EFFECT OF HEALTH EDUCATION WITH FLIP CHART AND VIDEO ON KNOWLEDGE ABOUT EARLY DETECTION OF CERVICAL CANCER IN WOMEN OF REPRODUCTIVE AGE IN NGANJUK DISTRICT, EAST JAVA

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ABSTRACT

Background: Cervical cancer is the fourth most prevalent cancer in women. Pap smear and visual inspection acetic acid (VIA) are essential screening tests to early detect cervical cancer. However, the use of screening tests remained low among women of reproductive age in Nganjuk district, East Java. This study aimed to determine the effectiveness of health education using flip chart and video on knowledge about early detection of cervical cancer among women of reproductive age in Nganjuk district, East Java.

Subjects and Method: A randomized control trial conducted in Rejoso, Nganjuk, East Java, from October to November 2019. A sample of 120 women of reproductive age was randomized into two groups: (1) Experiment group that received health education using a flip chart and video, and (2) Control group that received no intervention. The dependent variable was knowledge of early detection of cervical cancer. The independent variable was health education using a flip chart and video. The data were collected using questionnaire. The data were analyzed by independent t-test.

Results: After the intervention, knowledge about early detection of cervical cancer in the experimental group (Mean= 80.40; SD= 10.54) was higher than the control group (Mean= 70.53; SD= 9.68), and it was statistically significant (p <0.001).

Conclusion: Health education using a flip chart and video is effective in improving knowledge about early detection of cervical cancer among women of reproductive age.

Keywords: early detection, cervical cancer, health education, women of reproductive age

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BACKGROUND

Cervical cancer accounts for 10% of all cancer deaths in women. The annual incidence rate was more stable in women aged less than 50 years and decreases by 3.0% per year in women aged 50 years or over (Siegel, 2016). Based on Riskesdas data, the prevalence of tumours/ cancer in Indonesia increased from 1.4 per 1,000 in 2013 to 1.79 per 1,000 in 2018. With an average death rate of 13.9 per 100,000 population (Ministry of Health RI, 2015).

Cervical cancer can be detected by the IVA method (Visual Inspection with Acetic Acid) and the pap smear. In 2016, 7,013 (90%) out of 88,135 women tested for IVA in East Java showed positive results (Office Health East Java Provincial, 2017).

The most common cervical cancer symptoms are bleeding between menstrual periods or abnormal vaginal bleeding, unusual vaginal discharge, pain during sexual intercourse, bleeding after sexual intercourse, increased urination frequency, and drastic weight loss.

Risk factors for cervical cancer are multiple partners, having sexual intercourse at an early age (<20 years), prolonged use of

oral contraceptive pills, increased parity, and early labor age. Cervical cancer prevention and control depend on the disease's awareness, early detection procedures, and preventive measures. Early detection of cervical cancer is crucial as many women often experience no symptoms until the disease has progressed to an advanced stage (Kalpana et al., 2020).

Approximately 85% of cervical cancer cases are reported from less developed areas due to late detection and treatment. The other factor is community knowledge about cervical cancer is still very low. Therefore, awareness to do early detection of cervical cancer is also low. Diagnosis of cancer from early-stage and receive early treatment have the chance of recovery 80 to 90% (Sharma et al., 2017).

Therefore, promoting public knowledge about cervical cancer and the importance of early detection is needed. Knowledge is fundamental for the formation of one's actions (over behavior). An action based on knowledge will be more effective than action without knowledge (Erenoglu and Sozbir, 2020).

Health education can improve knowledge. One of the ways to delivering health education effectively is using media attraction. Among the media used are flip charts and videos (Luque et al., 2017).

This study aimed to determine the effectiveness of health education using flip charts and videos on knowledge about early detection of cervical cancer among women of reproductive age in Nganjuk district, East Java.

SUBJECTS AND METHOD

1. Study Design
This was a quasi-experimental with pre-test and post-test control group design conducted at Rejoso, Nganjuk, East Java, from October to November 2019.

