

The Effect Of Cervical Cancer Education Videos And Iva Examinations On The Knowledge And Attitudes Women Of Reproductive Age

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ABSTRAK

Kanker serviks merupakan penyebab kematian kedua terbanyak pada wanita secara global, dengan angka kejadian dan mortalitas yang tinggi di negara berkembang, termasuk Indonesia. Cakupan deteksi dini yang rendah, seringkali di bawah lima persen, menyebabkan banyak kasus terdiagnosis pada stadium lanjut. Masalah utama yang teridentifikasi adalah rendahnya pengetahuan dan sikap positif Wanita Usia Subur (WUS) terhadap deteksi dini kanker serviks melalui pemeriksaan Inspeksi Visual dengan Asam Asetat (IVA). Penelitian ini bertujuan untuk mengetahui pengaruh video edukasi kanker serviks dan pemeriksaan IVA terhadap peningkatan pengetahuan dan sikap wanita usia subur di wilayah kerja Puskesmas Gerunggang tahun 2025. Metode penelitian yang digunakan adalah kuantitatif dengan desain quasi eksperimen one group pretest-posttest. Populasi penelitian adalah wanita usia subur sebanyak 205 orang, dengan sampel sebanyak 32 orang wanita usia subur yang dipilih menggunakan teknik purposive sampling. Pengumpulan data dilakukan melalui kuesioner sebelum dan sesudah video edukasi diberikan. Analisis data menggunakan uji-t sampel berpasangan. Hasil penelitian menunjukkan peningkatan skor pengetahuan wanita usia subur yang signifikan, dari rata-rata 90,09 menjadi 90,72 ($p = 0,000$). Demikian pula, skor sikap wanita usia subur meningkat dari rata-rata 76,12 menjadi 89,88 ($p = 0,000$). Kesimpulan penelitian ini adalah video edukasi berpengaruh signifikan terhadap peningkatan pengetahuan dan pembentukan sikap positif wanita usia subur terhadap skrining IVA. Oleh karena itu, Puskesmas Gerunggang disarankan untuk rutin menggunakan media audiovisual ini dalam program edukasi deteksi dini kanker serviks.

Kata Kunci: Sikap, Kanker Serviks, Video Edukasi, Pemeriksaan IVA, Pengetahuan

ABSTRACT

Cervical cancer is the second leading cause of death in women globally, with high incidence and mortality rates in developing countries, including Indonesia. Low coverage of early detection, often below five percent, causes many cases to be diagnosed at an advanced stage. The main problem identified is the lack of knowledge and positive attitudes of Women of Childbearing Age (WUS) towards early detection of cervical cancer through Visual Inspection with Acetic Acid (IVA) examination. This study aims to determine the effect of cervical cancer educational videos and IVA examinations on improving the knowledge and attitudes of women of childbearing age in the Gerunggang Community Health Center working area in 2025. The research method used is quantitative with a quasi-experimental design of one-group pretest-posttest. The study population was 205 women of childbearing age, with a sample of 32 women of childbearing age selected using a purposive sampling technique. Data were collected through questionnaires before and after the educational video was given. Data analysis used a paired sample t-test. The results showed a significant increase in women of childbearing age knowledge scores, from an average of 90.09 to 90.72 ($p = 0.000$). Similarly, the attitude score of women of childbearing age increased from an average of 76.12 to 89.88 ($p = 0.000$). The conclusion of this study is that the educational video significantly influenced the increase in knowledge and the formation of positive attitudes among women of childbearing age towards IVA screening. Therefore, the Gerunggang Community Health Center is recommended to routinely use this audiovisual media in its cervical cancer early detection education program.

