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THE EFFECT OF CERVICAL CANCER COUNSELING ON CERVICAL CANCER PREVENTION BEHAVIOR IN WOMEN OF CHILDBEARING AGE: A LITERATURE STUDY

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ABSTRACT

Background: : According to World Health Organization (WHO) data, cervical cancer is the second leading cause of death worldwide . In 2020 the worldwide burden of cervical cancer is significant, there are an estimated 604,000 new infections and 342,000 deaths in 2020. Based on Riskesdas data, the prevalence of tumor/cancer, especially cervical cancer, in Indonesia ranks second with 36,633 cases, accounting for 9.2% of all cancer cases. Effective interventions at various life stages could significantly reduce global mortality from cervical cancer. **Objective:** This study was conducted to examine the impact of cervical cancer counseling on cervical cancer prevention behavior in women of reproductive age. **Methods:** Conducting a literature review of previous journal articles related to the effects of cervical cancer counseling on cervical cancer prevention behavior in women of childbearing age. **Results:** The results of this study indicate that cervical cancer is a significant reproductive health issue in Indonesia due to low screening coverage and lack of knowledge, resulting in late diagnosis. However, education and counseling can play a vital role in increasing awareness and promoting preventive behavior towards cervical cancer. **Conclusion:** Education and counseling interventions can effectively increase awareness and promote preventive behavior, this promotive and preventive behavior greatly reduces the burden of cervical cancer.
Keywords: *Cervical Cancer, Counseling, Women of Childbearing, Health Education*

INTRODUCTION

Cervical cancer is a type of cancer that affects the cervix and is the second leading cause of death among women globally, following breast cancer. It is also the primary cause of death for women in developing nations[1]. Cervical cancer is a malignant disease that develops in the cervix and is one of the leading causes of death in women. The cause of cervical cancer is a chronic Human Papilloma Virus (HPV) infection is believed to be the cause of cervical cancer. HPV (human papillomavirus) is primarily transmitted through sexual intercourse and has been detected in 95% of cervical cancer cases[2].

Cervical cancer is often termed the "silent cancer" due to its elusive nature in detection, making it challenging to identify upon occurrence. The progression from viral infection to cancer is a protracted process, spanning up to 10-20 years for the disease to evolve from its initial viral infection.

Cervical cancer represents a significant global burden, with an estimated 604,000 new infections and 342,000 deaths expected in 2020, with 90% of these cases occurring in low- and middle-income countries. Women living with HIV encounter a significantly heightened risk, facing a six-fold escalation in the probability of developing cervical cancer. Notably, impactful measures like HPV vaccination and routine screening are accessible in high-income countries, yet equitable access remains constrained in low- and middle-income nations, resulting in cervical cancer often evading detection until an advanced stage is reached. The dearth of accessible cancer treatment compounds the situation, contributing to elevated mortality rates stemming from cervical cancer within these regions. The strategic implementation of potent interventions across various life stages holds the potential to substantively curtail the global mortality rate associated with cervical cancer[3].

The high prevalence of cancer in Indonesia is an issue of great concern, with an increase in prevalence from 1.4 to 1.79 per 1000 population between 2013 and 2018 according to Riskesdas data. Data from the Globocan study shows a total of 396,914 cancer cases and 234,511 deaths in Indonesia in 2020, with cervical cancer ranking second at 9.2% of total cancer cases. These statistics serve as a reminder of the need to take preventative measures and minimize risk factors associated with cancer. It is important to

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prioritize regular check-ups and adopt a healthy lifestyle to reduce the risk of developing cancer[4].

Cervical cancer is one of the biggest reproductive health issues among Indonesian women[5]. The Indonesian government has made various efforts to decrease the morbidity and mortality rates associated with cervical cancer. These efforts include early detection of cervical cancer in women aged 30 to 50 years and the use of acetic acid (IVA) visual examination for early detection in women of childbearing age, as stipulated in the Republic of Indonesia Minister of Health Decree No. 34 of 2015 on Prevention of Breast and Cervical Cancer. According to the Health Profile Data of DIY Province in 2017, the highest rates of early detection of cervical cancer were found in the city of Yogyakarta, while the lowest rates were found in the city of Bantul. The important role of midwives in reducing cervical cancer morbidity and mortality is also emphasized in the Republic of Indonesia Minister of Health Decree No. 34 of 2015, which outlines health promotion activities, screening, and early detection training[6].

