

## Narrow Gap in Self-Efficacy Indicates Persistent Challenges in Women's Uptake of Early Cervical Cancer Detection

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### ABSTRACT

Cervical cancer remains a major cause of mortality among women, particularly in developing countries such as Indonesia. Despite the high incidence, the coverage of early detection or screening is still low. One contributing factor is women's lack of confidence (self-efficacy) in undergoing early detection procedures. This study aimed to identify the level of women's self-efficacy in performing early detection of cervical cancer. This study employed a descriptive design with analysis presented in the form of frequencies and proportions. A total of 115 women of reproductive age were selected using consecutive sampling. Data were collected using a structured questionnaire and analyzed using descriptive analysis, including frequency distribution and proportion. The findings showed that 53.9% of respondents had high self-efficacy, while 46.1% had low self-efficacy in performing early detection of cervical cancer. Although the majority demonstrated high self-efficacy, the difference between the two categories was relatively small, indicating that self-efficacy remains a concern. In conclusion, most women exhibited high self-efficacy in undertaking early detection of cervical cancer; however, the narrow gap with those having low self-efficacy suggests the need for further improvement. Strengthening support from healthcare providers is essential to enhance women's confidence and increase early detection coverage.

**Keywords:** cervical cancer; early detection; self-efficacy

### INTRODUCTION

Cervical cancer, also known as cancer of the uterine cervix, is a type of malignancy that arises in the cervix, which is the cylindrical and protruding lower part of the uterus attached to the upper part of the vagina [1]. This disease remains a major global health problem, particularly in developing countries, and is recognized as one of the leading causes of cancer-related mortality among women. Globally, cervical cancer ranks as the fourth most common cancer in women, reflecting its significant contribution to morbidity and mortality worldwide [2]. In Indonesia, the burden of cervical cancer is particularly high. According to Puspita as cited in Hendayani (2019), Indonesia experiences a concerning rate of cervical cancer incidence, with one new case occurring every minute and one death every two minutes due to cervical cancer [3]. This condition underscores the urgent need for strengthening preventive measures, especially early detection efforts.

Although the incidence of cervical cancer in Indonesia remains high, women's participation in early detection programs is still inadequate. The Indonesian Ministry of Health set a target of achieving 45% coverage for Visual Inspection with Acetic Acid (IVA) screening in 2022; however, the actual achievement was only 9.32% [4]. This indicates a substantial gap between national targets and real-world implementation. At the local level, similar challenges are evident. Data from the Banjar District Health Office in 2023 showed a decline in early detection coverage. The West Martapura Public Health Center recorded the lowest IVA screening achievement, with only 9 women screened out of a target population of 2,536 (0.4%). Furthermore, reports from healthcare workers in 2023 indicated that there were no participants who underwent IVA screening during that period, suggesting an even more critical decline in community engagement with screening services.

One of the key factors influencing women's willingness to participate in cervical cancer screening is self-efficacy [5]. Self-efficacy is defined as an individual's belief in their ability to perform specific tasks, achieve desired goals, and overcome potential barriers [6]. In the context of health behavior, self-efficacy plays a crucial role in shaping an individual's motivation and decision-making processes related to preventive health actions. Several previous studies have highlighted the significant role of self-efficacy in cervical cancer screening behavior. A study conducted by Winarti et al. found that self-efficacy significantly influences women's participation in IVA screening at public health centers in Kediri [7]. Similarly, research by Utami et al. demonstrated that self-efficacy has a significant effect on women's willingness to undergo IVA examinations in Sugihan Village, within the working area of Payaman Health Center in Lamongan District [5]. Furthermore, Azlina et al. reported that strong self-efficacy contributes positively to cognitive abilities and attitudes, enabling individuals to achieve targeted health behaviors [8].

According to Bandura, as cited in Winarti (2019), self-efficacy has a strong influence on individual behavior, particularly in relation to health practices and the development of a healthy mindset [7]. Individuals with higher self-efficacy are more likely to engage in proactive health behaviors, including participation in screening programs. In contrast, individuals with low self-efficacy may experience doubt, fear, or lack of motivation, which can hinder their participation in preventive health measures. This is particularly relevant in the context of cervical cancer screening, where procedures such as IVA require women to visit healthcare facilities. Unlike breast cancer screening, which can be initiated independently through breast self-examination (SADARI), cervical cancer screening requires not only awareness but also a strong sense of confidence and willingness to seek professional healthcare services [7].

Based on the existing phenomenon and findings from previous studies, it is evident that self-efficacy plays a crucial role in influencing women's participation in cervical cancer early detection. However, the relatively low screening coverage indicates that this issue remains unresolved, particularly at the community level. Therefore, this study aims to identify women's self-efficacy in performing early detection of cervical cancer in Sungai Rangas Village, West Martapura District, as an effort to better understand the underlying factors and support strategies to improve screening uptake.

