

## FACTORS ASSOCIATED WITH EARLY DETECTION OF CERVICAL CANCER BY THE IVA TEST METHOD IN PUS WOMEN IN THE TANAH KAMPUNG HEALTH CENTER WORKING AREA IN 2023

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### ABSTRAK

Cervical cancer is cancer found in the cervix or cervix, which is the area of the lower part of the uterus that connects the uterus with the vagina, about 85% of cancer cases in the world which amounted to about 493,000 cases with a total of 273,000 cases causing death, occurred in developing countries. Indonesia itself is listed as one of the developing countries with the second largest cervical cancer rate after China. The preliminary study of the VIA test examination in the Tanah Kampung Health Center work area is still very low, namely in 2021 it was 3.1% of the national target of 80%, the purpose of the study was to determine the factors associated with early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center work area in 2023. This research design with cross sectional design. The study population was 118 PUS women with a sample of 54 people. The sampling technique used simple random sampling. The statistical test used Chi Square test with  $\alpha < 0.05$ . The results of statistical tests obtained there is a relationship between attitudes with VIA tests with a P-value = 0.016 ( $\alpha = 0.05$ ), there is a relationship between access to information with VIA tests with a P-value = 0.033 ( $\alpha = 0.05$ ), there is a relationship between husband support with VIA tests with a P-value = 0.007 ( $\alpha = 0.05$ ). This study can be concluded that there is a relationship between attitude, access to information and husband's support with early detection of cervical cancer by VIA test method so it is recommended to increase health promotion regarding early detection of cervical cancer by VIA test method.

**Keywords :** *attitude, access to information, husband's support, IVA test*

### 1. INTRODUCTION

Cervical cancer is cancer found in the cervix or cervix, which is the lower area of the uterus that connects the uterus to the vagina<sup>1</sup>. Data from the International Agency for Research on Cancer (IARC), 85% of cancer cases in the world, which amounted to around 493,000 cases with 273,000 cases causing death, occurred in developing countries. Indonesia itself is listed as one of the developing countries with the second largest cervical cancer rate after China<sup>2</sup>. The results of the WHO consultation stated that the VIA test method can detect pre-cancerous level lesions with a sensitivity of around 66-69% and a specificity of around 64-98%. While the positive predictive value and negative predictive value are between 10-20% and 92-97%<sup>3</sup> respectively. To support the cervical cancer early detection program, it is necessary to follow up the declaration of the promotive, preventive movement by encouraging women in each region to carry out early detection of cervical cancer<sup>4</sup>.

The incidence of cervical cancer can be prevented by screening or early detection of precancerous lesions. Early detection of precancerous lesions can prevent precancerous lesions from progressing to cervical cancer if treatment is

immediately carried out<sup>5</sup>. to conduct an early detection examination of cervical cancer using the IVA test method, if the result is positive (+) then the IVA examination is carried out every year and if the result is negative (-) the examination can be carried out every 5 years<sup>6</sup>.

International research conducted by Kartika with the research title Factors that influence the participation among women in Inspection Visual Acetic acid (IVA) test shows the results of research factors that are significantly associated with the non-participation of women of childbearing age in IVA examination are access to information (0.007), family support (0.001), officer support (0.007), and friend support (0.066). Multivariable analysis showed that family support was a significant factor. Women of childbearing age who did not receive family support had a 46.9 times risk of not participating in VIA examination<sup>7</sup>.

Ummul Qura's research with the title The Determinants of Cervical Cancer Early Detection Behavior with IVA Test Method in Visitors of Polyclinic "KIA-KB" in Kassi-Kassi Public Health Center of Makassar City, with the results of the study The results showed that there was a relationship between knowledge ( $p = 0.000$ ), attitude ( $p =$

0.005), husband support ( $p = 0.000$ ), and health worker support ( $p = 0.000$ ) with cervical cancer early detection behavior using the IVA method<sup>7</sup>.

## 2. MATERIALS AND METHODS

The population in this study was "women of childbearing age (PUS). The population was all 118 PUS women estimated in October 2023 at the health center who made a visit.

Sampling technique is sampling to determine the sample to be used in research<sup>8</sup>. In this study using a sampling method using non-probability sampling, with a simple random sampling technique, the sampling of sample members was carried out randomly, only respondents who met the criteria could be sampled in this study<sup>8</sup>. The tools used in data collection are questionnaires and Chi Square tests..

## 3. RESULTS

**Table 1.** Frequency distribution of VIA test method examination.

| No    | VIA test examination | F  | Percentage(%) |
|-------|----------------------|----|---------------|
| 1     | Check                | 25 | 46,3          |
| 2     | No Check             | 29 | 53,7          |
| Total |                      | 54 | 100,0         |

Based on table 2.1, the results of the frequency distribution of early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center working area of Sungai Penuh City in 2023 from 54 respondents, most of the respondents did not check, namely 29 respondents (53.7%).

