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## Studies Comparison of Health Promotion between Leaflets with Videos on Knowledge about Cancer Breast

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### Abstract

This study aims to determine the ratio of health promotion to knowledge about breast Cancer and breasts Cancer early detection skills (BE AWARE) in adolescent girls at Jatiling Jambi Health Polytechnic Year 2016. This type of research is quasi experimental with non-randomized pre-test-post-test group design. Instruments used are Instruments test knowledge about breast cancer and test instruments BSE skills. Data analysis was performed multivariate (MANOVA) and paired samples T-Test and independent samples T-Test. The results of the study were (1) there was a difference in knowledge about breast cancer between the groups that were given health promotion using leaflets with the group that was given health promotion using video, video media is better and gives more dominant influence to the knowledge aspects of breast cancer. Differences in breast cancer early detection skills (BSE) between health-promoted groups used leaflets and health-promoted groups used better videos media and more dominant influence on aspect of girls' breasts self-examination. Based on the results of the study, it was concluded that the use of videos US a media of health promotion is better than the use of leaflets to increase knowledge about breasts cancer and girls skills in early detection of breast cancer, so educators can make the video as an alternatives tools in providing learning to students.

Keywords: Health Promotion; Knowledge; Skills.

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## INTRODUCTION

Cancer is disease which very feared public Because often cause death. Every 11 minute there is one person resident world which die of cancer, every 3 minutes there is a new cancer sufferer. One of nine woman in countries proceed suffer cancer. Data inspection histopathology in indonesia in 1999 stated that the top five cancers were: cervical cancer, breast cancer, lymph node cancer, skin cancer and cancer rectum. Whereas on woman, order top five is cancer neck womb, cancer breast, cancer ovaries eggs/ovaries, cancer skin and cancer rectum (Rasyidi, 2009). Based on Hospital Information System (SIRS) data 2005, the number 1 cancer sufferer in Indonesia are breast cancer (28.4%) and 2nd place is cervical cancer (18%) while SIRS 2007 is the number of sufferers cancer 1 still breast cancer (21.69%) and in second place is neck cancer uterus (17%) (Rasyidi, 2009).

The high death rate due to breast cancer/tumors, especially in Indonesia caused by, among

other things, low public knowledge about the dangers cancer, signs early from cancer, factors risk caught cancer, method deal with it properly and get used to a healthy lifestyle. Not a little from they which caught cancer, come treatment to place Which Wrong And new check it out self to means service health when the stadium Already carry on so that cost treatment more expensive. See data Therefore, comprehensive management includes primary prevention and Early detection must be implemented well, so early detection efforts are needed tumor/cancer breast.

Data Which collected Foundation Health Breast Jakarta mention Lots breast cancer sufferers at a relatively young age and breast tumors attack quite a few fourteen year old girls (Hospital Information System, 2007). According to Aziz et al. (2009) says basically, breast cancer can found in a way early with BE AWARE (Inspection Breast Alone). BE AWARE is inspection Which done on breast for know change which happen on breast that alone. Objective from inspection breast itself is to detect early if there is a lump in the breast, especially Which suspected malignant, so that can lower number death. BSE is very important to recommend to the public because almost 86% of lumps occur in breast found by the sufferer himself. Method this need mastered And done by teenager daughter so that can do early detection of breast cancer. One effort to increase knowledge And Skills BE AWARE teenager is through exercise BE AWARE, in matter this Breast self-examination (BSE) is effective in the adolescent stage, Because on limitation age the is moment Which appropriate For start carry out preventive efforts for early detection of mammary fibroadenoma disease (FAM) And Cancer Mammae. Promotion health in school added with appropriate promotional methods in implementation and absorption is strategic steps in efforts to improve the level of public health p This is based on the idea that schools are institutions that were deliberately established to develop and improve the quality of human resources, both physical and mental as well as spiritual.

Limited access information Which accurate believed become Wrong One reason high number of breast cancer cases in Indonesia. Another cause of high cancer cases breast is Because minimal awareness For do detection early. As a result, the majority of breast cancer cases that are discovered have already been admitted on stadium carry on And can causing death. Matter This supported also by studies introduction which done writer on date March 19 2015. The author got the results from questions and answers to 10 people 2nd semester students, 7 of whom said they had never heard of it about BSE, 3 more people said they had heard of it but didn't know How method Which Correct in do BE AWARE the, And moment interviewed No anyone from 10 student Once get counseling about cancer breast And BE AWARE as detection early cancer breast previously.