Cervical cancer can be prevented and detected early, which can help reduce mortality and morbidity rates associated with this disease. However, despite prevention efforts, the number of women with cervical cancer tends to increase. Several factors can influence women's behavior in preventing, detecting, and treating cervical cancer. One of these factors is the level of understanding that women have about cervical cancer, financial status, availability of health facilities and personnel, and cultural and religious beliefs. Addressing these factors by increasing awareness, improving access to affordable healthcare, and promoting education and prevention measures can help reducing the burden of cervical cancer on women's health[7].

In Estonia, a research conducted by Kivistik, Lang, Baili, Anttila, and Veerus indicated that Estonian women have minimal knowledge about cervical cancer and the factors that contribute to it. As a result, they are less likely to participate in screening programs. The study concluded that Estonian women require more detailed information about cervical cancer, the risk factors associated with it, and the screening programs available[8].

The high rate of cancer-related mortality in Indonesia is partially attributed to the public's limited knowledge about cancer, including its dangers, early signs, risk factors, and the importance of a healthy lifestyle. Many individuals affected by cancer seek treatment in inappropriate facilities and only present themselves to healthcare facilities at advanced stages of the disease, resulting in increased treatment costs.

Public knowledge and awareness of reproductive health, especially women, is still considered insufficient. So far, health advice for people living in rural areas has also been considered inadequate. Providing reproductive health information about cervical cancer and screening through health education can be an effective approach to reduce mortality, particularly among women.

Health education in the context of cervical cancer prevention is of great importance. Because the more information and knowledge about cervical cancer, especially women of childbearing age, the more likely they are to get tested early to avoid delays under treatment[9].

The objective of this literature review was to conduct a comprehensive and systematic analysis of previous studies focusing on the effects of counseling on cervical cancer prevention behavior in women who are of reproductive age. The review provides valuable insights into the effectiveness of counseling in improving cervical cancer prevention behavior in this population. It offers important information for researchers, healthcare professionals, and the general public regarding the significance of cervical cancer counseling in prevention efforts. The review also provides recommendations for the development of more effective cervical cancer counseling programs that cater to the specific needs of women of childbearing age.

ETIOLOGY OF CERVICAL CANCER

Cervical cancer is an invasive cancerous growth that occurs in the cervix, which is the lower part of the uterus attached to the top of the vagina. The primary cause of cervical cancer is an infection with the sexually transmitted human papillomavirus (HPV). Women can become infected with the virus in their teens and find out they have cancer only 20 to 30 years after a cancer infection spreads (usually in middle-aged women around age 40). detected only in females)[10].

Cervical cancer was once a leading cause of cancer death among American women, but the use of

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the Pap test significantly decreased its death rate. Recently, the HPV test has also been approved as another screening test for cervical cancer since most cases are caused by HPV. Cervical cancer is detected in women aged 35 to 44 years, with an average age of diagnosis being 50 years. Cases are rare in women under 20 years old, but more than 20% of cases occur in women over 65 years who do not regularly undergo cervical cancer screening. However, with regular screening, the risk of developing cervical cancer can be significantly reduced[11,12].

Cervical cancer is a cancerous growth that occurs in the cells of the cervix, which is the lower part of the uterus that connects to the vagina. The primary cause of most cervical cancer cases is the human papillomavirus (HPV), which is a sexually transmitted infection that leads to alterations in cervical cells, ultimately causing cancer. Additionally, risk factors for cervical cancer include smoking, a compromised immune system, and prolonged use of oral contraceptives[13].

HPV is a common virus that can be transmitted through sexual contact. Various strains of human papillomavirus (HPV) exist, and certain strains are more likely to cause cancer than others.High-risk HPV types, such as HPV 16 and 18, are responsible for most cases of cervical cancer. HPV infection is very common, but most women who are infected with the virus do not develop cervical cancer. However, if an HPV infection persists and causes changes in the cervical cells, cervical cancer can develop[14].

Women who smoke are at a higher risk of developing cervical cancer compared to those who do not smoke. The risk is doubled in women who smoke, making smoking another significant risk factor for cervical cancer.Smoking damages the DNA of cervical cells, making them more likely to become cancerous. In addition, smoking weakens the immune system, which can make it harder for the body to fight off HPV infections and other infections that can cause cervical cancer[15].

Women who have weakened immune systems, including those who have HIV/AIDS or who have undergone organ transplants, are at a higher risk of developing cervical cancer. The immune system plays an important role in fighting infections, including HPV. If the immune system is weakened, it may be less effective in fighting off HPV infections and other infections that can cause cervical cancer[13].

