

An Overview of Knowledge and Readiness for Visual Inspection with Acetic Acid (VIA) Test Among Family Welfare Movement (PKK) Members in Lemberang Village, Banyumas Regency

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ABSTRACT

Cervical cancer is the leading cause of cancer-related mortality among women, particularly in developing countries such as Indonesia. Early detection through the Visual Inspection with Acetic Acid (VIA) test serves as a crucial preventive measure. However, the low participation of women of reproductive age in VIA screening, including in Lemberang Village, indicates the need to assess the community's knowledge and readiness. This study aimed to describe the level of knowledge and readiness of Family Welfare Movement (PKK) members in Lemberang Village regarding the VIA test. A descriptive quantitative design employing a survey method was adopted. The sample consisted of 30 PKK members selected through total sampling. Data were collected using a structured questionnaire and analyzed using frequency distribution. The majority of respondents were aged 30-50 years (73.3%), had completed senior high school (66.7%), and were unemployed (70%). Knowledge of the VIA test was categorized as moderate (53.3%), while readiness for VIA test implementation was predominantly high (66.7%). Most PKK members in Lemberang Village demonstrate moderate knowledge and high readiness toward the implementation of the VIA test. Enhanced health education and social support are essential to strengthen attitudes and encourage greater participation in cervical cancer screening.

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1. INTRODUCTION

Cervical cancer is a major cause of death for women worldwide. It is the second most common cancer among women in developing countries like Indonesia. The primary cause is the Human Papillomavirus (HPV) (Acholder T Perdoman *et al.*, 2025). According to World Health Organization (WHO) data, there were approximately 660,000 new cases and approximately 350,000 deaths from cervical cancer in 2022 (WHO, 2024). The number of cervical cancer sufferers in Central Java shows an increasing trend, with 1,545 cases in 2021 and 2,440 cases in 2022, a 57.9% increase (Pemprov Jateng, 2024). According to data from the Banyumas Health Office, the number of cervical cancer cases in Banyumas from January to October 2024 was 96 cases. Women of Childbearing Age (WUS) are a group at risk of cervical cancer, namely women aged 15-49 years.

Visual Inspection with Acetic Acid (VIA) screening is prioritized for women at risk of cervical cancer such as sexual intercourse at a young age, namely under 18 years old, having multiple sexual partners, smoking, a weak immune system and a family history of cervical cancer (Eva et al., 2023).

The high incidence and mortality rate of cervical cancer in Indonesia can be prevented and detected early. One method of early detection is the VIA test, which uses 3-5% acetic acid or vinegar, which is then swabbed on the cervix (Akib et al., 2024).

The VIA test is an inexpensive, practical, and effective method, with immediate results. It's crucial to detect abnormal cervical cells early before they develop into cervical cancer. Failure to perform a VIA can result in cervical cancer being detected at an advanced stage, increasing the risk of death, and lowering treatment success rates (Kautsar et al., 2023).

According to the Indonesian Ministry of Health, over three years (2020-2022), 3,914,885 women aged 30-50, or 9.3% of the target population, underwent early cervical cancer detection using the VIA method (Kemenkes, 2022). Based on data from the Central Java Health Office as of September 2023, VIA testing coverage for women aged 30-50 reached 3.8% (Pemprov Jateng, 2024). Based on a preliminary study conducted at the Banyumas Health Office, the coverage of VIA testing until October 2024 was only implemented in 10,172 women of childbearing age out of the target of 276,505 women in Banyumas Regency. The Sokaraja II Community Health Center working area had the second-lowest coverage of early detection of VIA testing out of 40 community health centers in Banyumas, namely 70 women of childbearing age. Lemberang Village was the second-lowest in terms of VIA testing coverage, namely 6 women of childbearing age out of 829 women of childbearing age who underwent early detection during 2024.

The low rate of early detection of cervical cancer is influenced by various factors that influence individual readiness to undergo a VIA test, such as attitude, education level, knowledge, the active role of health cadres, the effectiveness of outreach, and support from family members. These factors significantly contribute to community behavior in undergoing VIA test. Family Welfare Movement (PKK) is a community organization that aims to improve community welfare, especially women. One of the PKK programs is health. In Lemberang Village, the PKK has 43 members.

The main barriers women face in seeking early cervical cancer detection include doubts about the urgency of the screening, limited knowledge, fear of pain, and embarrassment during the procedure. Low public awareness of the importance of early detection is a significant contributing factor to the high prevalence of cervical cancer in Indonesia (Sagita & Rohmawati, 2020).