2. Population and Sample
A sample of 120 women of reproductive age was collected into two groups: (1) Experiment group that received health education using a flip charts and videos, and (2) Control group that received no intervention.

3. Study Variables
The dependent variable was knowledge of early detection of cervical cancer. The independent variable was health education using flip charts and videos.

4. Operational Definition of Variables
Health education with flip chart and video was delivering health education about early detection of cancer in summaries, schemes, pictures, and tables that were opened sequentially, neatly arranged based on learning topics, and using a live image recording or a motion picture display with sound. Categorical measurement scale: 0= with conventional media (lecture) and 1= with flip chart and video.

Knowledge of cervical cancer in women of reproductive age was the ability to answer a questionnaire on early detection of cervical cancer. Categorical measurement scale: 0= sufficient knowledge (score <70) and 1= good knowledge (value ≥70).

5. Data Analysis
Before the statistical test was carried out, a data normality test was carried out using the Kolmogorov-Smirnov test. Bivariate analysis was conducted using paired t-test and independent t-test.

RESULTS

Table 1 showed that subjects on intervention group had average knowledge of early detection of cervical cancer = 68.80 (SD= 12.31; SE= 1.72) in pre intervention and 80.40 (SD= 10.54; SE= 1.36) post intervention. Subjects on control group had average knowledge of early detection of cervical cancer = 68.73 (SD= 13.26; SE= 1.71) in pre

intervention and 70.53 (SD= 9.68; SE= 1.25) in post intervention.

Table 2 showed that there was no significant difference in mean knowledge about early detection of cervical cancer between intervention (Mean= 68.80; SD= 12.31) and control (Mean= 68.73; SD= 13.26) groups before intervention, (p= 0.570). After intervention, mean knowledge about early detection of cervical cancer in intervention group (Mean= 80.40; SD= 10.54) was higher than control group (Mean= 70.53; SD= 9.68), but it was not statistically significant (p= 0.515).

Table 1. Description of knowledge of women at fertile age before and after being given health education about early detection of cervical cancer

Groups	n	Mean	SD	SE
Pre-test intervention	60	68.80	12.31	1.72
Post-test intervention	60	80.40	10.54	1.36
Pre-test control	60	68.73	13.26	1.71
Post-test control	60	70.53	9.68	1.25

Table 2. Results of independent t-test on difference in mean of knowledge about early detection of cervical cancer between intervention and control groups in both pre intervention and post intervention

Knowledge	Mean	SD	p
Pre intervention			
Intervention	68.80	12.31	0.570
Control	68.73	13.26	
Post intervention			
Intervention	80.40	10.54	0.515
Control	70.53	9.68	

DISCUSSION

This study showed the difference in mean of knowledge between the intervention and control groups after being given health education about early detection of cervical cancer using flipchart and video, but it was not statistically significant. This study was in accordance with Sugiarsi (2011) statement that there were differences in knowledge of cervical cancer early detection before and after being given health education in the group of mothers.

Ekajayanti (2019) cited in Nirmawana and Pulungan, health education increased women's knowledge about cervical cancer. Health education about early detection of cervical cancer aimed to provide information to women about the understanding of cervical cancer, causative factors, cervical cancer symptoms, and how to detect cervical cancer early.

Haryoko (2012) stated that health education using audiovisual media is better than learning through conventional approaches (lectures). Health education about cervical cancer early detection using media flip charts and video affects increasing knowledge about cervical cancer.

Video is the most effective medium compared to other media such as graphics, audio, etc. The use of video will provide new experiences (Fadhli, 2015). While the flip chart is a medium for delivering messages or health information in the form of pages contained an image. The reverse page contains a sentence as a message or information related to the image (Nugrahaeni, 2018). This study's media flip chart contains information on early detection of cervical cancer

supported by several pictures taken from several sources.

Outreach on cervical cancer early detection using media flip chart and video made the materials easier to absorb. The information presented was attractive and easy to understand to increase knowledge and suppose the public understands the importance of early detection of cervical cancer. In that case, cervical cancer can be detected as early as possible, and treatment can be done as early as possible to decrease cervical cancer deaths.

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