EDUCATION EFFECT TOWARD ENHANCE ADOLESCENCE HEALTH REPRODUCTION IN SENIOR HIGH SCHOOL

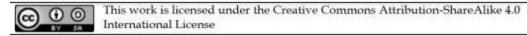*Dwiesfiza Muharawita[1], Hardisman[1], Firdawati[1], Teguh Widodo[2]

[1]Public Health Graduate Program of Universitas Andalas - Indonesia
[2]Sumatera Barat Population and Family Planning Board (BKKBN)
*E-mail: dwiesfiza.muharawita@gmail.com

ABSTRACT

The problem of Adolescent Reproductive Health (KESPRO) from time to time is increasing both qualitatively and quantitatively due to a lack of understanding of sexual and reproductive health. This study aims to determine the differences in the method of counseling and simulation games on the level of students' knowledge of reproductive health (KESPRO). The research method used a quasi-experimental design with a *non-randomized control group pre-test-post-test* which was conducted at State Senior High School 4 (SMAN 4) Padang City. The results showed that the extension method did not increase students' knowledge scores. Retention of students' knowledge after 3 days and 1 week of intervention with the extension method also did not increase students' knowledge scores. Based on the difference in the average score of students' knowledge about KESPRO after 1 week of intervention, the simulation game method group (1.04) was greater than the extension method (0.01) this means that the simulation game method can be better in maintaining memory students after 1 week of intervention about an information.

Keywords: health reproduction, counseling method, education for adolesence, SMAN 4 Padang

INTRODUCTION

Based on data obtained from the Padang City Civil Service Police Unit in 2016, it was found that 26 students (high school) were caught in raids with several cases, 15 people were dating in the dark, 5 people with community diseases (arrested by residents), 6 people were caught in the dark. in nightclubs (Susanti *et al,* 2017). In 2017 it was found that as many as 35 cases of students were caught in raids, namely cases of dating in a dark place, 6 students were caught with cases of community disease, 8 people were caught in a nightclub. In 2018 (January-July) it was found, 8 students were dating in a dark place, 3 students were caught with community disease, 1 person was caught in a nightclub. According to data obtained by students who are often subject to enforcement by SATPOL PP, the average is private high school and vocational high school students (SATPOL PP, 2018).

Various efforts have been made from the government and schools but deviations committed by adolescents are still common, this is also due to the lack of parental supervision and the lack of parental knowledge of adolescent development. Furthermore, (Fitriana & Siswantara, 2018) added that reproductive health education (KESPRO) is not only the responsibility of schools and the government, but needs to get support from families and communities.

In the BKKBN report (2002) and research by (Iriani *et al,* 2006), there are three (3) main groups of problems in youth KESPRO in Indonesia, namely: 1) information problems about KESPRO, namely poor information flow or stimulating sexual behavior and

ineffective information KESPRO youth from officers and parents; 2) behavioral problems, namely the increasing sexual activity among adolescents; and 3) the problem of health services, namely the place of service for youth KESPRO which is still very lacking, unskilled officers or services that do not meet the needs of adolescents. Based on the background stated above, the authors are interested in knowing the effect of education through media counseling and simulation games on adolescent knowledge about KESPRO at SMA N 4 Padang.

METHODS

This type of research is a quasi-experimental design with a non-randomized control group pre-test-post-test design by (Nugrahaeni & Margawati, 2014) and; (Rahim & Muslimin I, 2019). This research is often used to compare one intervention or health education with another. This research design was not randomized to determine the experimental group. This research was conducted in two (2) groups to determine the difference between the counseling method (experimental group 1) and the simulation game method (experimental group 2) in increasing adolescent knowledge about KESPRO. This design can be illustrated as in Table 1 below:

Table 1. Design can be illustrated

Group	Pre-test	Treatment	Post-Test 1	Post-Test 2	Post-Test 3
E_1	O_1	X_1	O_2	O_3	O_4
E_2	O_5	X_2	O_6	O_7	O_8

E_1	:	Group experiment 1
E_2	:	Group experiment 2
O_1	:	Pre test observation of health reproduction knowledge to the adolescence before being given treatment to the group experiment 1
X_1	:	The treatment uses counseling method
O_2	:	Post-test observation of health reproduction knowledge to the adolescence after being given treatment to the group experiment 1
O_3	:	Post-test 2 observation of health reproduction knowledge to the adolescence 3 days after being given treatment to the group experiment 1
O_4	:	Post-test 3 observation of health reproduction knowledge to the adolescence a week after being given treatment to the group experiment 1
O_5	:	Pre test observation of health reproduction knowledge to the adolescence before being given treatment to the group experiment 2
X_2	:	The treatment uses game simulating method
O_6	:	Post test observation of health reproduction knowledge to the adolescence after being given treatment to the group experiment 2
O_7	:	Post-test 2 observation of health reproduction knowledge to the adolescence 3 days after being given treatment to the group experiment 2
O_8	:	Post-test 3 observation of health reproduction knowledge to the adolescence a week after being given treatment to the group experiment 2

