ISSN 1978-2071 (Print); ISSN 2580-5967 (Online)
Jurnal Ilmiah Kedokteran Wijaya Kusuma 10(2) : 166-175, September 2021

Effects of Reproductive Health Education Using Video Animation Towards Reproductive Health Knowledge and Attitudes in 5th and 6th Elementary Grade Students in Serang City, Banten

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Abstrak

Latar belakang: Edukasi kesehatan reproduksi remaja bertujuan untuk meningkatkan pengetahuan dan sikap tentang kesehatan reproduksi. Oleh karena itu, diperlukan metode edukasi yang mudah, murah, dan terstandarisasi untuk menyampaikan materi kesehatan reproduksi kepada remaja, salah satunya adalah dengan media animasi audiovisual.
Metode: Penelitian ini dilakukan dengan menggunakan desain penelitian pra-eksperimental *pretest-posttest one group design* pada kelompok studi dalam waktu 31 hari. Studi ini menggunakan total subyek sebanyak 180 subyek, selanjutnya, data dianalisis menggunakan *Structural Equation Modeling* (SEM).
Hasil: Edukasi dengan video animasi kesehatan reproduksi dapat meningkatkan pengetahuan tentang kesehatan reproduksi segera setelah edukasi diberikan (P = 0,002), tetapi setelah 31 hari, pengaruh edukasi tersebut menghilang (P = 0,171). Edukasi dengan video animasi tidak mempengaruhi sikap subjek segera setelah edukasi dilakukan (P = 0,802) akan tetapi memiliki efek setelah 31 hari sejak awal edukasi diberikan (P = 0,031). Setelah menganalisis korelasi termasuk variabel *confounding* lainnya (R square), Ditemukan bahwa efek edukasi dengan video animasi terhadap meningkatnya pengetahuan tentang kesehatan reproduksi adalah sebesar 14,9%, dan 8,4% terhadap perubahan sikap subjek.
Diskusi: Edukasi kesehatan dengan video animasi dapat meningkatkan pengetahuan, Kemungkinan edukasi ini dapat mengubah pengetahuan melalui rangsangan positif pada dorsolateral prefrontal cortex (DLPFC) dan supplementary motor area (SMA) sehingga dapat dengan cepat diterima oleh otak namun fenomena sikap seperti kencan masih terjadi bahkan pengetahuan subjek telah meningkat.
Kesimpulan: Edukasi kesehatan reproduksi menggunakan video animasi meningkatkan pengetahuan tetapi tidak mengubah sikap dalam kesehatan reproduksi

Kata kunci: sikap, pengetahuan, video animasi, kesehatan reproduksi

Abstract

***Introduction**: Adolescent reproductive health education aims to increase knowledge and attitudes about reproductive health. Therefore, an easy, inexpensive, and standardized method of education is needed in the delivery of reproductive health material to young adolescents, one of them is audiovisual media animation.*

***Method**: The research was conducted using a pre-experimental research design pretest-posttest one group design within 31 days. This study used a total sample of 180 subjects, furthermore, the data were analyzed using Structural Equation Modeling (SEM).*
***Result**: Education with reproductive health animated videos increased knowledge about reproductive health immediately after education was given (P = 0.002), but after 31 days, it did not affect (P = 0.171). Education with animated videos did not affect the subjects' attitude immediately after education was carried out (P = 0.802) but had an effect after 31 days from the start of education (P = 0.031). After analyzing the correlation including other confounding variables (R square), it was found that the effect of education with animated videos towards the increasing knowledge of reproductive health was 14.9%, and 8.4% towards changes in subject attitudes.*
***Conclusion**: Reproductive health education using animated videos increases knowledge but does not change attitudes in reproductive health*