Research conducted Septiyuvita Indri (2019) stated that awareness for the VIA test was still low, as many as 57 respondents (62.6%) were found to have a low level of knowledge about the VIA test, 26 respondents (28.6%) had a sufficient level of knowledge and only 8 respondents (8.8%) had good knowledge.

Considering the importance of understanding and readiness of WUS in conducting VIA test to reduce the incidence of cervical cancer, it is necessary to conduct research to determine the "An Overview Of Knowledge And Readiness For Visual Inspection With Acetic Acid (VIA) Test Among Family Welfare Movement (PKK) Members in Lemberang Village"

2. RESEARCH METHOD

Quantitative descriptive research in the form of a descriptive survey is a case study that aims to provide an overview or description of a particular phenomenon or situation. This survey typically involves specific data collection techniques, such as interviews, questionnaires, or observations, depending on the situation being studied (Maidiana, 2021).

This research was conducted in Lemberang Village, Sokaraja District, Banyumas Regency, Central Java on October 21, 2025. The population used was 43 PKK members, the sample in this study was 30 people who had met the inclusion and exclusion criteria. The sampling technique used was total sampling. This research instrument used a knowledge questionnaire adopted from previous research totaling 16 statements and a readiness questionnaire totaling 25 statements that had been tested for validity and reliability. Data collection was carried out by questionnaires to PKK members; data collection was carried out directly during the PKK event so that researchers knew the process of filling out the questionnaire data. From the data that has been obtained, it was then processed with SPSS using frequency distribution.

3. RESULT AND DISCUSSION

The results of the study on "An Overview of Knowledge and Readiness for VIA Test Among Family Welfare Movement (PKK) Members in Lemberang Village" were conducted on February 22, 2025 in the Lemberang Village Hall on 30 respondents which are presented in the form of a frequency distribution table:

3.1 Respondent Characteristics Overview

The characteristics of respondents in the PKK members of Lemberang Village are presented in the following table:

Table 1. Frequency Distribution of Respondent Characteristics in PKK Members Lemberang Village

Characteristic	Frequency (f)	Percentage (%)
Age		
1. < 30 years	3	10.0
2. 30-50 years	22	73.3
3. > 50 years	5	16.7
Education		
1. No Schooling	0	0
2. Elementary School (SD)	2	6.7
3. Junior High School (SMP)	5	16.7
4. Senior High School (SMA)	20	66.7
	3	10.0
Employment		
1. Working	9	30.0
2. Not working	21	70.0
	30	100.0
Total	30	100

The characteristics of the respondents, the majority of whom were aged 30-50 years, as many as 22 respondents (73.3%), who had a high school education as many as 20 respondents (66.7%), and the majority of respondents were unemployed as many as 21 respondents (70%).

The results of the study on the characteristics of respondents in terms of age are in line with previous research by Elisabeth BH, as cited in Wawan A and Dewi M (2019), the older a person is, the more mature their responsiveness and mindset are, so their knowledge also increases. The higher a person's education, the easier it is for them to receive information, so their knowledge also increases Siti (2019). The lower a mother's education level, the more difficult it will be for her to receive information about VIA, making it more difficult for her to undergo the VIA test. Occupation affects a person's economic status, but too low a socioeconomic status can influence individuals to ignore the message conveyed because they prioritize other, more pressing needs Siti (2019).

3.2 Overview of the Level of Knowledge of the VIA Test on the PKK Members of Lemberang Village

Tabel 2. Frequency Distribution of Knowledge Level Regarding Visual Inspection with Acetic Acid (VIA) Test among PKK Members in Lemberang Village

Knowledge Level	Frequency (f)	Percentage (%)
Good	11	36.7
Fair	16	53.3
Poor	3	10.0
Total	30	100

Table 2. shows the level of knowledge of respondents regarding the VIA test among the PKK members of Lemberang Village, namely that the most respondents had sufficient knowledge, as many as 16 respondents (53.3%).

The results of this study are in line with the research of Mahatmika *et al.* (2023) which showed that most women of childbearing age who had never undergone an VIA examination had a level of knowledge in the sufficient category, namely 35 respondents (40.2%). This finding is also reinforced by the results of research by Silvana *et al.* (2023) which stated that the level of knowledge of mothers regarding the VIA examination as an early detection method for cervical cancer was mostly in the sufficient category, namely 47 people (94%).

