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Research Article

Influence of Educational Videos on Knowledge and Attitude on Reproductive Health in Adolescent

Eti Nopyanti^{1,2} | Elfira Sri Futriani² | Suliati Suliati¹ | Farida Murtiani^{1,3*} | Aninda D. Widiantari¹

¹Sulianti Saroso Infectious Disease Hospital, Indonesia

²Abdi Nusantara Health College, Indonesia

³Indonesia Epidemiological Association, Indonesia

*contact

idoel_fh@yahoo.com

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Abstract

Aims: Reproductive health education is essential to improve knowledge and attitude to grow up and live healthily. Audiovisual media as teaching method is considered as effective way to deliver message and material for health topic in teenager. It was reported that 10-14 years-old adolescent in Jakarta has reached 874,865 people in 2020. High populated of adolescent increased higher-risk sexual behavior. Sexual and reproductive education aims to increase knowledge about the anatomy and physiology of the organs and also improve attitude to avoid high-risk sex behavior.

Objective: We aim to observe the effect of educational videos on the knowledge and attitudes of adolescents about reproductive health.

Method: Quasi-experimental research with pre and post-test without control group. Research sample was 100 students of 231 Junior School Jakarta using systematic random sampling. Intervention was educational videos about healthy sex behavior.

Result: We found significantly increased average knowledge (15,91 vs 23,24, $p=0,0001$) and attitude (34,12 vs 43,26, $p=0,0001$) score after the intervention.

Conclusion: There was an significant difference of adolescents' knowledge and attitudes about reproductive health after educational video interventions. School and teacher play an active role in reproductive health counseling activities for adolescents with the right media.

Keywords:

Adolescent; Attitudes; Educational Video; Knowledge; Reproductive Health

INTRODUCTION

The World Health Organization (WHO) explained that an adolescence is the transitional stage between childhood and adulthood, 10-19 years old people (1). Ericson divides adolescent into 3 stages based on age; early adolescence (10-14 years), mid-adolescence (15-16 years), and late adolescence (17-20 years) (2). Adolescent go through some certain development in physical, emotional, cognitive and psychosocial aspects (3).

These changes are caused by specific characteristic of adolescents that full of curiosity, adventurous, willing to take challenges and risks without careful consideration. Thus, they tend to do deviant behaviour (4).

Demographic data showed the proportion of adolescent was accounted to 16% of the general population or 1,2 billion people in 2019 (5). In Indonesia itself in 2020, the number of adolescents was 64.19 million people (24.01%) including boys (50.78%)

and girl (49.22%) who lived in urban areas (57.94%) and in rural areas (42.06%). The number of 10-14 years-old adolescents in Jakarta Province in 2020 874,865 people. High proportion of adolescents imply higher risk sexual behaviour (6). High-risk sexual behaviour in adolescents according to research by Fitriani et al., was accounted to 4.92%. It encompassed 56,9% of kissing; 30,7% hickey; 13.8% petting; 7,2% oral sex; 5.5% anal sex and 14.7% have had sexual intercourse (7).

Teenagers problems are complex. Lack of knowledge about reproductive health was shown in our preliminary study. Sex education for adolescent includes understanding the anatomy and physiology of reproductive organs. It is mainly aim to educate adolescents to protect themselves from high risk and unhealthy sex behaviours (8). Providing reproductive health information for adolescents through adolescent reproductive health education in school should be undertaken. In order to optimize the program, it is necessary to choose the right method and media. Health counselling can be combined with eye-catching media such as print, exhibition/display, audio, audio-visual and multimedia. The effectiveness of the use of extension media is largely determined by the number of senses involved. Extension messages will be easy to understand and understand if they involve more senses to use (9).

