



The Impact of Health Education with Demonstration Methods and Video Animation on Santriwati Constitution in Yogyakarta IT Building School

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ABSTRACT

Background: Breast cancer ranks first in Indonesia with the highest incidence of cancer and is the leading cause of cancer deaths. One of the causes of breast cancer has increased due to the lack of education about SADARI (Breast Self Examination) during adolescence for early detection of breast cancer, so that the knowledge that adolescents have about health is very minimal and can cause a lack of concern or insensitivity to a symptom of a disease that arises abnormally in the body, so health promotion is needed in an effort to increase knowledge related to SADARI. Health promotion in adolescent girls will be more interesting if it is carried out with various methods such as demonstrations and showing videos. **Objective:** Knowing the difference in knowledge improvement between demonstration methods and animated videos in SADARI health education for female students. **Methods:** This type of research is a quantitative study with Quasi Experiment, Non-Equivalent with Control Group Design which was conducted from February to March 2023. The population female students of class X, XI, XII Natural Science and Social Science at SMA IT Bina Umat Yogyakarta. The technique of taking samples with proportionate stratified random sampling. **Results:** Wilcoxon test in the experimental group obtained p value = 0.000 and in the control, group obtained p value = 0.000. Mann Whitney test in the experimental and control groups after the intervention obtained p value=0.025. **Conclusion:** There is a difference between the demonstration method and the animated video to the increased santriwati knowledge of SADARI with a value of $p=0.025$ ($p<0.05$). The demonstration method makes the teaching clearer and more concrete and focuses the attention of the student as well as better directs the student's learning process to the materials being studied.

INTRODUCTION

Breast cancer is common in women of all ages including adolescents in every country in the world after puberty, but with an increase in later days. A total of 2.3 million women worldwide are diagnosed with breast cancer and 685,000 are dying globally by 2020. By the end of 2020, there are 7.8 million women who have been diagnosed suffering from breast cancer in the last five years, making it the most common cancer worldwide (World Health Organization (WHO), 2021). Riskesdas data, the incidence of tumors/cancer in Indonesia shows an increase from 1.4 per 1,000 population in 2013 to 1.79 per 1000 population in 2018. The highest incidence of cancer was in Yogyakarta Province with 4.86 cases per 1000 inhabitants, followed by Western Sumatra 2.47 per 1000 and Gorontalo 2.44 per 1000. (Kementerian Kesehatan RI, 2019).

Breast cancer ranks first in Indonesia with the highest incidence of cancer and is the leading cause of cancer death. The incidence of breast cancer in women in Indonesia was 42.1 per 100,000 inhabitants with an average of deaths of 17 for 100,000, followed by cervical cancer of 23.4 per 100.000, with a death rate of 13.9 per 100.000. (The Global Cancer Observatory, 2021).

Sleman Regency Health Profile Data 2019, the incidence of breast cancer was 1472 people. That's bigger than a total of 164 cases of cervical cancer. Although the cure has not been found, preventive efforts can be made through some routine examinations such as Self Breast Examination (SADARI) and Clinical Breast Inspection (SANIS) in the breast cancer prevention and control program in the district of Sleman

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through the SADANIS program that covers all women who have had sexual intercourse (Profil Kesehatan Kabupaten Sleman Tahun 2020).

One of the causes of breast cancer is increasing due to the lack of education about breast cancer in adolescence to deal with as well as early detection of breast cancers, so the knowledge that adolescents have about health is minimal and can lead to lack of care or insensitivity to a symptom of disease that arises abnormally in the body. The cause of the high death rate from cancer is also because the patient has just arrived in the health care when the illness, he suffered has reached an advanced stage, then the healing process will be more difficult (Heryani dkk. 2020).

Until now, self-examination or SADARI has been a very effective method for detecting breast cancer at an early stage. SADARI is easy to do and can be used in all age groups, both teenagers and adult women (Lestari & Attamimi, 2022). In fact, women, especially teenage girls, are still not aware of the importance of the practice. Health education is important so that teenage daughters know and have the ability in early detection of breast cancer (Krisdianto, 2019).