Prolonged use of oral contraceptives can be a contributing factor to an increased risk of cervical cancer. Women who have taken oral contraceptives for 5 years or more have a higher risk of developing cervical cancer than those who have not taken them. However, this risk returns to normal levels after discontinuing the pills[12].

To detect abnormal cervical cells before they develop into cancer, it is recommended to undergo regular cervical cancer screening. The Pap test, which involves collecting cells from the cervix and examining them under a microscope, is the most widely used screening method for cervical cancer. Additionally, HPV testing can be used as a screening tool to detect high-risk types of HPV that can cause cervical cancer[15].

CHARACTERISTICS OF CERVICAL CANCER

Cervical cancer is often asymptomatic in its early stages, regular cervical cancer screening is very important. As the cancer progresses, symptoms such as abnormal vaginal bleeding, painful intercourse, and pelvic pain may occur. Advanced cervical cancer may also cause weight loss, fatigue, and swollen legs. If cervical cancer is suspected, further tests such as a biopsy or imaging may be done to confirm the diagnosis[16,17].

Cervical cancer is classified into different stages based on the size of the tumor and how it spreads. Stage 0 cervical cancer is also called carcinoma in situ, which means the abnormal cells are still in the surface layer of the cervix and have not spread. Stages I to IV describe the size and extent of the tumor, with Stage IV being the most advanced stage. The stage of cervical cancer affects the treatment options and prognosis[18].

Cervical cancer treatment can involve a range of approaches, such as surgery, radiation therapy, chemotherapy, or a combination of these. The course of treatment is determined by several factors, including the patient's age, overall health, and cancer stage. The aim of treatment can be either curative or palliative, with the latter focused on managing symptoms and improving the patient's quality of life[12,19].

PREVENTION OF CERVICAL CANCER

Cervical cancer is one of the biggest reproductive health issues among Indonesian women[5]. The high

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morbidity and mortality of cervical cancer is due to the fact that stages 0, 1 and 2 cervical cancer are asymptomatic and more than 70% of patients have advanced stages. There is a lack of knowledge and information about cervical cancer, andearly detection (screening) is inadequate. Based on 1985 estimates (Trans-Hudson Port Authority/PATH 2000), only 5% of access to testing services is limited for women in developing countries, compared to 40% in developed countries[20].

Knowledge is actually the basis for acting or behaving right or wrong in preventing or overcoming a disease. With good knowledge, a person will have a positive attitude towards something and will determine the actions that need to be taken including efforts to behave to avoid things that are detrimental to health. Someone who has the right knowledge and understanding of cervical cancer, efforts can be made to prevent cervical cancer by avoiding risk factors or conditions that increase the likelihood of developing the disease, recognizing the signs and symptoms of cervical cancer, and learning how to conduct early detection, avoiding smoking behavior or exposure to cigarettes, not choosing oral contraceptives (pills) in birth control, doing early detection, vaccinate against HPV[21].

The research aims to explore the connection between knowledge and attitudes of women of childbearing age regarding early cervical cancer detection using IVA at Pare Primary Health Center in Kranggan District, Temanggung. As global cancer rates rise, factors such as women's knowledge, attitudes, and examination behavior are implicated in cervical cancer incidence. Despite the Central Java target of 10%, only 5.34% of women in Temanggung Regency underwent IVA examination. Employing a cross-sectional approach, the study involved 37 participants assessed through a questionnaire. The majority demonstrated good knowledge (62.2%), and optimism about early detection (51.4%) prevailed. Statistical analysis, using the Chi Square test, revealed a significant relationship (P = 0.000) between knowledge levels and attitudes towards early cervical cancer detection in the Pare Health Center's working area. This underscores the interconnectedness of knowledge and attitudes, contributing to the understanding of factors influencing screening behavior among women of childbearing age[40].

If communities had the knowledge and access to appropriate information about cervical cancer and how to prevent it, it can certainly lead to a positive attitude to do early detection of cervical cancer, this is because a person's knowledge will affect his psychology and behavior[20]. A study in Congo by Risasi et al. We found that a cross-sectional study was conducted in Kinshasa, Democratic Republic of the Congo, to assess women's knowledge, attitudes and practices (KAP) about cervical cancer and to identify relevant factors. The study found that women in Kinshasa had low KAP cervical cancer scores, with only 9% of participants having had a Pap smear. Good knowledge of cervical cancer was positively associated with higher education and formal employment, but negatively associated with being single and living in the eastern, western and northern regions of Kinshasa. Attitude and practice were also associated with certain demographic factors. The study highlights the need to increase awareness and practice related to cervical cancer in Kinshasa and provides important information for planning screening and intervention programs[22].