### METHODS

This study employed a quantitative descriptive design aimed at providing a comprehensive overview of women's self-efficacy in performing early detection of cervical cancer. The research was conducted in June 2024 in Sungai Rangas Village, West Martapura District. The study focused on describing the level of self-efficacy among women of reproductive age in relation to cervical cancer screening practices.

The study population consisted of 153 women of reproductive age who met the inclusion criteria, namely living with their husbands and having never undergone cervical cancer early detection. The sampling technique used was consecutive sampling, where eligible respondents were

recruited sequentially during the data collection period until the required sample size was reached [9-11]. The recruitment process was conducted over two months, resulting in a total sample of 115 women of reproductive age.

The main variable in this study was self-efficacy in performing early detection of cervical cancer. Additional variables included demographic characteristics such as age, level of education, occupation, and income. Self-efficacy was measured using a structured questionnaire adapted from Azlina [8], consisting of 10 items assessing respondents' confidence in undergoing cervical cancer screening. The results of the questionnaire were categorized into levels of self-efficacy (high and low), thereby producing categorical data. In relation to this categorization, the instrument had been tested for validity using Pearson correlation, which showed that all 10 items were valid ( $\text{sig} < 0.05$ ), and reliability testing using Cronbach's alpha yielded a value of 0.806 ( $> 0.6$ ), indicating that the instrument was reliable for generating consistent categorical measurements.

Data processing was carried out through several stages, including editing, coding, data entry, and tabulation to ensure data accuracy and completeness. Data analysis was conducted using descriptive statistical methods, specifically for categorical variables, by presenting the data in the form of frequencies and percentages [12-19]. This analysis was applied to all variables to provide a clear and systematic description of the distribution of respondents' characteristics and levels of self-efficacy.

## RESULTS

Based on Table 1, the majority of respondents had an elementary school level of education (58.3%), followed by senior high school (19.1%) and junior high school (18.3%), while only a small proportion had higher education (2.6%) or no schooling (1.7%). In terms of occupation, most respondents were unemployed (63.5%), whereas 36.5% were employed. Regarding income, the vast majority of respondents (95%) had income at or below the regional minimum wage, while only 5% had income above it.

Based on Table 2, more than half of the respondents (53.9%) had high self-efficacy in performing early detection of cervical cancer, while 46.1% had low self-efficacy. Although the proportion of respondents with high self-efficacy is slightly higher, the difference between the two categories is relatively small, indicating that the distribution is nearly balanced and that low self-efficacy remains a substantial concern.

## DISCUSSION

Based on the results, the average age of respondents was 34 years. This is relevant to the epidemiological profile of cervical cancer, which is often identified starting from the age group of 25–34 years [9]. This is consistent with the study conducted by Rosdiana et al., which reported that the incidence of cervical cancer begins to increase at the age of 30–34 years, reaches its peak between 35–55 years, and continues beyond that age range [20]. These findings suggest that women of reproductive age, particularly those in their early thirties, represent a critical target group for cervical cancer prevention and early detection programs.

In terms of educational background, the univariate analysis revealed that the majority of respondents had completed only elementary school (58.3%), making it the most dominant educational category. This finding aligns with the study by Resia [21], which emphasizes that higher educational attainment does not necessarily correlate with better knowledge or behavior regarding cervical cancer early detection if it is not accompanied by adequate health information. Conversely, individuals with lower levels of formal education may still possess good knowledge if they are exposed to non-formal educational sources such as health counseling, media information, and community-based education. Furthermore, cervical cancer screening is often not included in formal education curricula, even at higher levels, which may explain why individuals with higher education do not always demonstrate better awareness or participation in early detection practices. Therefore, knowledge and awareness are influenced not only by formal education but also by access to relevant health information.

Regarding occupational status, the findings showed that the majority of respondents were not employed (63.5%). This result is supported by the study conducted by Atfa et al. [22], which found that occupational status is not significantly associated with participation in IVA screening. Work, as defined in a broader sense, refers to social activities performed by individuals within a certain time and context, either for financial compensation or as a form of responsibility without expecting rewards [23]. Thus, employment status alone may not be a determining factor in influencing women's decisions to undergo cervical cancer screening.

In terms of economic status, the majority of respondents (95%) had income below the regional minimum wage ( $< \text{Rp}3,149,977$ ). Despite this, previous studies suggest that economic status is not a primary determinant of participation in early detection programs. Surachmindari et al. [24] reported that economic status does not significantly influence individuals' decisions to undergo cervical cancer screening. Similarly, Junainah [25] found no significant relationship between economic status and participation in early detection of cervical cancer. These findings indicate that financial limitations may not necessarily hinder women from accessing screening services, especially when such services are provided free of charge or subsidized by public health programs.