The promotion of good health and its implementation in schools is a strategic step to enhance the knowledge of teenage daughters according to Pratama in (Nurhayati dkk. 2021). The health promotion of teenage girls in schools would be more interesting if it was done with a variety of methods such as demonstrations and video broadcasts. The demonstration method can be a suitable method used to facilitate explanation to respondents because the language used is more restricted, avoided from verbalism, and will help respondents clearly understand the course of an attentive process because it is more interesting (Bando & Elihami, 2021). The learning video consists of a series of moving images accompanied by a sound that forms a unity and carries a variety of messages so that the learning objective is obtained stored by the recording process on tape or disk (Suryani & Nadia, 2022). Animated learning video is preferred because of its appearance and sound, so respondents can easily understand the information in it and feel happy when the transfer of science takes place (Dayutiani & Fitrianna, 2021).

Research on the knowledge level of SADARI shows that there is an increase in points on the average knowledge score of respondents before and after receiving intervention with the WhatsApp media, it makes sense if the use of WhatsApp during the Corona pandemic is effective in improving knowledge and practice of SANDARI (Fauziah dkk., 2022). In line with research that shows if educational information provided with Instagram is effective increases knowledge about SADARI in teenagers (E. R. Dewi & Nihayani, 2021).

SMA IT Bina Umat has a total of 194 students. Researchers conducted a preliminary study on SADARI using a questionnaire to 60 santriwati, obtained results 37 santrivati not knowing what SADARI is and 23 santriyati have heard a glimpse of SADARI but have not done so, there are 3 santrivatis with a family history of breast cancer. Besides, santriwati is not allowed to carry mobile phones so that the lack of exposure of information related to SADARI is possible. Puskesmas Moyudan in the last year has implemented programmes related to eye examination, fogging of hemorrhagic fever, water checks, and socialization of healthy food to canteen officials, but programmes around reproductive health especially related to SADARI have not been carried out.

METHOD

Research using Experimental Quasi with design nonequivalent with control group design. There are two groups in this study: experimental groups and control groups. Experimental groups will be given demonstrations while control groups will receive animated videos. The population in this study is the entire teenage daughter at IT High School Bina Umat Yogyakarta a total of 194 santriwati. The samples in this study are from classes X, XI, XII of Yogyakarta's Umat Bina IT High Schools taken with the proportionate stratified random sampling technique. The variable instrument is bound to collect data in this study using the knowledge questionnaire SADARI (Periksa Payudara Sendiri). The questionnaire consists of three parts: part A contains the identity of the respondent (name, age, class) and part B contains characteristics of the responders and part C contains questions about the knowledge of the test, which covers the understanding, the purpose of the examination, the timing of the exam, and how to perform the test. The questionnaires used in this study are closed questions with a total of 15 questions. The free variable instruments in this study used breast dolls used for demonstration methods and animated video related knowledge of SADARI

(Self Breast Examination) taken from Promkes Directorate and PM Kemenkes RI. Data collection was conducted from March 17, 2023, to April 4, 2023. Data analysis tested using Wilcoxon, and Mann-Whitney.

RESULT

Table 1. Frequency Distribution Based on Respondents

Experimental Group Characteristics			
		N	%
Age	15	4	11.4
	16	14	40
	17	12	34.3
	18	5	14.3
Class	X,XI, XII IPA	18	51.4
	X,XI, XII IPS	17	48.6
Family history of breast cancer	No	2	5.7
	There's no	33	94.3
Total		35	100.0

Control Group Characteristics			
		N	%
Age	15	4	11.4
	16	17	48.6
	17	7	20
	18	7	20
Class	X,XI,XII IPA	18	51.4
	X,XI,XII IPS	17	48.6
Family history of breast cancer	No	1	2.9
	There's no	34	97.1
Total		35	100.0

Table 1 shows that the majority of respondents in the experimental and control groups were 16 years old and had no family history of breast cancer.

Table 2. SADARI Knowledge Before and After Demonstration in Experimental and Control Groups

Groups		N	Mean	Z	P - Value
Experiment	Pretest	35	76.38	-5.189	0.000
	Post test	35	91.24		
Control	Pretest	35	73.91	-5.119	0.000
	Post test	35	87.62		

Table 2 shows that the Wilcoxon test in the experimental group obtained p value = 0.000 and in the control group obtained p value = 0.000

Table 3. Differences in common knowledge between the experimental group and the control group

Variabel	Groups	N	Mean Rank	Z	P Value
Knowledge	Experiment	35	40.70	-2.237	0.025
	Control	35	30.30		

