. Inclusion criteria: 1) adolescent girls aged 15-19 years, 2) willing to be a voluntary respondent 3) at least get 1 covid 19 vaccine. Exclusion criteria: adolescent girls who do not follow the research process until completion. Based on the criteria of inclusion, the overall sample in this study was 40 people. The study was conducted at Thomas Morus girls' dormitory in September 2021.

Instruments to measure reproductive health literacy using the HLS-EU-47Q questionnaire. The questionnaire contains 47 questions developed from the European Health Literacy Study project (Sørensen et al., 2013). The HLS-EU-47Q instrument consists of 4 dimensions, namely gaining access to reproductive health information, understanding reproductive health information, assessing information and applying reproductive health information. Answer questions using the Likert scale, 1 = very difficult, 2 = difficult, 3 = easy, 4 = very easy. How to calculate the score is to equalize the number of answers and subtracted by a value of 1, then the result of the reduction is multiplied by 50/3. The score on the HLS-EU-47Q questionnaire is 0-50. The score is then categorized as follows: 0-25 (inadequate), >25-33 (problematic), >33-42 (sufficient), >42-50 (excellent). HLS-EU-47Q questionnaire has been validated in Indonesia by Lakhmudien et al (2019). The validity test results obtained $r_{\text{count}} > 0.355$ and Cronbach Alpha = 0.9. The results of the validity and reliability tests in the study obtained $r_{\text{count}} > 0.422$ and a value of Cronbach Alpha = 0.97, so the questionnaire HLS-EU-47Q was declared valid and reliable.

Data collection is done after research permission is obtained. The first day of the pretest. At the pretest, 8 adolescent girls with the highest scores were selected as peer educator educators. On the second and third days of the intervention, 8 adolescent girls as peer educator educators were given material about reproductive health in 4 sessions. Session 1 discusses adolescent reproductive development, session 2 about the problems and causes of reproductive health disorders. Session 3 related to the impact of reproductive health disorders, Session 4 related to seeking information on adolescent reproductive. Each session for 1-2 hours. Furthermore, 8 educator were formed, each educator consisting of 5 people. Adolescent girls discuss, share experiences and information about reproductive health in 2 days (days 4 and 5, for 1-2 hours) facilitated by researchers. On the 6th day, the posttest was done. Data analysis using Wilcoxon-test. The implementation of research still pays attention to and implements the Covid-19 prevention protocol.

RESULTS

The results showed the most ages were 15 years old (30%) and the least 19 years old (7.5%). In addition, all respondents are students. Before being given a peer educator, the most reproductive health literacy was inadequate. Before being given a peer educator, the most reproductive health literacy was problematic. Based on the results of the Wilcoxon test at $p = 0,000$, there is a peer educator influence on adolescent reproductive health literacy.

Table 1. Demographic Characteristics of Respondents

| Variable (n=40) | f(%) |
|-----------------|-----------|
| Age | |
| 15 years | 12 (30) |
| 16 years | 11 (27.5) |
| 17 years | 9 (22.5) |
| 18 years | 5 (12.5) |
| 19 years | 3 (7.5) |

The result from table 1, the most age of respondents is 15 years old (30%).

Table 2. Reproductive Health Literacy Before and After being Given Peer Educator

| Reproductive health literacy (n=40) | f(%) | |
|-------------------------------------|-----------|-----------|
| | Pre-Test | Post-Test |
| Inadequate | 21 (52.5) | 2 (5) |
| Problematic | 9 (22.5) | 18 (45) |
| Sufficient | 8 (20) | 12 (30) |
| Excellent | 2 (4) | 8 (20) |

Table 2 shows that in the pre test 52,5% reproductive health literacy in inadequate category. Than, after post test 45% reproductive health literacy in problematic category.

Table 3. The Influence of Peer Educator on Adolescent Reproductive Health Literacy (Wilcoxon Test)

| Reproductive health literacy | Mean Rank | P value |
|------------------------------|-----------|---------|
| Pre | 16 | 0.000 |
| Post | | |

Table 3 shows the change in reproductive health literacy after education by peer educators.