The results of this study showed that a slightly higher proportion of respondents had high self-efficacy (53.9%) compared to those with low self-efficacy (46.1%). Although the majority falls into the high self-efficacy category, the difference between the two groups is relatively small, indicating that the distribution of self-efficacy among respondents is nearly balanced. This condition suggests that self-efficacy in the community is still unstable and has not yet reached a level that can strongly drive consistent preventive behavior.

Interestingly, despite the slightly higher proportion of respondents with high self-efficacy, the actual coverage of early detection in Sungai Rangas Village remains low. This finding is in line with the study by Armini [26], which reported that self-efficacy is not always directly associated with preventive behaviors related to cervical cancer. Some individuals with high self-efficacy may still not engage in preventive actions, while others with low self-efficacy may still participate in early detection efforts. This indicates that self-efficacy alone is insufficient to drive behavior without the presence of other supporting factors.

Table 1. Distribution of respondents' characteristics

Characteristics	Frequency	Percentage
Education level		
Elementary school	67	58.3
Junior high school	21	18.3
Senior high school	22	19.1
Higher education	3	2.6
No schooling	2	1.7
Occupation		
Employed	42	36.5
Unemployed	73	63.5
Income		
> Rp3,149,977	6	5
≤ Rp3,149,977	109	95
Age range (years)	Min-Max (years)	Mean (years)
15-49	19-49	34,33

Table 2. Distribution of women's self-efficacy in performing early detection of cervical cancer

Self-efficacy	Frequency	Percentage
High	62	53.9
Low	53	46.1

The nearly balanced distribution between high and low self-efficacy has important practical implications. First, it indicates that intervention strategies cannot be generalized as if most women are already confident; instead, nearly half of the population still requires targeted efforts to improve their confidence and readiness for screening. Second, the small gap suggests that self-efficacy is highly modifiable—meaning that appropriate interventions, such as education, counseling, and community engagement, could potentially shift a significant proportion of women from low to high self-efficacy.

Third, the mismatch between relatively high self-efficacy and low screening coverage implies the presence of barriers beyond individual confidence, such as limited access to services, lack of active outreach, cultural perceptions, or insufficient encouragement from healthcare providers. Therefore, programs should not only aim to increase self-efficacy but also reduce structural and social barriers that hinder action.

One important factor influencing women's participation in cervical cancer screening is support from healthcare providers. Even when individuals possess relatively high self-efficacy, the absence of encouragement, education, and facilitation from health workers may lead to low participation in screening programs. This is supported by Wigati et al. [27], who found that healthcare provider support plays a significant role in increasing women's awareness and willingness to undergo early detection of cervical cancer. Health workers act as motivators and educators who continuously remind and encourage women to participate in screening according to recommended schedules.

In addition to healthcare support, other factors such as knowledge and spousal support also play a crucial role in shaping self-efficacy. According to Anggaraeni, self-efficacy is influenced by multiple factors, including knowledge and husband's support [28]. Women who lack knowledge about cervical cancer and its early detection are less likely to develop awareness and motivation to undergo screening. Furthermore, the role of the husband is particularly important in decision-making within the household. As the closest person to the woman, the husband can significantly influence whether or not a woman decides to participate in early detection. Support from the husband can provide emotional comfort, a sense of security, and encouragement, which ultimately enhances women's readiness to undergo screening.

Overall, these findings imply that improving cervical cancer early detection coverage requires a comprehensive approach. Interventions should focus not only on strengthening self-efficacy but also on enhancing external support systems, including healthcare provider engagement, accessibility of services, health education, and family involvement.

## CONCLUSION

The findings indicate that although more women demonstrate high self-efficacy in performing early detection of cervical cancer, the proportion is nearly balanced with those who have low self-efficacy, suggesting that confidence levels in the community are still not strong enough to consistently drive screening behavior. This condition implies that self-efficacy alone is insufficient to increase participation in early detection without adequate support from external factors. Therefore, it is recommended to strengthen health education and counseling, enhance the active role of healthcare providers in outreach and motivation, and involve family support, particularly from husbands, to improve women's confidence and increase participation in cervical cancer screening programs.

## Ethical consideration, competing interest and source of funding

-Ethical considerations were maintained throughout the study. All respondents were provided with clear information regarding the purpose and procedures of the research prior to participation. Informed consent was obtained to ensure voluntary participation. Confidentiality and anonymity of respondents were strictly protected, and all collected data were used solely for research purposes. The study adhered to fundamental ethical principles, including respect for persons, beneficence, and justice.

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