Keywords: Attitude, Cervical Cancer, Educational Video, IVA Examination, Knowledge

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INTRODUCTION

Cervical cancer is a serious global health problem, ranking second as the leading cause of death in women after breast cancer. In developed countries, this cancer accounts for approximately 7% of all cancer cases in women, while in developing countries the figure jumps to 24%. In 2018, there were an estimated 570,000 new cases with a death toll of 311,365 globally ((Global Cancer Statistic, 2018), 2018). Specific data on cervical cancer incidence by country for 2021 is difficult to find because global reports are typically released every few years. However, according to GLOBOCAN 2020 data from the International Agency for Research on Cancer (IARC), some of the countries with the highest number of new cases include India (123,907), China (109,741), Indonesia (36,633), Brazil (31,556), and Nigeria (27,928). Continued improvement of prevention and early detection efforts is crucial, especially in countries with a high cervical cancer burden (Faizah, 2023).

According to 2022 data from the World Health Organization (WHO), approximately 662,301 cases of cervical cancer were diagnosed in women worldwide, and approximately 350,000 women died from the disease. In 2023, 490,000 women were diagnosed with cervical cancer, 80% of whom were in developing countries, including Indonesia. A 2024 report stated that cervical cancer is the most common disease among women of childbearing age globally, with approximately 660,000 new cases (94%) and 350,000 deaths annually. The highest incidence and mortality rates occur in low- and middle-income developing countries, such as Sub-Saharan Africa (SSA), Central America, and Southeast Asia. Nearly all cases of cervical cancer (99.7%) are caused by Human Papillomavirus (HPV) infection of the cervix. Information from the Unified Countries Program on HIV and AIDS (UNAIDS) also recorded 1,300,000 people infected with HIV in 2022, and approximately 630,000 people died from AIDS.

In Indonesia, the 2023 Indonesian Health Survey showed a cancer prevalence of 1.2 per thousand, or approximately 3,175 patients. Cervical cancer ranks second as the most common type of cancer among women in Indonesia, with approximately 40,000 new cases annually. In 2023, the Ministry of Health also launched a National Action Plan for cervical cancer elimination as part of efforts to accelerate global cervical cancer elimination.

Based on data from the Bangka Belitung Provincial Health Office, the number of women experiencing reproductive health problems related to cervical cancer (including HPV) was 21,218 people (21.3%) in 2020, 20,654 people (20.7%) in 2021, 22,892 people (22.9%) in 2022, and 21,771 people (21.8%) in 2023. Meanwhile, IVA Test examination data showed 477 people (47.7%) in 2022, 504 people (50.4%) in 2023, but decreased to 332 people (33.2%) in 2024 (Bangka Belitung Provincial Health Office, 2024). Data from the Pangkalpinang City Health Office in 2024 showed that only a few WUS participated in the IVA examination from the government at the Gerunggang Community Health Center. Of the target of 3,954 people, only 879 underwent IVA examination screening in 2024, 743 in 2023, and 323 in 2022. This is due to the reluctance of many women of childbearing age to undergo VIA screening. Data from the Gerunggang Community Health Center (Puskesmas Gerunggang) shows that the number of

women of childbearing age who underwent IVA examination screening was 581 (58.1%) in 2022, 783 (78.3%) in 2023, and 205 (20.5%) in 2024 (Puskesmas Gerunggang, 2024).

Early detection programs for cervical cancer using IVA examination or Pap smears have been shown to reduce the incidence of cervical cancer by 34-80% and reduce mortality from it in developing countries (Kurt & Akyuz, 2019). Early detection of cervical cancer using the IVA test method is part of the Ministry of Health's 2020-2024 strategic plan (Ministry of Health of the Republic of Indonesia, 2020). Regulation of the Minister of Health of the Republic of Indonesia Number 34 of 2015 concerning the Management of Breast and Cervical Cancer explains that breast and cervical cancer management in public health services includes promotive and preventive activities (Pangkal Pinang City Health Office, 2024).