Table 3 shows that the Mann Whitney test in the experimental and control groups after the intervention obtained p value=0.025

DISCUSSION

Characteristics of respondents from the results of the study is known that all respondents are teenage girls from the age range of 15-18 years as well as from the classes X, XI, XII IPA and IPS. In the treatment and control group equally dominated by santrivati with the age of 16. The sample of this study is in the upper secondary school age called the madya adolescent stage. (middle adolescence). According to Chulani and Gordon in (M. Dewi & Ulfah, 2021) mentions that adolescents at this stage are at the age of 14-18 years. Teenage girls at that age are already in puberty, so it is necessary to have knowledge of the female reproductive organs about the breasts to prevent the occurrence of abnormalities or diseases in the breast. High school-age children want to know a variety of information, especially about SADARI, because of its benefits in early detection of breast cancer. Providing health education with demonstration methods and video animation is an interesting and appropriate thing to do to improve the knowledge of SADARI in the santrivati, because the santrivati have more time spent in school. In addition, teenage girls who have a family history of breast cancer are at the same risk of exposure, then the SADARI (Self Breast Examination) related diagnosis in high school-age girls corresponds to the characteristics of 14-18-year-olds who have already experienced puberty and have a sense of desire for information.

Information given to adolescents will be easier to understand because adolescents tend to have a high desire for knowledge. The older a person is, the better his mindset will be, and the easier it will be to capture information because as he grows older, the more his mind will develop, and his capability will develop. Even a study says that if adolescents have the capacity to acquire and use knowledge effectively because of brain growth that achieves perfection (Mahri & wandi, 2022).

Santrivati knowledge of SADARI between health education with demonstration methods and animated video. As a result of the research, there was a difference in the level of knowledge of Santrivati before and after being given SADARI health education with demonstration methods. According to (Notoatmodjo, 2018) knowledge is the result of a person's perception of an object through the senses that they possess (vision, hearing, smell, sense, and perception). Respondents in this study are at the basic level of knowledge (know) because if they are in the research process, respondents can remember what they have learned proven by answering post-test questionnaires better than before. It is as mentioned by Notoatmodjo (2014) which states that know is the lowest level. Knowledge at this level is recalling what has been learned before and the ability of knowledge at this stage one can describe, mention, define, or state. One's knowledge is different. This can be influenced by factors such as experience, education, beliefs, facilities, income/economy, and social culture (Hutagulung, 2021), Hasil penelitian sejalan dengan penelitian yang menyebutkan bahwa metode demonstrasi dapat menambah pengetahuan pada siswi (Nurhayati, 2022).

Demonstration is one of the methods used to enhance knowledge. Exact demonstration is used because it is easy to explain various types of explanations to respondents because the language used is more restricted, can avoid verbalism, as well as help respondents in clearly understanding the progress of a process with attention because more interesting (Bando & Elihami, 2021). This is appropriate to the situation when the research is in progress that can attract the attention of respondents to pay attention to what is being explained through the demonstration, and respondents become more active in the process of discussion or when asking questions that may not be understood.

After being given health education with the method of demonstration santrivati know how the way of its examination is proved by the measures - SADARI practiced jointly - equally by the whole santrivati in the class. In addition, Santrivati learned that after the end of menstruation a woman should perform SADARI at least once a month for early detection of breast cancer. It is in line with the theory mentioned by Krisdianto, (2019) that SEDARI can be performed at the time of 7 - 10 days after the first day of menstruation and is recommended once a month.

The results of the study based on analysis obtained the average value of the experimental group using the demonstration method greater than the average of the control group using animated video (40.70 > 30.30) with the average difference of 10.40. So, from the analysis that has been done it can be said that both methods of demonstration and video animation can improve the knowledge of santrivati related to SADARI, but the results of the analysis of the post test of the two groups showed there are significant differences and can be stated that the demonstration method is more influential than the animation video in improving knowledge of SADARI santrivati.

The reason why the demonstration method is more influential than the animated video media may be because the santrivati who watch animated videos are more focused on animated images alone without the presence of sufficiently clear measures as well as the weakness of the animation video played with continuous playback duration can cause less respondent capture. Demonstration methods can train the santrivati to remember movements that have been observed in person and can be practiced or adjusted respectively after the study takes place.