Therefore, there needs to be an effort to increase knowledge and awareness woman so that more role active follow program screening cancer breast. Wrong the only one is with giving information with promotion health about the dangers of breast cancer and the importance of screening for women especially young women in efforts to detect breast cancer early. As is effort the expected knowledge And awareness teenager daughter can increase and can actively participate in breast cancer screening programs for self alone and also for public wide. Based on information case cancer with incident highest on Woman with cancer breast, so need exists effort detection early cancer/tumor breast on student Major Midwifery. On level This student is a young woman at risk of being affected cancer breast.

Promotion health on in essence is something activity or business convey message health to public, group, or individual, with hope that with exists message the, so public, groups or individuals can gain knowledge about health more Good. Knowledge the on Finally expected can influential towards behavior. In other words, with health promotion, expected can bring consequence to change behavior from target. Health promotion is also a process where the process has input (input) and output (output). In a health education process which leads to achieving promotional goals, namely changing behavior, is influenced by many factors. Factors that influence an educational process besides factor input Alone Also factor method, factor material or the message, educator or officer Which do it, And tool help or media Which used for convey message (Notoatmodjo, 2010:284).

Health promotion media are all means or efforts to display message or information that the communicator wants to convey. Health promotion cannot be separated from the media because through

the media, messages are conveyed can be more interesting and understandable, so that the target can learn more about the message until you decide to adopt the behavior the positive. There are many health promotion media that can be used, one of which is audio visual. Audio-visual media is a type of media that, in addition to containing sound elements Also contain element picture Which can seen, like recording videos, various film sizes, sound slides and so on (Notoatmodjo, 2010:70). Wrong One media promotion health other is leaflets. Leaflet is form delivery information or message – message health through sheet Which folded. The information content can be in the form of sentences or images or a combination (Notoatmodjo, 2007:69). Information through leaflet media is part of media education health that is something business For help individual, groups or communities in improving their abilities (behavior) to reach health optimal. Health promotion in schools or educational institutions is supplemented by methods proper promotion in implementation and absorption is step Which strategic in effort enhancement degrees health public matter This is based on the idea that schools are institutions that are deliberately established for build And increase quality source Power man Good physique mentally as well as spiritual. Schools or educational institutions are also container for get information and counseling about Health Reproduction Teenager.

## RESEARCH METHODS

This type of research is a quasi-experimental design non-randomized pre-test-post-test group design. In this research composition young women or students in both groups, which has been selected in study impossible to be changed, Where Researchers use existing classes, so this research is referred to as experimental research pseudo (quasi) or called Also Quasi-experiments. The sampling selection method in the research used total sampling, namely sample selection method when all members of the population are used as sampling. There are two classes of second semester students at the Jambi Department of Health Polytechnic of the Ministry of Health Midwifery. These two classes were chosen as research samples without looking is the amount is the same or different. The samples for this are: all over student semester II Health Polytechnic Ministry of Health Major Midwifery year teachings 2015/2016, which amount 60 person. Technique And tool collection data Which used For measure level The knowledge of young women/students in this study is primary data obtained by dividing questionnaires, while instruments or tools measure to measure the skills of young women/students in examinations own breasts (BSE) using instruments/measuring tools in the form of a check list For evaluate attitude And show off Work student. Done analysis Multivariate (MANOVA) and test paired sample T-Test and independent sample T-Test for find out the difference between health promotion using video media and leaflets as well as change to knowledge about cancer breast And Skills inspection breast Alone (BE AWARE). Previously done assumption classic with method do test normality And homogeneity with SPSS help.

## RESULTS AND DISCUSSION

Results pre-test and posttest from class I And class II For aspect knowledge can be seen as in

Table 1 Average Pretest and Posttest Knowledge to Cancer Breast

Class	Media	Amount Student	Average	
			Pretest	Posttest
I	Leaflet	30	56.0	66.7
II	Videos	30	54.0	75.7

The average results of the pretest and posttest for BSE skills can be seen like on table 2.