Significant differences in cervical cancer incidence and mortality rates are evident between developed and developing countries. More than 85% of new cases and 80% of deaths occur in low- and middle-income countries. Conversely, high-income countries have seen a gradual decline in cases and deaths, thanks to robust screening programs and supporting infrastructure. The regions with the highest incidence and mortality rates are in Sub-Saharan Africa and Southeast Asia (Bray F et al., 2019). Vaccination and early detection can prevent cervical cancer. Early detection can slow the progression of the disease, one method being the Visual Inspection with Acetic Acid (VIA) test. The IVA test is an inexpensive, practical, easy-to-perform alternative to the Pap smear, requiring no sophisticated equipment, and can be performed by healthcare professionals other than gynecologists (Nasiah, 2021).

Factors preventing women of childbearing age from undergoing early cervical cancer screening with the IVA test include internal factors (women of childbearing age activities, opportunities, feelings, independence), external factors (family and social factors), and IVA program management (health promotion and information sources) (Suniarti et al., 2022).

Many educational methods can be used, one of which is video. Video media can explain abstract concepts with realistic and concrete images, utilizing the senses of sight and hearing, thereby increasing absorption and memory by up to 50% due to the influence of attention and object perception. Several studies have shown that video education has been shown to improve knowledge and attitudes. The use of video as a health promotion medium takes into account reach, cost comparison, impact on target groups, national program objectives, collaborative experience, effectiveness in mass learning, and overcoming distance and time constraints (Daryanto et al., 2015). This proves that audiovisual education can increase women of reproductive age motivation for early detection of cervical cancer, in contrast to leaflet media which is less effective (Wati & Tafwidhah, 2023). This study aims to provide education through video prototypes about cervical cancer and the IVA test distributed via WhatsApp, with the hope of increasing awareness and behavior of early detection, IVA examinations, and encouraging earlier treatment. The lack of awareness among women in Indonesia regarding early cervical cancer detection is

a major issue, with many cases discovered at an advanced stage because early detection coverage is still less than five percent.

METHOD

This research method uses a quantitative approach with a quasi-experimental design of one-group pretest-posttest. The population in this study were women of childbearing age registered at the Gerunggang Community Health Center, with a total population of 205 people. The research sample was taken as many as 32 women of childbearing age using a purposive sampling technique, namely the selection of samples based on certain criteria relevant to the research objectives. The research location was carried out at the Gerunggang Community Health Center, Pangkalpinang City, from January to March 2025. The instrument used to collect data was a questionnaire consisting of questions regarding the knowledge and attitudes of women of childbearing age towards early detection of cervical cancer before and after the educational video intervention. Data analysis was carried out using a paired sample t-test to compare differences in knowledge and attitude scores of women of childbearing age before and after the education, after first ensuring data normality with the Kolmogorov-Smirnov test.

FINDING AND DISCUSSION

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Table 1. Paired T-Test Results of Knowledge and Attitude Before and After Cervical Cancer Education Video and IVA Examination

No	Variables	Average before experiment	Average after experiment	Average difference	<i>p-value</i>
1	Knowledge	90,09	90,72	-0,63	0,000
2	Attitude	76,12	89,88	-13,76	0,000

Based on Table 1, there was a significant difference between pre- and post-intervention scores for both variables, namely knowledge and attitude ($p < 0.05$). The test results showed a significant difference between knowledge scores before and after the intervention, with an average score difference of -0.63 and a p value of 0.000, which is smaller than the significance level of $\alpha = 0.05$. This indicates that H_0 is rejected, namely, there is an effect of the cervical cancer educational video and the VIA examination on the knowledge of women of childbearing age in the Gerunggang Community Health Center work area in 2025. The intervention in the form of an educational video had a positive effect on increasing the knowledge of women of childbearing age about early detection of cervical cancer through the VIA method.