The results of the study showed that there was an improvement in students' knowledge before and after the demonstration intervention (Nurhayati, 2022). The demonstration method has several advantages, among them: 1) Makes the teaching clearer and more concrete, which ultimately avoids verbalism (understanding in sentences or words), 2) It is easier to understand what is learned, 3) The teaching process becomes more interesting, because the subject can see what is being observed and not just listen, 4) The subject is encouraged to observe carefully, so that it can compare the theory with reality. (Wulandari & Pudjawan, 2018).

According to Sustiyono (2015), the level of effectiveness of the video playback method is still considered less effective when compared to the demonstration because the object displayed from the video playing method does not have a real effect overall but only a real but indirect object so that the understanding of the audience can be minimal in understanding the object being described so that if in using this method is less accurate then it will have a less beneficial impact. But videos can also present messages in the form of facts (news, important events/events) or fictitious (such as stories) which can be educational, informative, or intuitive. Video can depict a moving object accompanied by a natural sound or corresponding sound. Videos can explain information, processes, complex concepts, and will influence attitudes (Pertiwi dkk., 2020).

CONCLUSION

There is a difference between the method of demonstration and video animation to the improvement of santrivati knowledge about SADARI so that it can be said that the demonstration method has more influence on the increase of knowledge about santrivati related to SADARI than with animated video. Appropriate demonstration methods are used to provide skill, reduce the use of monotonous language, and help the child to make it easier to clearly understand a process or activity because it is presented as a provision so that it is more interesting and efficient. Making the teaching clearer and more concrete and concentrating the attention of the students as well as better directing the learning process of the learners on the materials they are studying.

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REFERENCES

- Bando, U. D. M. A., & Elihami, E. (2021). Pengaruh Metode Demonstrasi Terhadap Pembelajaran Fiqh Di Pesantren Melalui Konsep Pendidikan Nonformal. *Jurnal Edukasi Nonformal*, 2(1), 81–90.
- Dayutiani, G. S., & Fitrianna, A. Y. (2021). Analisis Keefektifan Video Pembelajaran Sebagai Media Pembelajaran Matematika Pada. 4(6), 1723– 1730. <https://doi.org/10.22460/jpmi.v4i6.1723-1730>
- Dewi, E. R., & Nihayani, L. (2021). Efektivitas Instagram Dalam Meningkatkan Pengetahuan Sadari Sebagai Pencegahan Dini Kanker Payudara. *Prepotif: Jurnal Kesehatan Masyarakat*, 5(1), 344–352. <https://doi.org/10.31004/prepotif.v5i1.1568>
- Dewi, M., & Ulfah, M. (2021). *Buku Ajar Remaja dan Pranikah untuk Mahasiswa Profesi Bidan*. Universitas Brawijaya Press.
- Fauziah, A. N., Maesaroh, S., & Suparti, S. (2022). Efektivitas Penyuluhan Berbasis Whatsapp Terhadap Pengetahuan dan Praktek SADARI Saat Pandemi Corona. *Jurnal Formil (Forum Ilmiah) Kesmas Respasi*, 7(1), 25. <https://doi.org/10.35842/formil.v7i1.417>
- Heryani, H., Kusumawaty, J., Gunawan, A., & Samrotul, D. (2020). Efektivitas Leaflet terhadap Peningkatan Keterampilan tentang Pemeriksaan Payudara Sendiri (SADARI) pada Remaja Putri di Pondok Pesantren Ar-Risalah Kabupaten Ciamis. *Jurnal Ilmu dan Teknologi Kesehatan*, 11(1), 21–25. <https://doi.org/10.33666/jitk.v11i1.237>
- Hutagulung, M. S. (2021). *Pengetahuan, Sikap, dan Tindakan Stroke dan Tentang Hipertensi Sebagai Faktor Risiko Stroke: Panduan Lengkap Stroke*. Nusamedia. Kementerian Kesehatan Republik Indonesia. (2016). *Enam Langkah SADARI untuk Deteksi Dini Kanker Payudara—*

