PEER EDUCATION PREVENTS SEXUAL RISK BEHAVIORS AMONG ADOLESCENTS IN RURAL AREAS

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ABSTRACT
Introduction: Adolescents as a transitional period can be a problem because there are many changes, both physically, psychologically, and intellectually, which makes them - as a population - vulnerable to performing risky behaviors, including risky sexual behavior. Peers have an important role in the social life of adolescents because teenagers spend more time with their friends, and generally teens also make their peers as their role model. This study aims to determine the effect of peer-based education in the prevention of sexual risk behavior among adolescents in rural areas. Methods: This research was a pre-experimental quantitative study with a one-group pre-post test design. The research was conducted between April and June 2017 with 61 respondents selected using the purposive sampling method. The research instrument used was a questionnaire and data analyzed with paired t-test. Results: It was found that there were significant differences in the prevention of sexual risk behavior among adolescents in rural areas before and after being given sexual education through peer education with a p-value = (0.002). The proper timing of education, a conducive environment and a good level of concentration in learning makes the peer education work optimally. Conclusions: There is a significant effect of peer education on the prevention of sexual risk behaviors among adolescents in rural areas. It is recommended to conduct research in other regions with different characteristics.

Keywords: adolescent, sexual risk behavior, peer education, rural

INTRODUCTION
Sexual risk behavior, as one of the most vulnerable risky behavior patterns done by adolescents, includes all forms of sexual behavior that are at risk of causing an adverse negative impact (Mirzaei et al, 2016). These sexual behaviors include premarital sex which can lead to unwanted pregnancies, unsafe abortions, sexual intercourse with multiple partners and other behaviors that are at risk of transmitting diseases caused by sexually transmitted infections, including HIV (Kementrian Kesehatan RI, 2014).

Currently, the United Nations (UN) estimated that in 2012, the teenagers population in the world was up to 1.5 billion, or about 18% of the total world population. This is expected to increase by 24% in 2040 (United Nations, 2012). The high population of adolescents can be a problem because adolescents as a transitional period in which there are many changes physically, psychologically, and intellectually. This makes teenagers, as a population, vulnerable to performing risky behaviors, including risky sexual behavior. This vulnerability is exacerbated by the character of the teenagers being, commonly, those who like challenging and adventurous things, who have a high sense of curiosity, and who tend to dare to take risks without considering it first in a mature manner (Kementrian Kesehatan RI, 2014).

The current condition of adolescent sexual risk behavior is alarming, particularly teenagers are the future generation that is expected to have a good character and pattern of behavior. This is so then, in the future, they can form a better country. The Indonesian health demographic survey conducted in 2007 and 2012 regarding the reproductive health of teenagers, carried out by the Central Bureau of Statistics, proved that boys admitted to having premarital sex more when compared to girls, with a presentation that is likely to increase from 2007 to 2012 ie 10.5% to 14.6% in men and 1.4% to 1.8% in women (Kemenkes RI, 2015). Rural areas are an area of low population density where there is often a lack of facilities, diagnostic and treatment centers, and trained professionals (Popp, 2010). These limits make the population more at risk of risky behavior. This has been proven by Thompson’s research (Thompson et al, 2017), in which more teens from rural areas reported ever having had sex (24.0%) compared to urban teens (19.7%).

The survey conducted by the National Commission for Child Protection in 2012 of 4,500 teenagers in 12 regencies in Indonesia also found that 97% of them had watched porn, 93.7% had engaged in kissing, oral sex and petting, 62.7% of respondents who were in junior high school students had had sexual intercourse, and 21.2% of the
respondents who were in high school had had an abortion (Badan Pusat Statistik, Badan Koordini Keluarga Berencana Nasional, Departemen Kesehatan, 2013). The knowledge of adolescent sexual behavior in Yogyakarta itself is based on a survey of sex education and the understanding of the attitudes to and sexual behavior of adolescents in Yogyakarta conducted by Salirawati, Ratna, & Endrawati (2014) with 600 respondents. They found that as many as 51.3% of the respondents had watched pornographic videos and 29.3% of them wanted to watch porn again. The reason that they watched pornographic videos was (36.5%) because of curiosity and (30%) for fun. The influence of their friends was predominant, as 64.3% of the respondents got access to the pornographic videos from a friend. Another representation also found that 65.8% of respondents were already dating or were in a relationship, 10.3% of them had kissed someone else on the lips, and 0.5% (two respondents) of them had had sexual intercourse.