For the attitude variable, the test results also showed a significant difference, with an average score difference of -13.76 and a p value of 0.000 ($p < 0.05$). This shows that H_0 is rejected, namely there is an influence of educational videos on cervical cancer and IVA examinations on the attitudes of women of

childbearing age in the Gerunggang Community Health Center work area in 2025. This indicates that the attitude of women of childbearing age towards IVA examinations has increased significantly after being given education. Thus, these results indicate that providing educational videos about cervical cancer and IVA examinations is effective in increasing knowledge and forming more positive attitudes in women of childbearing age in facing and undergoing early detection of cervical cancer.

The study results showed a significant increase in the average knowledge and attitudes of women of childbearing age after being exposed to educational videos about cervical cancer and Visual Inspection with Acetic Acid. Before the intervention, the average knowledge score for women was 90.09, while after the intervention, it increased to 90.72. This increase indicates that the educational video was effective in increasing women's understanding of the importance of early cervical cancer detection. Previous research by Iasminiantari et al. (2021) also found that the use of audiovisual media in health education can increase women's knowledge and motivation to undergo early cervical cancer detection.

women of childbearing age attitudes toward IVA screening also significantly improved, from an average of 76.12 before the intervention to 89.88 after the intervention. This indicates that the educational video not only increased knowledge but also positively influenced women's attitudes toward IVA screening. Research by Wati and Tafwidhah (2023) supports these findings, reporting that education delivered using a visual approach can change individual attitudes toward health prevention measures.

The importance of early cervical cancer detection through the IVA test cannot be underestimated, considering that cervical cancer is one of the leading causes of death in women. According to data from the Indonesian Ministry of Health (2020), early detection can reduce the incidence of cervical cancer by 34-80%. Therefore, efforts to improve the knowledge and attitudes of women of childbearing age through effective education are essential.

Educational videos as a learning medium have the advantage of conveying complex information in a more engaging and easy-to-understand manner. Daryanto et al. (2015) stated that the use of videos in health promotion can increase information absorption by up to 50% because it engages the senses of sight and hearing. This aligns with the results of this study, where women who received education through videos showed significant improvements in their knowledge and attitudes.

Furthermore, factors influencing the success of education also need to be considered. Suniarti et al. (2022) identified that internal and external factors, such as family support and the social environment, play a significant role in women's decisions to undergo IVA testing. Therefore, educational videos distributed through easily accessible platforms, such as WhatsApp, can reach more women of childbearing age and increase their participation in early cervical cancer detection.

The involvement of health workers in providing education is also crucial. According to research by Kurt and Akyuz (2019), trained health workers can provide more accurate information and support

women in making decisions about screening. Therefore, training health workers in the use of educational media such as videos can increase the effectiveness of cervical cancer early detection programs.

Furthermore, ongoing evaluation of implemented education programs is crucial. Research by Faizah (2023) emphasizes that evaluation can help identify strengths and weaknesses in a program and provide input for future improvements. Thus, educational programs can be continuously refined to achieve better results.

Ultimately, this study makes an important contribution to efforts to increase awareness and participation of women of childbearing age in early cervical cancer detection. With improved knowledge and attitudes, it is hoped that more women will be willing to undergo routine IVA screening. This aligns with the national goal of reducing cervical cancer mortality in Indonesia, which is part of a broader public health effort.

CONCLUSIONS

The conclusion of this study shows that educational videos about cervical cancer and Visual Inspection with Acetic Acid (VIA) examination significantly improved the knowledge and attitudes of women of childbearing age at the Gerunggang Community Health Center. The increase in the average knowledge score from 90.09 to 90.72 and the attitude score from 76.12 to 89.88 indicates the effectiveness of audiovisual media in conveying health information. Therefore, it is recommended that Community Health Centers and other health institutions continue to develop educational programs that utilize videos as a health promotion tool. In addition, it is important to involve health workers in providing education and support to women of childbearing age, as well as conducting regular evaluations of the programs that have been implemented to ensure sustainability and effectiveness in raising awareness of the importance of early detection of cervical cancer. With these steps, it is hoped that the participation of women of childbearing age in VIA examinations can increase, thereby reducing the incidence and mortality from cervical cancer in Indonesia.

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