***Keywords**: attitude, knowledge, video animation, reproductive health*

INTRODUCTION

Puberty is marked by various changes, both biological, psychological, and social. These changes can cause problems including reproductive health issues (BKKBN, 2013; Nurdianto, 2020; Bolin, 2009). According to the 2012 Indonesia Demographic Health Survey (SDKI), the knowledge of adolescent in Indonesia related to reproductive health is considered to be lacking (Sholiha, 2015) On the other hand, the majority of Indonesian people, especially parents are still reluctant and even consider taboo to discuss about developments and issues related to reproductive health and puberty with their children (Hull et al, 2005; Kemenkes RI, 2017; Kusmiran; 2011; Maharani et al, 2016)

Knowledge about adolescent reproductive health is affected by many things, including the ease of accessing mass media, television, and the internet that can have either positive or negative impact on adolescent knowledge related to reproductive health (Catarina, 2011; Christie et al, 2005; Depkes RI, 2000). The knowledge possessed by adolescents will affect sexual attitudes and behavior, especially during puberty (Manuaba, 1998; Murre et al, 2015; Notoatmodjo, 2012, 2013; Prijati et al., 2016).

As the result, proper and comprehensive knowledge of reproductive health is needed. The knowledge is obtained through various means, one of them is education (Purwanto, 2000; Samandari et al., 2010; Santhya et al., 2010). Adolescent reproductive health education aims to increase adolescent knowledge that affects attitudes and ablility to lead to adolescent motivation to learn more about reproductive health through appropriate educational methods (Astri et

al., 2016; Ahmadi, 2009; Poltekkes Depkes Jakarta, 2012).

Based on the information above, the researchers try to find easy, inexpensive, non-vulgar, and standardized methods in the delivery of reproductive health material, one of them is using video animation (Poltekkes Depkes Jakarta, 2012).

METHOD

This type of research is a quantitative study with a pre-experimental research design pretest – posttest one group design (Sofyani, 2015) The research data was taken from January 2019 to February 2019. The study was located in three locations, those are Sekolah Dasar Negeri (SDN) Sawah Luhur, Sekolah Dasar (SD) Lopang Domba, and SDN Terondol, Serang City Banten. The subjects were all elementary school students grade 5 and 6 who were present during the pretest, education, and post-test and 31 days after the post-test. The pretest is given to subjects to find out the extent of their knowledge and attitudes about reproductive health. After that, they were given education on reproductive health using video animation and then given a post-test. After that, the researcher will give a post-test again 31 days afterward to measure whether the material provided can be obtained properly in a long time or not (Sofyani, 2015)

Sampling used in this research is a total sampling technique of 180 subjects. The data is analyzed using Structural Equation Modeling (SEM) and continued with correlation analysis including the other confounding variables (R square). This study has obtained ethical clearance from the Health Research Ethics Moment of Rumah Sakit Umum Daerah (RSUD) Saiful Anwar Malang (No. 400/207/K.3/302/2019).

RESULTS

A total of 187 subjects participated in the questionnaire sampling, but 7 of them did not complete the questionnaire, therefore, it could not be analyzed. Respondents who were the subjects of the study were 180 students (Table 1).

According to the results of the questionnaire (Table 2), 44.7% of male students had shown a primary sign of puberty which was having a wet dream where spermarche usually occurs at an average age of 13.4 years (WHO, 2011), while 40% of students women already menstruate where menarche generally occurs on average 12.8 years of age (Wiknjosastro, 2007)

It was found that 39.4% of the subjects admitted that they had been dating and 50% of the student subjects had started

to be attracted to the opposite sex. This case should receive special attention. Exposure to good and comprehensive information and the social environment or peers have an important role in providing a positive and protective effect on adolescent reproductive health.

Before testing the hypothesis, the measurement model is evaluated first for verifying indicators and latent variables. In the reliability indicator, a reflective indicator must be eliminated from the research model when the loading value is <0.4. Then the questions from the knowledge questionnaire including P1, P7, P8, P11, P12, P14, P15, as well as from the attitude questionnaire including S4, S7, S8, S10 were eliminated because they were considered invalid and reliable.

Questionnaires analyzed for knowledge were P2, P3, P4, P5, P6, P9, P10, and P13 and for attitudes were S1, S2, S3, S5, S6, and S9 (Table 3).