Several studies mentioned effectiveness of using audio-visual media in reproductive health education. A study of Mustofa stated reproductive health education using animated videos increases knowledge but didn't change attitude in reproductive health (10). Febriana study mentioned there was an increase in knowledge of the use of video media for learning nutrition and reproductive health in adolescents (11). Research conducted by Rashdan et al confirmed educational videos can improve knowledge related to reproductive health, STDs, and HIV/AIDS, as well as improve respondents' attitude towards STDs and

premarital health screening (12). Research of Lestari also state adolescent reproductive health education through animation media had an influence on changes in knowledge and attitudes in junior high school students (13).

Based on a preliminary study that we had conducted on 231 Junior School, North Jakarta, we found that knowledge score was poor (n=15, 75%) and good (n=5, 25%). Half of students had positive attitudes (n=10, 50%) and the other half has negative attitude (n=10, 50%). We also interviewed them and the majority said that they never get sex education from the closest environment, such as parents. In addition, there was no specific program that provide reproductive health problems in students. According to the results, we were encouraged to carry out an experimental method to educate adolescents about reproductive health using animation media.

METHODS

The research was a quasi-experimental study with pretest-posttest without control group and conducted on October-December 2022. Respondents were 100 seventh grade students of the seventh grade of 231 Junior School of North Jakarta. Respondents were gathered using systematic random sampling technique. Research instruments were informed consent and questionnaires. Questionnaire was adopted from Setyawan DA's (14) and Rizqiyah's study in similar topic to study knowledge and attitude score (15).

We studied univariate and bivariate analysis of the research with Wilcoxon test. Inclusion criteria included 13-15 years old adolescent who haven't received any sex education, being cooperative and willing to participate in the study. We excluded respondent who didn't follow research instructions completely. The study had been reviewed by Ethic Committee of Sulianti Saroso Hospital by approval letter no 07/XXXVIII.10/1/2023.

RESULTS

This study was conducted on December 2022. We gathered 100 students who met inclusion and exclusion criteria. In knowledge score, there were 96 students that had improved their score in post-test and 4 others had the same score as pretest. Average knowledge score before the educational video intervention was 15.91 ± 3.33 (8-26). After the intervention, average knowledge score was increased to 22.24 ± 3.84 (13-28). Based on the Table 1, Good Knowledge category increased from 2% to 61% and Poor Knowledge category decreased from 56% to 15% after the intervention. Table 1 described frequency distribution of knowledge and attitude score based on Nursalam (16).

Table 1. Frequency Distribution of Knowledge and Attention Score Before and After Intervention

Variable	Pretest (n)	Post-test (n)
Knowledge Score*		
▪ Poor	56	15
▪ Moderate	42	24
▪ Good	2	61
Attitude Score#		
▪ Positive	52	70
▪ Negative	48	30
Total	100	100

*Poor category covered <56% of true answers; Moderate 56-75%; and Good 76-100%. #Positive attitude scores more than or equal to median, Negative attitude scored lower than median level. We analyzed correlation between knowledge score, attitude score and the intervention. By performing bivariate analysis using Wilcoxon test, it showed significant difference after the intervention (15.91 vs 22.24, $p=0.001$) in knowledge score.

Increasing average score was also described in attitude score. It increased from $34,12 \pm 4,61$ (20-44) before the intervention to $43,26 \pm 5,12$ (34-64) after the intervention. Using the same test, we also found significant difference in Attitude Score (34.12 vs 43.26, $p=0.001$).

Variables	Mean	Negative ranks	Postive ranks	Ties	P value
Knowledge Score					
Pretest	15,91	0	96	4	0,001
Post-test	22,24				
Attitude Score					
Pretest	34,12	0	94	6	0,001
Post-test	43,26				

DISCUSSION

Learning process is influenced by various internal factors, such as motivation and external factors such as information facilities availability as well as socio-cultural conditions. Notoatmojo said that learning is an attempt to acquire new things

in behavior including knowledge, skills, and values with one's own mental activity (17). Knowledge is ultimately expected to influence behavior.