- Direktorat P2PTM. <https://p2ptm.kemkes.go.id/tag/enam-langkah-sadari-untuk-deteksi-dini-kanker-payudara>
- Kementerian Kesehatan RI. (2019). *Penyakit Kanker di Indonesia Berada Pada Urutan 8 di Asia Tenggara dan Urutan 23 di Asia – P2P Kemenkes RI*. <http://p2p.kemkes.go.id/penyakit-kanker-di-indonesia-berada-pada-urutan-8-di-asia-tenggara-dan-urutan-23-di-asia/>
- Krisdianto, B. F. (2019). *Deteksi Dini Kanker Payudara dengan Pemeriksaan Payudara Sendiri (SADARI). Dalam Andalas University Press.*
- Lestari, Y., & Attamimi, H. R. (2022). Sosialisasi SADARI Sebagai Langkah Awal Pencegahan Kanker Payudara Pada Remaja Putri SMA Sekabupaten Sumbawa. *Jurnal Pengabdian Kepada Masyarakat Indonesia (JPKMI)*, 2(2), Article 2. <https://doi.org/10.55606/jpkmi.v2i2.279>
- Mahri, M. M., & wandi, wandi. (2022). Pengaruh Media Video Animasi Terhadap Pengetahuan Tentang Perawatan Organ Reproduksi Pada Remaja Putri: di SMP Al-Irsyad Al-Islamiyah Malang. *Jurnal Pendidikan Teknologi Informasi (JUKANTI)*, 5(2), 324–332. <https://doi.org/10.37792/jukanti.v5i2.580>
- Notoatmodjo, S. (2014). *Promosi Kesehatan dan Perilaku Kesehatan* (revisi). Rineka Cipta.
- Notoatmodjo, S. (2018). *Metodologi Penelitian Kesehatan*. Rineka Cipta.
- Nurhayati, P. (2022). Pendidikan Kesehatan Demonstrasi Sebagai Metode Untuk Meningkatkan Pengetahuan Sadari Siswi Sman 2 Banguntapan Bantul. *Jurnal Penelitian Keperawatan*, 8(2), 142–145. <https://doi.org/10.32660/jpk.v8i2.623>
- Nurhayati, P., Isnaeni, Y., & Hartiningsih, S. N. (2021). *Jurnal Penelitian SADARI Perawat Profesional.pdf. Peningkatan Pengetahuan SADARI Melalui Pendidikan Kesehatan Menggunakan Video*, 3, 741–748.
- Pertiwi, L., Ruspita, R., & Anitasari, C. D. (2020). Pengaruh Pemberian Penyuluhan Kesehatan Dengan Metode Ceramah dan Video Terhadap Pengetahuan Remaja Tentang Seks Bebas Pada Siswa Kelas X di SMK Negeri 6 Pekanbaru. *Al-Insyirah Midwifery: Jurnal Ilmu Kebidanan (Journal of Midwifery Sciences)*, 9(2), 60–67. <https://doi.org/10.35328/kebidanan.v9i2.367>
- Profil Kesehatan Kabupaten Sleman 2019*. (t.t.). Diambil 16 Desember 2022, dari <https://www.google.com/search?client=firefox-b-d&q=profil+kesehatan+kabupaten+sleman+2019> *Profil Kesehatan Kabupaten Sleman Tahun 2020*. (2020). 6.
- Suryani, S., & Nadia, N. (2022). Peran Media Video Animasi Dalam Meningkatkan Pengetahuan Gizi Ibu Hamil. *Dalam Nursing Care and Health Technology Journal (NCHAT)* (Vol. 2, Nomor 1, hlm. 37–47). <https://doi.org/10.56742/nchat.v2i1.34>
- Sustiyono, A. (2015). Kajian Literatur: Perbedaan Efektifitas Metode Demonstrasi dan Pemutaran Video Terhadap Pengetahuan dan Sikap. *Jurnal Kesehatan STIKes IMC Bintaro*, 1(1), Article 1.
- The Global Cancer Observatory. (2021). *Indonesia Source Globocan 2020*.
- World Health Organization (WHO). (2021). *Kanker payudara*. https://www-who.int.translate.goog/news-room/fact-sheets/detail/breastcancer?_x_tr_sl=auto&_x_tr_tl=id&_x_tr_hl=id
- Wulandari, N. M. A., & Pudjawan, K. (2018). Penerapan Metode Demonstrasi Melalui Kegiatan Meronce Untuk Meningkatkan Perkembangan Motorik Halus Pada Anak Kelompok B1 TK Kartika VII-3 Singaraja. *Jurnal Ilmiah Pendidikan Profesi Guru*, 1(3), Article 3. <https://doi.org/10.23887/jippg.v1i3.16455>