The overview is that the level of sexual risk behavior in adolescents is so high that it will certainly cause new problems because of the impact of the aforementioned behavior. The possible impacts include an increased incidence rate of unwanted or unintended pregnancy, sexually transmitted diseases, HIV/AIDS, as well as other impacts in the psychological and social field. Based on the Ministry of Health Republic Indonesia’s (2013) report, the estimation and projection of HIV prevalence in the population of 15-49 year olds in Indonesia in 2011-2016 increased significantly by 0.38% (2011), 0.41% (2012), 0.42% (2013), 0.46% (2014), 0.48% (2015), and 0.5% (2016) respectively (Kementerian Kesehatan Republik Indonesia, 2013).

Based on the resulting impacts, risky sexual behavior requires prevention or treatment to be implemented as soon as possible. Various studies have been conducted to determine the best treatment method. Harsanti’s (2012) study on assertiveness training related to risky sexual behavior in adolescents showed that assertiveness training was proven to have a significant influence on risky sexual behavior in adolescents.

Adolescents are generally influenced by various factors such as family, parenting, personality, the alterations of the era, their neighborhood, gender, their level of knowledge, socio-cultural aspects and their peers. An individual’s peers are one of the dominant factors; the more mature a person is, the stronger the influence of their peers will be because older individuals will spend more time with their friends (Ulty Desmarnita, Sri Djuwitaningsih, 2014). Research by Merliana, Puspitaningrum, & Damayanti, (2012) found that the role of one’s peers was 0.095 times more likely to result in positive behavior in order to prevent deviant behavior, compared to those who did not want to receive information on the prevention of deviant behavior from their peers.

Peers who have a great influence on the study make peer-based education more effective. Currently, education by peer groups has begun to become one of the more popular strategies in various regions, countries and health programs (Jannah, 2014). Research by Eryna, Utami, & Surasta, (2015) and Setyoningsih & Warsiti, (2012) proved that peer education is an effective educational method to improve adolescent knowledge, attitude, and behavior. Based on this background, the researcher became interested in conducting research to determine the effect of peer education in the prevention of risky sexual behavior among adolescents in rural areas.

**METHODS**

This research study was a pre-experimental quantitative study utilizing a one-group pre-post test design. The sample used in this study consisted of 61 respondents. This sample size was calculated based on the power and effect size analysis. The effect size and power used in this research was 0.50 and 0.80, meaning that the required sample is 61 people. The sample participants were selected through the purposive sampling method. The research was conducted at SMP Negeri X Sedayu from April through June 2017. The independent variable in this research was peer education, while the dependent variable in this research was the prevention of risky sexual behavior among adolescents.

There were 10 peer educators and 10 small groups which contained 6-7 respondents per group. The peer educators were selected by the school or teacher based on following the criteria: having the ability to lead a discussion and the ability to convey and receive the material, having an interest in preventing risky sexual behavior, having
empathy and not being prejudiced against people who engage in risky sexual behavior. They also had to have the ability to actively engage in the research process. The interventions using peer-based education were conducted over three sessions for the duration of a one hour lesson (45 minutes) at each meeting. The education was done through discussion techniques in the small groups run by each peer educator based on the educational module that had been compiled by the researchers.

The instrument used was the prevention of sexual risk behavior questionnaire developed by the researchers and declared valid by the value of r 0.295 to 0.748. It was also found to be reliable with an alpha value of 0.890. The prevention of sexual risk behavior was considered to be good if it had a score of 75% - 100%, enough if it was 50% - 74%, and less effective if the score was ≤49%. The data obtained was then analyzed using a Paired Simple t-test.

This study protocol was received and approved by the Ethics Committee of the Faculty of Medicines and Health Sciences in Universitas Muhammadiyah Yogyakarta based on ethical approval number 164/EP-FKIK-UMY/III/2017.