This research was conducted at SMA N 4 Padang City in 2021 with a population of all teenagers sitting in class X. The sample size was calculated using the hypothesis test formula for the average difference in the independent group as follows (Sudigdo, 2014).

$$n_1 = n_2 = 2\left[\frac{(Z_a + Z_b)S}{X_1 - X_2}\right]^2$$

Notes :

N : Looked for sample size
Z_A : Standard deviation alfa type i (a) 5 % = 1,64
Z_B : Standard deviation alfa type ii (b) r 10 % = 1, 282
S : Standard deviation (mixed) = 2,55 (TARIGAN, 2010)
$X_1 - X_2$:The minimum difference in the mean that is considered significant = 2,2 (tarigan, 2010)
The based on predetermined numbers, sample size in this study is:

$$n_1 = n_2 = 2\left[\frac{(1{,}64 + 1{,}28)2{,}55}{2{,}2}\right]^2$$

$$n_1 = n_2 = 2\left[\frac{(2{,}92)2{,}55}{2{,}2}\right]^2$$

$$n_1 = n_2 = 2\left[\frac{7{,}5}{2{,}2}\right]^2$$

$= 2\,[\,3{,}4\,]^2$
$= 2\,[11{,}6\,]$
$= 23, 2$
$= 24$

The sample size obtained based on the above formula calculation is 24 respondents. Anticipating the possibility of drop outs during the implementation of the study, the sample sizes for the experimental group 1 and experimental group 2 were each added to 30 people, so the total sample for the two experimental groups was 60 people. Referring to (Sugiyono, 2013), the sample was taken systematically based on two (2) criteria, namely 1) Inclusive, namely students sitting in class X SMA N 4 Padang City which is the age group of puberty and the most critical period for the development of subsequent life. They live with both parents. The students are not a transfer from another area and they are willing to take part in the activities that will be carried out to completion; and 2) Exclusion, namely students with health problems; They have attended health reproduction of education training either from PKBI, BKKBN, schools or health agencies.

RESULT

3.1 The difference in the mean score of knowledge before using the method with counseling and simulation games.

The results showed that the knowledge score before being given the method through the extension media was 31.07 + 2.63 while the knowledge score before using the simulation game method was 30.8 + 2.29. Statistically, there was no difference in the knowledge scores of the respondents before being given the method through extension media and the method through simulation games (p>0.05). This is because most (56.65%) students have received information about KESPRO sourced from the media.

3.2 The difference in the mean score of knowledge before and after the extension method

The results showed that students' knowledge about KESPRO after the extension method did not increase significantly (p = 0.82). The average score of students' knowledge before

the extension method was 31.07 while after the extension method the average knowledge score decreased to 31.00.

The results of this study indicate that there is no difference in students' knowledge before and after the extension method. The difference in the average knowledge of students before and after being given information through the extension method decreased. The decrease in the average score of knowledge in the extension method was due to the method used during counseling in the form of lectures which could cause boredom and decrease concentration in students. In accordance with the opinion of (Riaty Z & Masrul H, 2016) who said that education will be successful if there is an increase in knowledge and the success of an education is influenced by strategies, methods, and tools used in the learning process.

3.3 The difference in the average knowledge score before and after the simulation game method metode

The results showed that students' knowledge about KESPRO before and after the intervention was carried out using the simulation game media method, statistically there was no difference with the p value (0.12). However, based on the difference in the average score of students' knowledge about KESPRO before and after the intervention was carried out, there was an increase from the average knowledge score of students before the method with the simulation game of 30.80 and after the method with the simulation game the average score of knowledge became 31.33.

Judging from the difference in the mean score of knowledge before and after 3 days of using the simulation game method, the results showed that the difference in knowledge scores before the simulation game method and after 3 days of implementing the simulation game method was 1.37+0.49. The statistical test said that there were differences in students' knowledge scores after 3 days of using the simulation game method ($p < 0.05$), meaning that students who performed the simulation game method on KESPRO could maintain their knowledge of KESPRO after 3 days of implementing the simulation game method.

3.4 The difference in the mean score of knowledge before the extension method and simulation games were carried out with the average knowledge score after the extension method and simulation games were carried out

The results showed that the difference in the average score of students' knowledge before and after being given the extension method was 31.07+30.80, while the average knowledge score before and after being given the simulation game method was 30.80+31.33. Statistically there was no significant difference between the difference in the mean score of knowledge in students who were carried out with the extension method and the simulation game method ($p < 0.05$).

The results of this study indicate that based on statistical tests, there is no difference in students' knowledge between the extension method and the simulation game. The difference in the average knowledge of students before and after the simulation game method was high compared to the students' knowledge of the extension method. Changes in the increase in the average score of knowledge in both methods are possible because the facilitator is quite good at delivering material about KESPRO, besides the method given at the time of the intervention in the form of a game can motivate and generate interest in students to know and understand it.