This research described the positive correlation between knowledge score and educational video about reproductive

health in adolescents whose. These results are in line with the research of Simaimbang et al. which described there was align with the prior researchs. Study of Simaimbang et al. which described an increase in the average knowledge of students before and after being given interventions regarding reproduction and sexualitysexual and reproductive health using flipcharts and animated videos (18). Research by Ranni explained application of audiovisual method at SMK Negeri 3 Denpasar had increased students' knowledge about adolescent reproductive health (19). In line with to research by Rashdan et al., educational videos can increase knowledge regarding reproductive health, STDs, and HIV/AIDS (12). Research by Ningsih et al. stated the presence of effect of health education through animated media on the knowledge about adolescent reproductive health of junior high school students at the Nurul Jadid Islamic Boarding School (20) Research by Fajurrahman It is also mentioned that counseling using video is more effective in increasing adolescent reproductive health knowledge compared to power point (9).

The process of forming attitudes takes place gradually, starting from the learning process. This learning process can occur because of a person's personal experiences with certain objects, such as people, objects or events, by connecting these objects with other experiences where a person has a certain attitude towards that experience or through a process of social learning with other people (21). Learning process is influenced by various internal factors, such as motivation and external factors such as information facilities availability as well as socio-cultural conditions. Notoatmojo said that learning is an attempt to acquire new things in behavior including knowledge, skills, and values with one's own mental activity (17). Knowledge is ultimately expected to influence behavior.

The positive correlation between attitude score and educational video about reproductive health in adolescents

($p < 0,05$). These results were in line with research of Ningsih et al. It was found that there were 19 girls (63%) had positive attitude score before intervention which increased to 27 girls (90%) after intervention (20). Research Similar results found by Simaimbang et al that showed that there was an increase in the attitude score after being given information about reproduction health (32,96 to 35,34) (18). Lestari's research also proved there were differences in adolescent attitudes after watching reproductive health education through animation media (9.14 vs 12.59 after the intervention) (13).

The process of forming attitudes takes place gradually, starting from the learning process. This learning process can occur because of a person's personal experiences with certain objects, such as people, objects or events, by connecting these objects with other experiences where a person has a certain attitude towards that experience or through a process of social learning with other people (21).

There are differences in the respondents' attitudes influenced by the differences in the respondents' knowledge. Increased knowledge experienced can provide changes in attitudes and acceptance in responding to the provision of health education so that attitudes can change for the better, and adolescents will be positive and responsible for their reproductive health if they receive the right knowledge and information related to with reproductive health (22). Video media contains visual messages supported by sound audio so that it can help clarify te messages. The many senses of acceptance involved largely determine the effectiveness of the use of extension media. Extension messages will be easy to understand and understand if they involve many senses to be used (9).

Watching video activate almost all of the sensory sense. The more sensory sense 'awakened up', the clearer an information or knowledge obtained so that students can

recall the material that has been given. After the process, the knowledge will reach short-term memory. Pausing time need to be given to test long-term memory and to give space to fill out questionnaires (10).

Educating via audio-visual media can foster students interest in accelerating the process of understanding and strengthening memories gained through auditory and visual senses at the time of intervention. This is most likely because audio-visual media involve many senses. The more senses involved, the more likely information is to be understood and retained in the memory Educating via audio-visual media can foster the interest of students in accelerating the process of understanding and strengthening memories which are students' interest in accelerating the process of understanding and strengthening memories gained through auditory and visual sense at the time of intervention. This is most likely because audio-visual media involves many senses. The more senses involved, the more likely information to be understood and retained in memory (23). Delivering health information, especially those are related to diseases, via this method are very optimal to increase students' awareness and attitude toward reproductive health, in order to avoid reproductive health problems in the future related to diseases, via this method are very related to diseases, which are optimal to increase students' awareness and attitude toward reproductive health in order, to avoid future reproductive health problems in the future. This is reinforced by Maulana's opinion which mentioned audio-visual media affected learning domain in improving cognitive abilities and influencing attitude and behaviour change (24).