Table 2. Average Pretest and Skills Posttest BE AWARE

Class	Media	Amount Student	Average	
			Pretest	Posttest
I	Leaflet	30	6.9	67.0

II	Videos	30	6.6	74.7
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Table 3 Normality Data Knowledge and Skills BE AWARE

Class	Media	Amount Student	Mark Significance			
			Knowledge		Skills BE AWARE	
			Pretest	Posttest	Pretest	Posttest
I	Leaflet	30	0.187	0.774	0.280	0.165
II	Videos	30	0.565	0.580	0.080	0.653

From Table 4.3 is known that good in the classroom I nor II own mark the significance of the assessment of BSE knowledge and skills is  $> 0.05$ . It means, all data taken is normally distributed and can be used for needs statistic test.

Table 4. Test Homogeneity

Variable	F count	F table	Significance
		(df1 = 1; df2 = 58)	
Knowledge	2,883	4,007	0.095
Skills BE AWARE	2,563		0.115

Is known that  $F_{\text{count}}$  For second variable  $< F_{\text{table}}$  so that variable BSE knowledge and skills are homogeneous. This can also be seen from the significance value of both variables is greater than 0.05 (sig.  $> 0.05$ ) so second variable homogeneous.

Table 5. Test Difference Average Pretest-Posttest

Variables/Media	t count	t table (df = 29)	Significance
Knowledge/Leaflets	2,936		0.006
Knowledge/Videos	8,344	2,045	0,000
Skills AWARE/Leaflet	21,465		0,000
Skills REALIZE/Video	24,737		0,000

Based on test difference average pretest-posttest is known that there is difference average between before and after use media leaflets and videos on BSE knowledge and skills. This is visible from the calculated t value for each variable and class that is greater than the table t value (df = 30-1 = 29) which is 2.045. This difference can also be seen from the value The significance of each variable and class is less than 0.05 (sig.  $< 0.05$ ). So it can be concluded that in each class, there is an influence use media Good leaflets and videos to results Study student (knowledge And Skills BE AWARE).

Table 6 Test Multivariate

Variable	Mark Significance
Knowledge	0.008
Skills BE AWARE	0.037

Based on test Multivariate on Table 6, is known that there is influence between use media to knowledge And Skills BSE is proven by the significance value of the knowledge variable ( $Y_1$ ) of 0.008 And variable Skills BE AWARE ( $Y_2$ ) as big as 0.037. Because second marksignificance  $< 0.05$  so can with drawn conclusion that there is influence use of media on cancer knowledge and BSE skills teenager daughter at the Health Polytechnic Ministry of Health Jambi Department of Midwifery.

Table 7. T-test Sample Independent

Variable	Average		t count	t table (df = 58)	Significance
	Videos (Class II)	Leaflet (Class I)			
Knowledge	75.7	66.7	2,730	2,002	0.008
Skills BE AWARE	74.7	67.0	2,133		0.037

From Table 7 it appears that there is an average difference between class II which uses videos and class I which uses leaflets from each variable, Good knowledge And Skills BE AWARE Where average For class II is 75.7 while class I is only 66.7 (knowledge variable) as well as the average 74.7 for class II and 67.0 for class I (BSE skills variable). Level significance from knowledge aspect And Skills that is consecutive 0.008 and 0.037 (significance < 0.05) which proves that both media treatments provide a significant difference to knowledge and skills student. From table in on, prove that average knowledge And Student skills are much higher if they use video as media tool help Study. Besides that, from mark t count which obtained For variable knowledge 2,730 and skills 2,133 ( $t_{\text{count}} > t_{\text{table}}$ ) which proves that media videos own influence Which more Good to knowledge And REALIZE skills.

### 1. Difference Knowledge about Cancer Breast between Student Which Use Media Leaflet with Videos.

There is difference between giving promotion health with use leaflet media and those using video media were determined through the t test for class I and II (independent sample t test) after previously carrying out the Manova test And seen that media influence knowledge student Health Polytechnic Ministry of Health Jambi Major Midwifery. From results test t sample independent is known that there is difference average knowledge student which taught use media leaflets with which use media videos with significance as big as 0.008 (< 0.05). From average is known that posttest which conducted for class I (using leaflet media) had an average of 66.7 for aspect knowledge to cancer breast. Temporary that, for class II (use media videos) own average 75.7. By direct can It is known that the average for class II is much higher than class I, namely for aspect knowledge about cancer breast with difference average class II to class I amounted to 9 or go on as big as 13.5%.