DISCUSSION

The results showed there was a peer educator influence on adolescent reproductive health literacy ($p < 0,000$). The results of this study are similar to previous studies by Peters (2014) which states there is an influence of peer educator on adolescent reproductive health literacy. This study is similar to research by França et al (2020) That mentions higher levels of adolescent health literacy in peer educator. Peer educator effectiveness not only in reproductive health literacy but also in adolescent mental health literacy and health literacy in chronic patients such as multiple sclerosis (Dehghani, 2021). In addition, peer educator can improve the psychological aspects of chronic patients (Druss et al., 2018)

Peer educator is a partner of health workers to do reproductive health literacy. The existence of peer educator is very beneficial for adolescents, this is because teenagers will be easier to exchange information and experiences. In addition, empathy is higher in peer educator (Byrom, 2018). For adolescents, peer educator are preferred and accepted to discuss things that are considered sensitive such as sexuality issues and other personal issues because the role of peers is very important at this stage of adolescent development. Not only that, with the presence of peer educator, it is possible for spontaneous and informal contact that has the impact of risky behavior changes (Rose-Clarke et al., 2019).

Peer educator is a educator of people of the same relative age who exchange experiences and health information. Peer educator can provide motivation and responsibility for organized education that aims to improve skills, self-awareness so that adolescents accept responsibility to avoid risky behaviours (Nursanti et al., 2021). The basic characteristics in peer educator are the relatively small number of discussion participants and the common interests and openness of information (Meherali et al., 2020; Misch & Dunham, 2021). Various studies have proven that peer educator are significantly able to increase knowledge, change attitudes and behaviours but can provide satisfaction and improve the quality of life so that it is easily accepted and applied by individuals (Toija et al., 2019)

The results showed there was a difference in scores before and after the peer educator (mean rank 16). This study is similar to research from Lakhmudien et al (2019) that mentions as much as 48.2% of reproductive health literacy rates in the problematic category. However, after peer educator, there was an increase in adolescent reproductive health literacy. This is because peer educator methods are very effective when compared to other methods such as direct demonstration and individual education. (Borzou et al., 2014). This is in accordance with the opinion by Krishnaratne et al (2016) Who states that peers have a very important role

as a source of information to improve reproductive health literacy such as HIV prevention. Paek et al (2011) states adolescents with risky behaviours get health information from peers to show high health literacy. This opinion is reinforced by Joyani et al (2018) who mentions peers play an important role in carrying out health education in educator. In addition, peers not only provide information and experience but also become real examples in the educator.

This research is different from the research conducted by Lakhmudien (2018) in the city of Semarang that mentions no peer educator influence on reproductive health literacy ($p > 0.05$). This difference is due to the limitations of information and experience. The same is said in the study by Sanders et al (2021) there was no significant change in health literacy in either educator. One of the reasons that peer educator are not effective in improving health literacy is the selection of peer educator educators who are not suitable, namely peer educator educators who have a lack of ability and experience (Dehghani, 2021)

Improving adolescent reproductive health literacy requires appropriate methods in accordance with the stage of development. Reproductive health literacy is the most relevant determinant of health. Reproductive health literacy is associated with knowledge, complement, motivation, and proper decision-making in maintaining health by avoiding a variety of risky behaviours (Walters et al., 2020). The main goal of a peer educator is behaviour change. Adolescents must be literate in reproductive health. Peer educator become determinant factors and interventions that can affect a person's level of health literacy. Peers provide empathy when someone has a problem, this raises concerns about sharing reproductive health information (Manganello, 2008; Meherali et al., 2020)

CONCLUSION

Peer educator can improve adolescent reproductive health literacy, therefore, nurses and other health care providers should provide comprehensive and holistic reproductive health promotion that focuses on adolescent abilities through peer educator, so that adolescents have good reproductive health literacy and do not perform risky sexual behaviours.

ABBREVIATIONS

AIDS: Acquired Immuno Deficiency Syndrome

Covid 19: Corona Virus Disease

HIV: Human Immunodeficiency Virus

HLS-EU-47Q: Health Literacy Survey-Europe-47 Questions

WHO: World Health Organization



ACKNOWLEDGMENT

Nusa nipa higher education foundation that has funded this research.

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