In 2022, a study in Assosa Zone, Benishangul-Gumuz, Ethiopia, aimed to evaluate cervical cancer knowledge and screening rates among reproductive-age women, a pertinent health concern in Ethiopia particularly affecting those aged 15 to 44. Despite efforts in health promotion and screening within the context of universal healthcare transition, baseline data on cervical cancer awareness and screening remain scarce. Employing a facility-based cross-sectional design, 213 women were sampled from healthcare institutions, with data collected via a validated questionnaire and analyzed using multilogistic regression. Findings revealed that 53.5% possessed knowledge about cervical cancer screening, but only 36% had undergone screening. Factors influencing knowledge encompassed family history, residence, and health service accessibility, while factors linked to screening were education, personal connections to cervical cancer, knowledge level, and perceived risk. The study underscores the need for robust awareness campaigns to encourage early screening, emphasizing susceptibility and promoting regular screenings for timely detection[37].

Nurdjanah's research in 2016 aimed to assess how educating women of reproductive age in Yogyakarta about cervical cancer can affect their motivation to

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undergo screening using the IVA method and found significant differences in motivation levels before and after education. Cervical cancer education was found to have a positive impact on women's motivation to undergo IVA screening, underscoring the importance of awareness and education campaigns in increasing screening rates and preventing advanced-stage disease[23].

Motivation holds a pivotal role in cervical cancer education and early detection. Research underscores the challenge in achieving the acetic acid visual inspection (IVA) target due to insufficient education among women of reproductive age (WUS) about cervical cancer. The study aimed to gauge the impact of educational videos on early cervical cancer detection and WUS' motivation for IVA examinations in East Jakarta's Susukan area. Conducted from May to June 2023, using a quasi-experimental design, the research involved 30 subjects selected via the Lameshow formula. Pre- and post-provision of cervical cancer animation education, assessed through a 20-question questionnaire and paired T-test, revealed a notable increase in WUS motivation for IVA examination ($p = 0.007$) post-video provision, with a motivation score rise of 6.37. The efficacy of animated videos in enhancing WUS interest in IVA examination highlights their effectiveness compared to pocket books, showcasing motivation's potential to drive participation in such screenings[39]. Education plays a significant role in promoting health awareness and has a direct impact on behavior. This is probably related to acquired knowledge and health education.

Research conducted by Purwono and Sari in 2017 entitled "The Effectiveness of Health Counseling on Maternal Knowledge About Cervical Cancer" obtained the results to determine the effectiveness of health education on maternal knowledge of cervical cancer screening using the Inspeksi Visual Asam Asetat (IVA) method. The study was conducted in Iringmulyo, Metro Timur, Indonesia, and involved 35 mothers. As a result, the knowledge level of the respondents before the education program was 59.23, while after the program, it increased to 80.77, and the paired sample t-test revealed a significant difference (p-value= $0.000 < 0.05$). The study concluded that health education is effective in increasing knowledge about early detection using IVA techniques. These results highlight the importance of health education to raise awareness and knowledge of cervical cancer screening to prevent end-stage disease[24].

Highlighting the pivotal role of education, this research uncovers that cervical cancer cases rank second after breast cancer among women in the DIY region, with 80% of cases being diagnosed at advanced stages. To address this concern, a comprehensive approach involving education and screening is proposed. The method entails partnering with stakeholders, informative sessions, Visual Inspection with Acetic Acid (IVA) screenings, as well as coordination with healthcare centers. Research outcomes spotlight an elevation in participant knowledge post-education, notably revealing that out of 50 participants, 30 underwent IVA examinations with no malignancy detected. This underscores the substantial impact of educational endeavors in enhancing awareness, shaping attitudes, and promoting IVA screenings to combat cervical cancer[38].

A study was conducted to assess the effect of counseling on knowledge acquisition related to cervical cancer by Romadhoni, Noor Yazid, and Dian Aviyanti provided results to determine the effectiveness of counseling in enhancing cervical cancer knowledge among high school students in Semarang, Indonesia. As a result, it was found that there were no respondents who had no knowledge about cervical cancer before the consultation, but 83.7% had sufficient knowledge after the consultation. A paired t-test showed a significant difference in pre- and post-consultation knowledge. The research emphasizes the significance of health education in enhancing awareness about cervical cancer among Indonesian youth and decreasing the prevalence of cervical cancer[25].