Judging from the difference in the average score of knowledge before and after 3 days

of extension methods and simulation games, based on the results of the study, it was shown that the average difference in knowledge about KESPRO after 3 days of intervention in students with the extension method was 31.13 + 1.833, while in the simulation game method 32 ,17+1,802. Statistically there was a significant difference between students' knowledge scores after 3 days of the extension method and the simulation game method (p=0.03). Based on the difference in the average score of students' knowledge about KESPRO after 3 days of intervention, the simulation game method group (1.37) was greater than the extension method (0.06) this means that the simulation game method can be better in maintaining memory students about an information. Retention or memory of the material so that it is not easily forgotten can be done by repeating the material learned repeatedly, using tables, diagrams and pictures. Time can affect knowledge of one's learning outcomes (Hardini I & Puspitasari D, 2012).

Games can be used as persuasive and interesting media in providing health education to (Fitriyah & Rahmawati A, 2021) students. Game media in the form of snakes and ladders can create an atmosphere of learning activities to be more interesting, fun, fresh, lively and relaxed. The results of this study indicate that students' knowledge of KESPRO at SMA N 4 Padang lasts longer (retention) after 3 days of being given counseling methods and simulation games. Judging from the difference in the mean score of knowledge before and after 1 week of extension methods and simulation games, the results showed that the average difference in knowledge about KESPRO after 1 week of intervention in students with the extension method was 30.90 + 1.884, while the simulation game method was 32, 37+1,884. Statistically there was a significant difference between students' knowledge scores after 1 week of the extension method and the simulation game method (p=0.003). Based on the difference in the average score of students' knowledge about KESPRO after 1 week of intervention, the simulation game method group (1.04) was greater than the extension method (0.01) this means that the simulation game method can be better in maintaining memory students after 1 week of intervention about an information.

CONCLUSION

From the results of the research that has been carried out, it can be concluded that: 1) There is no difference in the level of knowledge of students before and after being given counseling methods about KESPRO; 2) There is no difference in the level of students' knowledge before and after being given the simulation game method about KESPRO, but there is a difference in the level of students' knowledge after 3 days of being given the simulation game method and after 1 week being given the simulation game method about KESPRO; and 3) There is no difference in the level of students' knowledge before and after being given the extension method and the simulation game method about KESPRO but there is a difference in the level of students' knowledge after 3 days of being given the extension method and the simulation game method and after 1 week being given the simulation game method about KESPRO. With regard to these results, it is recommended that: 1) Schools using the simulation game method can be an option in learning and in extracurricular activities; and 2) the Department of Health and the BKKBN create and improve the youth KESPRO program with effective health education through counseling methods and simulation games.

REFERENCES

Fitriana, H., & Siswantara. (2018). Pendidikan KESPRO remaja di SMPN 52 Surabaya. . *The Indonesian Journal of Public Health*, *13*(1), 107–118.

Fitriyah, S., & Rahmawati A. (2021). Penerapan Metode Permainan Ular Tangga" Stop Trash" Terhadap Pengetahuan Mengenai Sampah Pada Siswa Sekolah Dasar Di Indramayu. *Afiasi: Jurnal Kesehatan Masyarakat, 6, 66-70.*, *6*, 66–70.

Hardini I, & Puspitasari D. (2012). *Strategi pembelajaran terpadu*. Familia.

Iriani, F. ., Nisfiannoor, M., & Tendy N.Y. (2006). Perbedaan sikap terhadap hubungan seks pranikah antara remaja yang diberi penyuluhan dan yang tidak diberi penyuluhan KESPRO remaja. Jurnal Psikologi, 4(1), 14-37. *Jurnal Psikologi*, *4*(1), 14–37.

Nugrahaeni, S. A., & Margawati, A. (2014). Pengaruh Modul terhadap Peningkatan Pengetahuan, Sikap dan Praktek Kader dalam Upaya Pemberian ASI Eksklusif. *Gizi Indonesia*, *37*(1), 19–28.

Panduan Pembinaan dan Pengembangan Pusat Informasi dan Konsultasi Kesehatan Reproduksi. Jakarta: BKKBN. (2002).

Rahim, R., & Muslimin I. (2019). Perubahan Pengetahuan Ibu Hamil Trimester II dalam Mencegah Stunting melalui Pendidikan Kesehatan dengan Pendekatan Modelling. *Jurnal Keperawatan*, *11*(4), 301–306.

Riaty Z, & Masrul H. (2016). *Studi Perbedaan Metode Diskusi Kasus Dengan Metode Ceramah Dalam Meningkatkan Pengetahuan Remaja Tentang HIV/AIDS di SMA N 5 Padang.* .

SATPOL PP. (2018). *Laporan SATPOL PP Kota Padang Tahun 2017*.

Sudigdo, S. (2014). *Dasar-dasar metodologi penelitian klinis* (5th ed.). FKM Universitas Indonesia.

Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. CV . Alvabeta.

Susanti D, Doni A.W, & Rustam Y. (2017). Pengaruh Pendidikan Kesehatan Pranikah Terhadap Pengetahuan dan Sikap Calon Pengantin di Lubuk Begalung Padang Tahun 2017. *Jurnal Sehat Mandiri*, *13*(2), 18–25.