Apart from being seen from the average difference, the difference can also be seen through the tcount value for aspect knowledge, that is mark tcount is 2,730. Mark the more the size of the ttable value for  $df = 30 + 30 - 2 = 58$  is 2.002 so it can be taken conclusion that there is an average difference between the use of video media by using leaflet media. Because the tcount value is positive, the influence is more leads to media videos, or with say other media videos more Good And provide a more dominant influence on the knowledge aspect of cancer student breasts Ministry of Health Polytechnic Jambi Major Midwifery. This is in line with research by Kanayana (2001) which states that promotion health use media videos (VCD) can influence knowledge about the symptoms of the disease and how to detect it. Video media is because of media videos can give understanding which more Good to the audience (student) because presenting things which no can we look at generally.

Promotional media via video is a way of giving very informative good because video media can be accessed by more than one human sense, in particular hearing and vision. Because more and more senses play a role process reception message, so reception message the more fast and easy arrested. Apart from that, according to Susilana & Riyana (2011) media such as video can be used overcome the limitations of space and time. Through video media, students can invited to see the movement of cancer cells, or hear explanations from resource persons in a way direct about knowledge about cancer breast. Effect picture Moving ones will of course provide a richer learning experience compared to just a still image like in a leaflet. With the media videos in health promotion, students will quickly understand about cancer breast. Besides that, media videos also can make student focus with

promotional materials because of the movement that makes the eyes focus for seeing to direction movement compared only picture silent which tend monotonous.

## **2. Skill Differences in Early detection Cancer Breast between students Which Use Media Leaflet with Videos**

The difference in skills can be seen from the average posttest carried out for class I (use media leaflet) own average 67.0 for aspect Skills BE AWARE. Meanwhile, for class II (using video media) the average average 74.7. It can be seen directly that the class II average is much higher compared to class I, namely for aspects of adolescent girls' skills regarding BSE, The average difference between class II and class I was 7.7 or an increase of 7.7 11.5%.

Apart from being seen from the average difference, the difference can also be seen through the tcount value on aspects of BSE skills during the independent sample t test with calculated t values amounting to 2.133. This value is greater than the ttable value for  $df = 30 + 30 - 2 = 58$  namely 2.002 so it can be concluded that there is a difference in average between use media videos with use media leaflets from aspect skills. Because the tcount value is positive, the influence is more directed towards the media video compared to leaflet media, or in other words video media is better and provide a more dominant influence on aspects of BSE skills student Health Polytechnic Ministry of Health Jambi Department Midwifery. Matter this also in accordance with study which done Siburian (2015) which said that there are differences in breast cancer detection skills between those given promotional media in the form of leaflets and those given promotional media videos. In his research, Siburian explained that video media is more effective in influence aspect Skills teenager daughter than media leaflets. Siburian (2015) say that use media leaflets no capable optimizing the skills of young women in breast cancer detection because information is limited and can only be accessed by one sense, namely sight. Meanwhile, video media contains more detailed and explained information with examples in the form of moving images that students can understand follow promotion.

Media promotion health own superiority in invite and give information to respondents (students/young women) regarding breast cancer And method detect it since early. Media like leaflets and videos can affects knowledge and skills in detecting breast cancer because media the works expedite message which be delivered teachers/health promoters so that it is conveyed more clearly. No use media, so promotion health become boring and caused audience no focus so that no can get information in a way comprehensive if only conveyed verbally. Susilana & Riyana (2011) explain that utility media is as tool help For convey information so that more clear understood, overcome limitations sense man, as well as serve information with more interesting comparison only through language verbally so that it is hoped that the audience will be more focused and interested in the presentation information which given.

Leaflet media has several disadvantages when compared to video media, one of them is that leaflet media only contains images while videos Loading moving images. These differences can provide different information also for some people, especially in the explanation of detection steps early/BE AWARE. In the picture in the leaflet, only steps are shown with guidance form picture which sometimes difficult for understood audience. However, this become easy understood if use media videos because in videos example in a way direct so that audience direct understand. Susilana & Riyana (2011) say that function media other is as tool the realization of a phenomenon/event that cannot be seen directly because certain limitations. Activities such as early breast examination/more BSE easy understood if direct see practice compared only see pieces picture just.