A study by Aprilyta and Dwihesti on the effects of counseling on cervical cancer prevention behavior on interest in undergoing acetate screening (IVA) in Jadan Tamantirto Bantul Hamlet, 2017. Shows the impact of Visual Asam Asetat (IVA) screening for women of childbearing potential in Jadan Turntilt Hamlet. The study found that women's interest in IVA screening before counseling was low, with a mean score of 65.64, but significantly increased after counseling, with a mean score of 86.66. The Wilcoxon test showed a significant difference between the interest level before and after counseling (p value = 0.000). Therefore, the study concluded that

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counseling had a positive impact on the interest of women in IVA screening, and suggested that women should undergo at least one IVA examination per year as a form of cervical cancer prevention[26].

Indah et al.'s study evaluated the improvement of knowledge through a pre- and post-test. The research aimed to promote the IVA examination as an alternative to Pap smear and reduce the morbidity and mortality of cervical cancer. The participants of the study were married mothers who were sexually active and menstruating in Batu Aji Village, Batam City. The counseling and examination activities included providing knowledge about cervical cancer and the IVA examination and conducting the IVA examinationKnowledge assessment was conducted by pre-test and post-test. The study showed that after the consultation, his correct knowledge about cervical cancer increased by 81.6%, and the participant was able to have her IVA test and get immediate results. This conclusion suggests that community services in the form of counseling and research are important in increasing maternal knowledge the study focused on assessing the effectiveness of counseling in promoting awareness and understanding of both cervical cancer prevention and reproductive health[27].

A study conducted by Vio and Novi in 2020, Health Education for Cervical Cancer Prevention in Women of Reproductive Age, Cervical Cancer Knowledge and Fertility at UPTD Puskesmas Waringin Majalengka Regency 2020 IVA-testing relationships in women with cancer (WUS) A quantitative cross-sectional design approach was used in this study, and the sample consisted of 90 WUS and 1 case comparison. Results showed that her WUS with knowledge was less likely (3.29 times) to take her IVA test exam than WUS without knowledge. The study suggested that health authorities should provide easy-to-understand advice and distribute IVA testing pamphlets to WUS to increase knowledge and encourage testing[28].

The findings of the study conducted by Maharsie L and Indarwati with the title of the relationship between maternal knowledge about cervical cancer with the participation of mothers in conducting IVA tests in Jebres Surakarta Village.

The objective of this research was to examine the correlation between cervical cancer knowledge and mothers' involvement in IVA screening in Jebres Surakarta village. The method used is an analytical observational study with a cross-sectional approach. Study participants were 66 mothers aged 30 to 50 who were selected using random cluster sampling. Statistical analysis showed the study found a notable correlation between the level of cervical cancer awareness and the participation of mothers in IVA screening in Jebres Surakarta Village[29]. In a study conducted by Nonik and Novi in 2019, the association between cervical cancer knowledge and participation in VIA screening in the Kalasan district was analyzed. The study took place from March to May 2018 and utilized an analytical research approach with a cross-sectional design. The sample consisted of 350 women aged 19 to 49 who visited the Kalasan Public Health Center and met the inclusion and exclusion criteria. The majority of participants had low knowledge about cervical cancer, but were willing to undergo screening. Only 7.7% of respondents had received a VIA test in the last three years. The study concluded that knowledge plays a significant role in the early detection of cervical cancer. However, attitudes and beliefs were found to be less significant, and the lack of knowledge was identified as a major barrier to undergoing VIA testing[30].

In 2015, a study was conducted by Fatharani and Rusminingsih to examine the impact of cervical cancer counseling on the interest in Pap smear testing among mothers aged 20-60 years in Ngangkrik Triharjo Sleman Hamlet. The study found that the interest in Pap smear testing for early detection of cervical cancer was very low among women in the district. The research design was pre-experimental, with one group pre-test and post-test, and the sample included 30 participants. The analysis showed that Pap smear counseling had a positive effect on increasing the mothers' interest in Pap smear testing. Therefore, the study recommended that women in the district should increase their interest in undergoing Pap smear testing for early detection of cervical cancer[31].