The use of media can help focus students' attention, make it easier to understand the material, increase responsiveness and enthusiasm for learning. It also processing the information obtained because learning

activity becomes more real and interesting than reading-only (25). Audiovisual displays in animated media present more complex and real events through sound and moving images that is able to adjust to faster or slower, can facilitate student learning easier to understand. Therefore, pupil will be able to filter out actions that should be done and actions that are detrimental through clear and appropriate information and education (13).

We believed concluded using attractive and interesting health education media, such as videos and animation, can improve students' knowledge. It was considered as more efficient, modern and interactive that was able to catch students' interest. We argued beliefs and opinions about an object forms a person's attitude. The process carried out by the sensory system and the ability to think about images or objects on video media can influence adolescent reproductive health attitudes and behavior.

CONCLUSION

Based on the results of research and discussion above, we concluded there were increases in significant difference average of knowledge and attitude score after the educational animation video intervention. Statistical analysis also identified positive correlation between knowledge and attitude score and sex education using animation video. Therefore, we recommended and encourage school to conducting sex education for adolescent using creative media and facilitate health counseling program by collaborating with health institutions.

REFERENCES

1. World Health Organization (WHO). Guidance on ethical considerations in planning and reviewing research studies on sexual and reproductive health in adolescents. World Health Organization; 2018. 41 p.
2. Kemenkes RI. Profil Kesehatan Indonesia Tahun 2019. Jakarta,

- Indonesia: Jakarta: Kementerian Kesehatan RI; 2020.
3. Singh JA, Siddiqi M, Parameshwar P, Chandra-Mouli V. World Health Organization Guidance on Ethical Considerations in Planning and Reviewing Research Studies on Sexual and Reproductive Health in Adolescents. *Journal of Adolescent Health*. 2019;64(4):427-9.
 4. SDKI. Survei Demografi dan Kesehatan: Kesehatan Reproduksi Remaja. Jakarta; 2017.
 5. UNICEF. Adolescents Statistics : Investing in a safe, healthy and productive transition from childhood to adulthood is critical. 2019.
 6. BPS Provinsi Banten. enduduk Menurut Kelompok Umur dan Jenis Kelamin di Provinsi Banten (Jiwa), 2018-2020. Banten; 2020.
 7. Fitriani H, Suwarni L, Hernawan AD. Model IMB (Information, Motivation, Behavioral Skills) Sebagai Prevensi Primer Seks Pranikah Remaja. *Jurnal Endurance*. 2019;4(3):622.
 8. Setyawan DA. Pengaruh pendidikan kesehatan terhadap pengetahuan remaja tentang kesehatan reproduksi (Studi di SMA Muhammadiyah 2 Mojokerto). *Stikes Insan Cendekia Medika. Sekolah Tinggi Ilmu Kesehatan Insan Cendekia Medika Jombang*; 2018.
 9. Faijurahman AN, Ramdani HT. Efektivitas Penyuluhan Kesehatan Dengan Video Dan Powerpoint Reproduksi Remaja (Studi kasus di SMK HIKMAH Garut). *Jurnal Kesehatan Tambusai*. 2022;3:177-84.
 10. Mustofa E, Subadiyasa IMA, Sholahuddin A, Nurdianto AR. 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. *Jurnal Ilmiah Kedokteran Wijaya Kusuma*. 2021;10(2):166.
 11. Febriana R, Devi Artanti G, Rusilanti R. The Effectiveness of Learning Videos for Increasing Knowledge about Women's Adolescent Nutrition and Reproductive Health. *KnE Social Sciences*. 2020;2020:628-37.
 12. Rashdan NA, Firdaus T, Karima AS, Nadia N, Holipah H. The Effect Of Providing Educational Videos Towards Knowledge, Attitude, And Behaviours Related To Reproductive Health, STIS, And HIV/AIDS In Non-Medical Communities. *Journal of Community Health and Preventive Medicine Vol*. 2021;1(2):1-9.
 13. Lestari YD, Herawati, Permatasari L, Hamidah N. Pengaruh Pendidikan Kesehatan Reproduksi Remaja melalui Media Animasi terhadap perubahan Pengetahuan dan Sikap pada Siswi SMP di Pondok Pesantren Nurul Jadid. *Midwifery Journal*. 2021;3(1):1-9.
 14. Setyawan DA. The Influence Education of Health to Adolescent Knowledge About Health Of Reproduction (Study in SMA Muhammadiyah 2 Mojokerto - Mojokerto). [Jombang]: STIKes Insan Cendekia Medika; 2018.
 15. Rizqiyah IR. The effectivity of reproductive and sexual health education with the lecture method and small group discussion method to the level of knowledge and attitude of adolescent aged 16-17 years old. [Surabaya]: Universitas Airlangga; 2018.
 16. Nursalam. Metodologi penelitian ilmu keperawatan: Pendekatan praktis / Nursalam. 5th ed. Vol. 4. Jakarta: Salemba Medika; 2020.
 17. Notoatmodjo S. Promosi Kesehatan dan Ilmu Perilaku. In Jakarta: Jakarta: Rineka Cipta; 2015.
 18. Simaibang FH, Azzahroh P, Silawati V. Pengaruh Media Lembar Balik, Video Animasi Terhadap Pengetahuan dan Sikap Mengenai Reproduksi Seksualitas pada Siswa Sekolah Dasar di Jakarta