Video media is also more flexible in providing explanations of concepts material and details Skills certain because videos usually direct describe information through illustration. Besides that media videos also can presenting source person which of course understand about material and certain skills so that the explanation from the resource person can be directly understood by the audience. The explanation presented in the video is more complete and complete than on leaflets, remembering that leaflets have limited space and quantity images that create less text/writing. Overall media Videos can provide a better learning experience than leaflet media. However no means media leaflets no can give

influence to knowledge and skills BE AWARE. Various media own excess it has its own advantages so it is good to use as long as it fits the context and conditions in the field.

## CONCLUSION

Based on results study And discussion in study this, so can summed up general that there are differences in knowledge about breast cancer among students Which given promotion health use media leaflets compared to with those using video media where the average student score is Which use media videos more tall. With thereby can interpreted, that media videos give influence Which more dominant And more Good to aspect knowledge to cancer breast on teenager daughter in Health Polytechnic Jambi Ministry of Health Major Midwifery. There are differences in early breast cancer detection (BSE) skills between student Which given promotion health use media leaflets compared to those using video media where the average value student which use video media is higher. Therefore can interpreted, that media videos exert influence which more dominant and more Good to aspect Skills detection early cancer breast (BE AWARE) teenager daughter in Health Polytechnic Ministry of Health Jambi Major Midwifery.

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## REFERENCES

- Azis, M. Farid, (2013). Buku Acuan Untuk Dokter dan Bidan Untuk Gerakan Nasional Peduli dan Cegah Kanker Serviks, Jakarta
- Bensley. RJ & Fisher. JB, (2009). *Metode Pendidikan Kesehatan Masyarakat*, Jakarta: EGC
- Dalimartha, S. (2005). *Deteksi Dini Kanker dan Simplisia Anti Kanker*, Jakarta: Penebar Swadaya.
- Maulana, HDJ, (2009). *Promosi Kesehatan*, Jakarta: EGC
- Notoatmodjo, S. (2007). *Promosi Kesehatan dan Ilmu Perilaku*, Jakarta: Rineka Cipta
- Notoatmodjo, S. (2010). *Promosi Kesehatan Teori dan Aplikasi*, Jakarta: Rineka Cipta
- Norwitz.E & Schorge.J, (2007). *At a Glance Obstetri & Ginekologi*, Jakarta: Erlangga
- Rasyidi. I, (2009). *Deteksi Dini dam Pencegahan Kanker pada Wanita*, Jakarta: Sagung Seto
- Rasyidi. I, (2010). *Epidemiologi Kanker Pada Wanita*, Jakarta: Sagung Seto Rekam Medik RSUD Raden Mattaher 2014
- Setiati, E., (2009). *Waspadai Empat Kanker Ganas Pembunuh Wanita*, Yogyakarta : Andi Offset.
- Sugiyono. (2009). *Metode Penelitian Kuantitatif, kualitatif dan R &D*, Bandung: CV Alfabeta
- Sukardja. I. DG, (2006). *Onkologi Klinik*, Surabaya: Airlangga University Press
- Syafrudin, Fratidhita.Y, (2009). *Promosi Kesehatan Untuk Mahasiswa Kebidanan*, Jakarta: Trans Info Medika
- Shorea.R,Agrina,Woferst.R, (2013). *Efektifitas Promosi Kesehatan Melalui Audio Visual Tentang Pemeriksaan Payudara Sendiri (Sadari) Terhadap PeningkatanPengetahuan Remaja Putri*,
- Siburian, U.D. (2015). *Pengaruh Media Leaflet dan Media Video terhadap Pengetahuan dan Sikap Mahasiswa dalam Upaya Deteksi Dini Kanker Payudara di Akademi Keperawatan Pemerintah Kabupaten Tapanuli Utara tahun 2015*. Tesis. Medan: Program Pascasarjana Universitas Sumatera Utara.
- Sulastri ,Thaha.RM, Russeng.SS, (2012). *Pengaruh Penyuluhan Kesehatan Menggunakan Video Dalam Pemeriksaan Payudara Sendiri (Sadari) Terhadap Perubahan Pengetahuan Dan Sikap Remaja Putri Di Sman 9 Balikpapan Tahun 2012*.
- Susilana, R., Riyana, C. (2011). *Media Pembelajaran. Hakikat, Pengembangan, Pemanfaatan dan Penilaian*. Bandung: Wacana Prima