RESULTS

Table 1. Frequency Distribution of the Respondent Characteristics

<table>
<thead>
<tr>
<th>Respondent Characteristic</th>
<th>(n)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 y.o</td>
<td>12</td>
<td>19.7</td>
</tr>
<tr>
<td>13 y.o</td>
<td>43</td>
<td>70.5</td>
</tr>
<tr>
<td>14 y.o</td>
<td>6</td>
<td>9.8</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>22</td>
<td>36.1</td>
</tr>
<tr>
<td>Female</td>
<td>39</td>
<td>63.9</td>
</tr>
<tr>
<td>Sexual Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever</td>
<td>41</td>
<td>67.2</td>
</tr>
<tr>
<td>Never</td>
<td>20</td>
<td>32.8</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data 2017

Based on Table 1 regarding the frequency distribution of the respondent characteristics by age, it appears that most of the respondents were 13 years old (43 students; 70.5%). By sex, the number of female students dominated at experience of having received sexual education, more than half of the students (67.2%) had previously received sexual education.

Table 2. Frequency Distribution of the Prevention of Sexual Risk Behavior among Adolescents before and after Peer Education.

<table>
<thead>
<tr>
<th>Category</th>
<th>Before (n)</th>
<th>(%)</th>
<th>After (n)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>55</td>
<td>90.2</td>
<td>57</td>
<td>93.4</td>
</tr>
<tr>
<td>Enough</td>
<td>6</td>
<td>9.8</td>
<td>4</td>
<td>6.6</td>
</tr>
<tr>
<td>Less</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>100</td>
<td>61</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data 2017

Table 2 shows the prevention of sexual risk behavior in adolescents in rural areas. After being given peer education on the prevention of sexual risk behavior among adolescents, the ability to prevent sexual risk behavior in the good category increased from 55 students (90.2%) to 57 students (93.4%)

Table 3. Distribution of the T test analysis results, including the Pre Test and Post Test referring to the Prevention of Sexual Risk Behavior among adolescents in Rural Areas.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>64.38</td>
<td>5.786</td>
<td>61</td>
<td>0.002</td>
</tr>
<tr>
<td>Post Test</td>
<td>66.51</td>
<td>5.644</td>
<td>61</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data 2017

Based on Table 3, the mean score of the pre-test referring to the prevention of sexual risk behavior among adolescents in rural areas was 64.38 with a standard deviation of 5.786. After being given sexual education through the peer-based education method, the mean score became 66.51 with a standard deviation of 5.644. Based on the statistical test Paired Sample T-Test, the p-value was 0.002 smaller than the value of α (0.05). It can be concluded that there was a significant difference in the prevention of sexual risk behavior among adolescent in rural areas before and after being given sexual education through the peer education method. It can thus be said that sexual education through the peer-based education method can prevent...
sexual risk behavior among adolescents in rural areas.

**DISCUSSION**

Based on the frequency distribution data of the prevention of sexual risk behavior among adolescents in rural areas as shown by Table 2, the prevention of sexual risk behavior both before and after being given peer education was in the good category. This is caused by environmental factors, and the controlled access of information.

The environment in rural areas has characteristics that allow teenagers to have safer sexual behaviors. This is because people in rural areas still have good social controls such as curfew limits, and people who still respect and comply to the suggestions of the community leaders. The social life of a rural teenager is also still traditional, so they are not picky in making friends and even if they are not close friends, they usually all know one another. The places where the interaction is usually restricted to the village hall to see a show, to the night market or visiting a friend's house. In addition, teenagers in rural areas are also usually shy when close to the opposite sex even if only ordinary friends (Suparmini, 2012). This is consistent with the research conducted by Rizal (2016) in the village of Sekura Mlonggo in the District of Jepara, Kyai. Community leaders have an important role in the formation of adolescent morals such as avoiding promiscuity. Ulfa's (2015) research on the role of families to overoming pregnancy out of wedlock among adolescents in Sekuduk village also mentioned that the function of supervision by the family was to supervise their children when with their peers, including their use of mobile phones and curfew restrictions. This played an important role in preventing children from promiscuity, thus preventing the occurrence of pregnancy outside of wedlock. However, in contrast the research and surveys on the reproductive health behaviors in urban and rural adolescents by Tesmei (2014) found that the urban adolescent sexual behavior was better than that of adolescents in villages.