3.3 Overview of VIA Test Readiness for PKK Members in Lemberang Village

Tabel 3. Frequency Distribution of VIA Test Readiness Factors

No	VIA Test Readiness Factor	Indicator	Frequency (f)	Percentage (%)
1.	Knowledge	Good	20	66.7
		Fair	10	33.3
		Poor	0	0
2.	Attitude	Positive	14	46.6
		Neutral	16	53.4
		Negative	0	0
3.	Social support	Strong	9	30.0
		Moderate	19	63.4

No	VIA Test Readiness Factor	Indicator	Frequency (f)	Percentage (%)
4.	Health worker support	Weak	2	6.6
		Strong	15	50.0
		Moderate	15	50.0
		Weak	0	0
5.	Access and Health Facilities	Good	16	53.3
		Fair	14	46.7
		Poor	0	0
Total			30	100

The VIA test for the knowledge readiness factor showed that 20 respondents (66.7%) had good knowledge of the PKK leaders in Lemberang Village. The attitude readiness factor showed that the majority of PKK leaders in Lemberang Village were neutral, with 16 respondents (53.4%). The social support readiness factor showed that 19 respondents (63.4%) had moderate social support. The health worker support readiness factor showed that 15 respondents (50%) had strong support for health workers, and 15 respondents (50%) had moderate support. The health access and facilities readiness factor showed that 16 respondents (53.3%) had good access and facilities.

Respondents who had good knowledge about cervical cancer and early detection through VIA till chose not to undergo the examination due to feelings of embarrassment and fear during the procedure. The women were aware that during the VIA examination, they would be asked to assume a position similar to that of giving birth. This made them feel somewhat uncomfortable and embarrassed in front of the medical personnel conducting the test. This finding is consistent with the research conducted by Sagita & Rohmawati (2020). Kurniawati (2018) also revealed that psychological barriers such as fear and shame are the main obstacles for women in undergoing the VIA test. Interviews revealed that one factor contributing to low participation in the examination is embarrassment when having to examine the reproductive organs.

The majority of respondents received moderate social support. This social support includes encouragement from family, peers, community leaders, and organizations such as the PKK. Social support plays a crucial role in increasing individual readiness for health care. Research by Asih *et al.* (2020) shows that support from husbands plays a significant role in the implementation of VIA testing. This support can take the form of providing information, motivation, and assistance during the examination, which can reduce psychological barrier.

The majority of respondents reported receiving strong support from healthcare workers. None reported receiving weak support. This indicates that healthcare workers have played an active role in disseminating information and motivating the community about the importance of early cervical cancer detection. Healthcare workers, such as village midwives, nurses, and health promotion workers, play a crucial role in shaping community knowledge and attitudes.

Most respondents rated health access and facilities as good, with the remainder as adequate. No respondents stated that access or facilities were inadequate. This indicates that health services in Lemberang Village are relatively accessible and adequate to support the implementation of VIA testing. The availability of adequate health facilities, such as community health centers with early cervical cancer detection services, trained medical personnel, and VIA testing equipment, are crucial for increasing screening coverage.

The research findings revealed that five factors influencing VIA test readiness include knowledge, attitudes, social support, support from healthcare professionals, and access to healthcare facilities. To determine whether respondents were highly, moderately, or lowly prepared for the VIA test, these five factors were added together. The following table summarizes the VIA test readiness of the Lemberang Village PKK members :

Table 4. Frequency Distribution of VIA Test Readiness

Readiness Level	Frequency (f)	Percentage (%)
High Readiness	20	66.7
Moderate Readiness	10	33.3
Low Readiness	0	0
Total	30	100

Table 4. above shows that the highest readiness for the VIA test among the PKK members in Lemberang Village was 20 respondents (66.7%).

After summing the five factors, the majority of respondents were found to have high readiness, with the remainder having moderate readiness. No respondents were found to have low readiness. This indicates that the Lemberang Village PKK members are generally ready to carry out or participate in the VIA test. This level of

readiness needs to be maintained and improved, particularly in the aspects of attitude and social support, which still show moderate scores. Health education programs that target psychological and emotion.

4. CONCLUSION

Based on the research conducted and the discussion, several conclusions are characteristics of respondents in the Lemberang Village of PKK committee include : more than half (22 respondents) aged 30-50 years, the majority (20 respondents) having a high school education, and the majority (21 respondents) being unemployed. The knowledge level of the PKK committee members in Lemberang Village is : more than half (16 respondents) are in the adequate category. The readiness level of the PKK committee members in Lemberang Village is: 20 respondents (66.7%) have a high level of readiness for the VIA test.

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