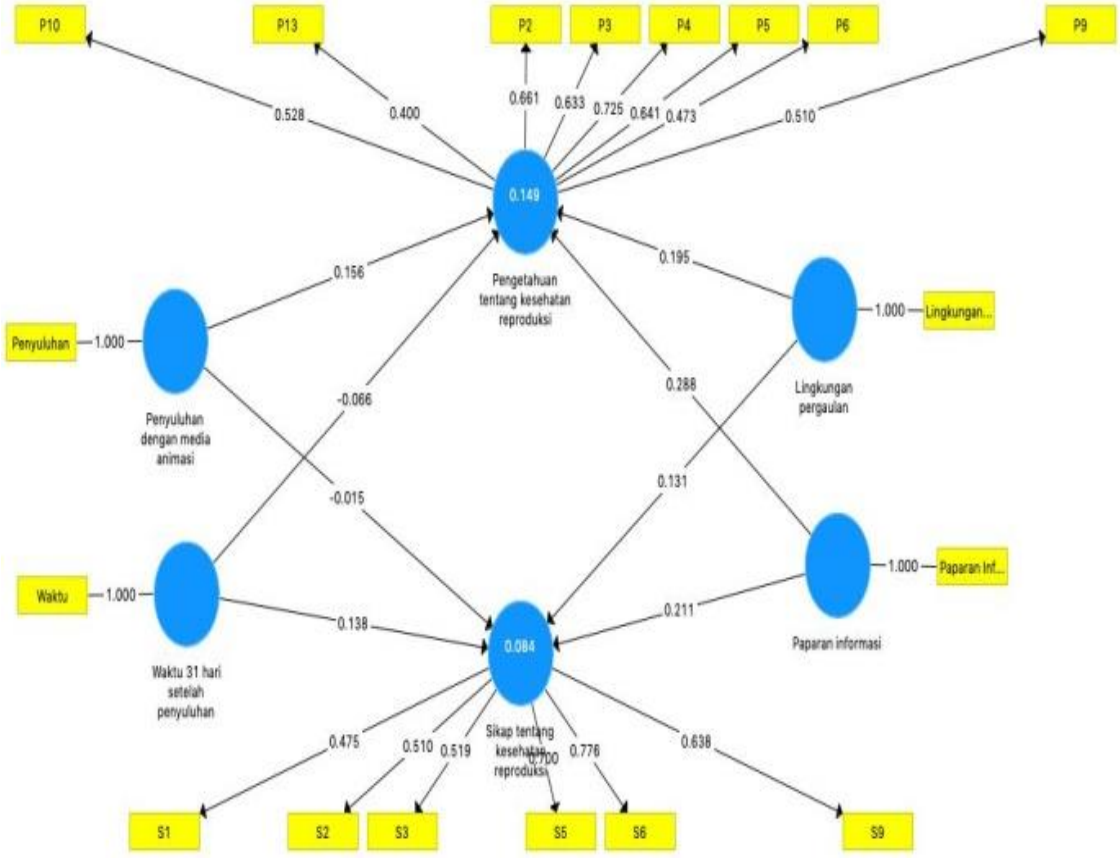

Figure 1. Final Path Chart included with Factor Loading Values after Elimination of Phase 2 Indicators

Table 1 History of Menstruation in Female Students and Wet Dreams in Male Students

	Already	Not Yet	Total
Already got wet dream	38	47	85 male student
Already got menstruation	38	57	95 female student

Table 2. History of dating and being attracted to the opposite sex

	Yes	No	Total
Dating history	71	109	180
Being attracted to the opposite sex	90	90	180

Table 3. Correlations between Variables

	Knowledge of reproductive health	Attitudes about reproductive health
Social environment	0,195	0,131
Information exposure	0,288	0,211
Education with video animation (pre test)	0,156	-0,015
31 days after education (posttest)	-0,066	0,138