- Timur. *Jurnal Ilmiah Kesehatan*. 2021;13(1):104-12.
19. Ranni GAIP, Lestari RTR, Sari NAME. Pengaruh Pemberian Pendidikan Kesehatan Audiovisual Tentang Reproduksi Remaja Terhadap Pengetahuan Perilaku Seksual Pranikah. *Bali Medika Jurnal*. 2020;7(1):46-60.
 20. Ningsih WA, Suseno MR, Hamidiyanti BYF. Pengaruh Pendidikan Kesehatan Menggunakan Media Video Dan Alat Peraga Terhadap Pengetahuan Dan Sikap Remaja Putri Tentang Personal Hygiene Pada Masa Menstruasi Dalam Layanan Homecare. *Jurnal Kebidanan*. 2021;10(2):59-69.
 21. Wawan, A., & Dewi M. *Teori dan Pengukuran Pengetahuan, Sikap dan Perilaku Manusia*. Yogyakarta: Yogyakarta: Nuha Medika; 2018.
 22. Murti DP, Winoto Y. Hubungan Antara Kemampuan Literasi Informasi dengan Prestasi Belajar Siswa SMAN I Cibinong Kabupaten Bogor. *Biblotika: Jurnal Kajian Perpustakaan dan Informasi*. 2018;2(1):1-5.
 23. Jatmika SED, Safrilia FE. Perbedaan Edukasi Konsumsi Sayur Dan Buah Pada Anak Sd Menggunakan Metode Ceramah Dengan Alat Peraga Dan Media Audiovisual. *Gizi Indonesia*. 2019;42(1):53.
 24. Urrahmah A, Emma S, Jatmika D. Pengaruh Media Audio Visual Terhadap Pengetahuan Dan Sikap Personal Hygiene Menstruasi Pada Santri Di Pondok Pesantren Al Muna 2 Bantul. *Eprints UAD*. 2019;1-12.
 25. Lestary L, Fuji ER, Dasuki D, Oktaviano I. Pengaruh Penyuluhan Kesehatan Reproduksi Melalui Media Elektronik Video Terhadap Tingkat Pengetahuan Kesehatan Reproduksi Pada Siswa SMP Negeri 9 Surakarta. *Universitas Muhammadiyah Surakarta*; 2014; 1-13