A more protective village environment and a normative culture would make the prevention of adolescent sexual behavior better than that in the cities, but there is a difference between the research of Tesmei (2014) compared to the theory and results of this research. Based on the researcher's analysis, this can occur depending on how much control there is over the confounding factors in the research process and the environmental characteristics of the study. Based on the research method used by Tesmei (2014), it is known that the respondents of the research used as many as 90 teenagers, with 51 respondents in rural areas and 39 respondents in urban areas. This can make the quantity of rural adolescents who are engaging in sexual behavior become more than the adolescents in town. This is because the research respondents in both areas are not on par, so the chances will be different concerning sexual behavior. Based on the discussion, the environment becomes an important factor that affects the behavior of adolescents, especially in the prevention of sexual risk behavior. Confounding factors such as the use of less appropriate research methods are also factors to consider.

Easy access to information, not only on the availability of physical facilities but also good control of the access to information, especially access to information about sexuality, needs to be noted. It is important to note that although the information and communication facilities in rural areas are not optimal yet, good control of the access to information in rural areas can prevent risky adolescent sexual behavior in rural areas, since schools in rural areas have policies that prohibit the students from bringing in smartphones. The availability of information resources in the form of the teacher, especially adequate counseling guidance, is also a good form of the control of access to information. Control of access to information is important, and in line with Tristiadi's (2016) study stating that poor access to information media such as pornography has a significant relationship on premarital sexual behavior. Based on these explanations, it can be concluded that controlled access to information is one of the factors that made the prevention of sexual behavior in adolescents in rural areas included in the good category.

Based on the Paired Sample T-Test statistic test, the mean value of the pre-test and post tests were 64.38 and 66.51 respectively and the p-value of 0.002 was less than α (0.05). Under the terms of p <0.05, it can be concluded that there is a significant difference in the prevention of adolescent sexual risk behavior in rural areas before and after sex education through peer education methods. It can be said that sexual education through the peer education method affects the prevention of sexual risk behavior in adolescents in rural areas. This can be due to several factors such as the proper timing of education, a conducive
Peer Education Prevents Sexual Risk Behavior ... (Sri Andini, et.al)

A conducive environment when providing education also plays an important role in the success of education in addition to it being given at the right time, because a conducive environment that is calm and without minimal distractions can increase concentration and ultimately, can make the learning process optimal. Pakpahan’s research (2013) showed that there is a positive and significant influence from the learning environment on the student’s achievement class as shown in the study in X Administration Office Vocational High School (SMK), during the Raksana 2 Medan Lesson Year. The better the learning environment, the better the learning achievements. Listyanto (2013) also mentioned that there is a significant correlation from the learning environment on the student learning outcomes with the coefficient of determination being 32.6%. The learning environment during the process of educating on the prevention of sexual risk behavior among adolescents in rural areas is often very quiet. This is because the school environment is far enough from the road where passing vehicles make noise. In addition, while class VIII and class IX were closed, only class VII still followed the teaching and learning activities. The school situation was calmer than usual, so based on the environmental conditions where the research was conducted and given the explanation that the environment affects the results of learning, it is clear that the environment becomes one of the factors that influences the success of peer education related to the prevention of sexual risk behavior among adolescents in rural areas. Good concentration when learning will increase the understanding of the material studied, because the level of concentration can reduce the distractions or interferences. The information received will therefore be optimal. This has been proven through Kintari’s (2014) research, which found that the level of concentration when learning has a positive influence on the results of learning accounting in the students of class XI, social sciences, in the Senior High School (SMA) of Muhammadiyah Sragen. This is in line with research by Cahya & Tuasikal (2017), which mentions that there is a significant relationship between the level of student concentration with the final result of successful under basketball shoots among the extracurricular participants at SMA Negeri 11, Surabaya, Year 2016/2017. The better the concentration, the better the results of the learning. If viewed based on the characteristics of the region, environmental conditions in rural areas are often very quiet, and far from the crowds like shopping centers. A calm and conducive environment becomes a factor that influences the learning and learning outcomes in the students (Cahya & Tuasikal, 2017). In line with research by Ariwibowo (2012) on the achievement of civic students of Ahmad Dahlan University, the environment had a significant influence on the civic student’s achievements by 7.3%. The more conducive the environment or the more calm the environment, the better the level of concentration and overall achievement.

The limitations of this study were the sample selection process being without randomization and the education time in each meeting being too short.

CONCLUSIONS

Peer education can prevent sexual risk behavior among adolescents in rural area, especially if done in an environment with a conducive atmosphere. It is recommended for further researchers to conduct studies on the adolescent populations in other regions with different characteristics.

REFERENCES


Peer Education Prevents Sexual Risk Behavior ... (Sri Andini, et.al)