Lia and Sutarni conducted a study in 2016 to determine how cervical cancer counseling impacts the motivation of women of childbearing age to undergo Inspeksi Visual Asam Asetat (IVA) testing at the Mantrijeron Health Center in Yogyakarta. This pre-experimental study utilized a one-group pretest-posttest design and involved 30 respondents who were selected through purposive sampling. The

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results showed that counseling on cervical cancer had a positive impact on the motivation of women of childbearing age to undergo IVA testing, with 86.7% of the respondents reporting high levels of motivation after counseling. The Wilcoxon matched pairs test was used for data analysis, and the results indicated a significant difference between motivation before and after counseling, with a p-value of 0.000. This study concluded that cervical cancer counseling is an effective approach in increasing the motivation of women of childbearing age to undergo IVA testing as an early screening for cervical cancer[32].

Factors that can affect the success of health education other than media are the characteristic factors of respondents consisting of age, education, and occupation[33]. In 2014, Luthfiana, Euis, and Ariyani conducted a study in the Tanjung Hulu Health Center in East Pontianak, Indonesia, to examine the factors that influence the behavior of women of childbearing age in obtaining acetic acid visual inspection (IVA) examinations for early detection of cervical cancer. The study involved 107 respondents who completed questionnaires in April 2014. Univariate, bivariate, and multivariate analyses were conducted to evaluate the data collected. The study findings showed that both exposure to information and support from health practitioners were significantly associated with women's behavior in obtaining VIA examinations. Moreover, logistic regression analysis indicated that exposure to information was the most dominant factor related to women's behavior in obtaining VIA examinations, although health practitioner's support was also significant. The study concluded that the most important factors associated with women's behavior in obtaining VIA examinations were exposure to information and support from health practitioners, with exposure to information being the most significant factor[34].

The study aimed to uncover factors linked to the use of acetic acid visual inspection (IVA) for detecting cervical cancer in women of reproductive age. Employing cross-sectional research methods, a sample of 98 reproductive-age women was selected through purposive sampling. Data collection involved questionnaires, and data analysis utilized the Chi-square test. The results highlighted significant associations between the IVA test and multiple factors: knowledge (ρ-value=0.001), husband support (ρ-value=0.000), health worker support (ρ-value=0.000), and proximity to health services (ρ-value=0.000). These factors collectively influenced the engagement of infertile women in IVA examinations. The findings underscored the importance of increasing awareness among women of childbearing age about IVA exams, while also emphasizing the role of health workers in motivating them. Thus, the study's recommendations include enhancing the knowledge of couples through health education programs and fostering motivation among women to undergo IVA examinations, contributing to early detection of cervical cancer[36].

Cervical cancer is a malignant tumor that grows inside the cervix, caused by HPV infection transmitted through sexual intercourse. This cancer has a high morbidity and mortality rate due to lack of knowledge and information about this disease, as well as low coverage of early detection. Having good access to information and knowledge about cervical cancer can result in a positive attitude towards early detection of the disease. Education plays a significant role in increasing health awareness, which in turn influences behavior positively. Health counseling both formally and informally can increase people's knowledge about cervical cancer and encourage them to take IVA tests. Studies show that health counseling is effective in increasing public knowledge about cervical cancer.

According to WHO, one strategy for changing behavior is providing information. Providing information about cervical cancer and its risks provides insights that influence people's attitudes. A positive attitude encourages women to act according to their knowledge. In this case, the woman participates in a cervical cancer screening program[35].

CONCLUSION

Cervical cancer is a significant health problem for women in Indonesia, with high morbidity and mortality rates due to late diagnosis. Lack of knowledge and information about cervical cancer and low coverage of early detection contribute to the problem. However, with good knowledge and understanding of cervical cancer, individuals can take preventive actions such as avoiding risk factors, recognizing the signs and symptoms, and undergoing early detection. Education and counseling have been shown to be effective in increasing knowledge and

motivation for screening, especially among women and young people.

Several studies have shown that education and counseling can significantly increase knowledge and motivation for screening. Cervical cancer education was found to have a positive impact on women's motivation to undergo screening using the Inspeksi Visual Asam Asetat (IVA) method. Health education is effective in increasing knowledge about early detection using the IVA method. Counseling has also been shown to increase knowledge and interest in undergoing screening, especially among young people and women. These findings emphasize the importance of awareness campaigns and health education in increasing screening rates and preventing advanced-stage disease.

ETHICAL APPROVAL

No ethical approval was required for this study.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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AUTHOR CONTRIBUTIONS

Conceptualization, original draft preparation and editing MPA; manuscript reviewing, editing and supervision, MDH.

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