Table 4. Calculation Results Using Bootstrapping

	Standard Deviation	T *Statistics*	P *Values*
Social environment → Knowledge	0,044	4,451	0,000
Social environment →Attitude	0,062	2,109	0,035
Information exposure → Knowledge	0,037	7,724	0,000
Information exposure → Attitude	0,045	4,716	0,000
Education → Knowledge	0,049	3,157	0,002
Education → Attitude	0,061	0,251	0,802
31 days → Knowledge	0,048	1,372	0,171
Time 31 days → Attitude	0,064	2,168	0,031

DISCUSSION

The hypothesis of reproductive health education using animated videos can improve knowledge of reproductive health is proven to be P = 0.002 (P <0.05), but after 31 days of education, it does not affect (P = 0.171).

These results are in line with research conducted by Benita (2012), Buzarudina (2013), Astri (2016), and Johariyah (2018) which concluded that reproductive health education using various methods will affect reproductive health knowledge. Animated videos in this study can increase knowledge in subjects (Johariah et al, 2018; Benita, 2012; Bensley et al., 2008; Buzarudina et al., 2013). The level of knowledge after 31 days post-education in this study is not statistically significant, which might due to education through animated videos is not repeated (kardes, 2001).

The results showed that 39.4% of the subjects were dating and 50% began to be attracted to the opposite sex. These results can be inferred that it was obtained from the influence of film, television, social media, and the environment around the subject that causes the subject to feel interested in imitating the dating behavior

of their idol actor or actress in all of those media. This is in line with the results of a survey by the Indonesian Family Planning Association (PKBI) in Central Java, which shows that around 40% of the subjects admitted to having been dating and 73.3% of them started dating from the age of 10-15. Among adolescents who have been dating, 11.2% of them admitted that they had handled their partner's reproductive organs (Sukmaningsih et al., 2018) These cases make this animated video education very necessary to change dating habits and attraction between the opposite sex from an early age.

The hypothesis of reproductive health education using animated videos has an effect on attitudes about reproductive health was not proven in this study, which was indicated by a value of P = 0.802 (P> 0.05). Interestingly, after 31 days, education with animated videos affects attitudes about reproductive health (P = 0.031). The possibility of this happens because there are other factors within 31 days after an education that affect attitudes about reproductive health, such as increased awareness of adolescents about reproductive health which then affects the attitude of the subject. After all, one's attitude is strongly influenced by the formation of perceptions of reproductive health attitudes after 31 days of education, where the process of forming the subject's perception starts from a stimulus received by the senses, in this case, is categorized as audio-visual stimulation (Damayanti, 2000) The stimuli are then selected and run into an organizing process. After that, the individual will assess or interpret the data that has been received, thus a person's perception is formed (Damayanti, 2000) The occurrence of perception is influenced by internal and external factors. Internal factors include feelings, attitudes, and individual personalities, prejudice, desires, attention, physical conditions, mental disorders, needs, and motivation. External factors include family background, information obtained, knowledge, intensity, size, opposites, repetition of motion, and new things (Ardiyanti et al, 2013; Arisana et al., 2012). All of these things are thought to affect changes in the reproductive health attitudes of subjects after receiving education through animated videos.

CONCLUSION

Reproductive health education using animated videos increases knowledge but does not change attitudes in reproductive health. The phenomenon of dating at an early age is one of the findings that can be developed into new research, therefore adolescents do not experience reproductive health problems later in life.

ACKNOWLEDGEMENTS

The authors would like to express gratitude for the Study Program of Social Gynecology Obstetrics Sub-Center Malang, Universitas Brawijaya which was willing to help with this research.

DISCLOSURE

The author reports no conflicts of interest in this Research entitled Effects of Reproductive Health Education Using Animation Media on Knowledge and Attitudes about Reproductive Health in Elementary and 5th Grade Students in Serang City, Banten.

ABBREVIATIONS

Indonesia Demographic Health Survey (SDKI); Sekolah dasar negeri (SDN); Sekolah dasar (SD); Structural Equation Modeling (SEM); Rumah Sakit Umum Daerah (RSUD)

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