**Table 2:** Frequency distribution of attitude

| No    | Attitude | F  | Percentage (%) |
|-------|----------|----|----------------|
| 1     | Negative | 34 | 63,0           |
| 2     | Positive | 20 | 37,0           |
| Total |          | 54 | 100,0          |

Based on table 2.2, the results of the frequency distribution of attitudes towards early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center working area of Sungai Penuh City in 2023 out of 54 respondents, most of the respondents with negative attitudes were 34 respondents (63%).

**Table 3.** Frequency distribution of information access

| No    | Acces Information | F  | Percentage(%) |
|-------|-------------------|----|---------------|
| 1     | Good              | 24 | 44,4          |
| 2     | Not so Good       | 30 | 55,6          |
| Total |                   | 54 | 100,0         |

Based on table 2.3, the results of the frequency distribution of access to information on early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center working area of Sungai Penuh City in 2023 from 54 respondents, most of the respondents with poor access to information were 30 respondents (55.6%).

**Table 4.** Frequency distribution of husband's support

| No    | husband's support | F  | Percentage(%) |
|-------|-------------------|----|---------------|
| 1     | Support           | 22 | 40,7          |
| 2     | No support        | 32 | 59,3          |
| Total |                   | 54 | 100,0         |

Based on table 2.4, the results of the frequency distribution of husband's support for early detection of cervical cancer in PUS women in the Tanah Kampung Health Center working area of Sungai Penuh City in 2023 from 54 respondents, most of the respondents with unsupportive husband support were 32 respondents (59.3%).

**Table 5.** Relationship between attitude and early detection of cervical cancer by VIA test method

| Variables | VIA method examination test |     |          |      | Total | P-Value |
|-----------|-----------------------------|-----|----------|------|-------|---------|
|           | Check                       |     | No Check |      |       |         |
|           | F                           | %   | F        | %    |       |         |
| Atitude   | Positive                    |     |          |      | 34    | 0,016   |
|           | 5                           | 9,3 | 15       | 27,8 |       |         |
| Total     |                             | 25  | 46,3     | 29   | 53,7  |         |

Based on table 2.5, it can be seen that of the 34 respondents with a positive attitude who did not conduct early detection of cervical cancer by VIA test method, 14 respondents (25.9%). Meanwhile, of the 20 respondents who had a negative attitude, 15 respondents (27.8%) did not conduct an early detection examination of cervical cancer using the VIA test method.

The results of statistical tests using the chi square test, obtained the results of the calculation of P-value = 0.016 < ( $\alpha = 0.05$ ), then Ho is rejected and Ha is accepted, so there is a relationship between attitude and early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung City Health Center working area in 2023.

**Table 6: Relationship between access to information and early detection of cervical cancer by VIA test method**

| Variables             |             | VIA method examination test |      |          |      | Total | P-Value |
|-----------------------|-------------|-----------------------------|------|----------|------|-------|---------|
|                       |             | Check                       |      | No Check |      |       |         |
|                       |             | F                           | %    | F        | %    |       |         |
| Access to Information | Good        | 15                          | 27,8 | 9        | 16,7 | 24    | 0,033   |
|                       | Not so Good | 10                          | 18,5 | 20       | 37,0 | 30    |         |
| <b>Total</b>          |             | 25                          | 46,3 | 29       | 53,7 | 54    |         |

Based on table 2.6, it can be seen that of the 24 respondents with good access to information who did not conduct early detection of cervical cancer by VIA test method, 9 respondents (16.7%). Whereas out of 30 respondents who had poor access to information, 20 respondents (37.0%) did not perform early detection of cervical cancer by VIA test method.

The results of statistical tests using the chi square test, obtained the results of the calculation of P-value = 0.033 < ( $\alpha = 0.05$ ), then Ho is rejected and Ha is accepted, so there is a relationship between access to information with early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung City Health Center working area in 2023.

**Table 7. Relationship between husband's support and early detection of cervical cancer by VIA test method**

| Variables         |            | VIA method examination test |      |          |      | Total | P-Value |
|-------------------|------------|-----------------------------|------|----------|------|-------|---------|
|                   |            | Check                       |      | No Check |      |       |         |
|                   |            | F                           | %    | F        | %    |       |         |
| Husband's Support | Support    | 15                          | 27,8 | 7        | 13,0 | 22    | 0,007   |
|                   | No support | 10                          | 18,5 | 22       | 40,7 | 32    |         |
| <b>Total</b>      |            | 25                          | 46,3 | 29       | 53,7 | 54    |         |

Based on table 2.7, it can be seen that of the 22 respondents who received husband support who did not conduct early detection of cervical cancer by VIA test method, 7 respondents (13.0%). Meanwhile, out of 32 respondents who did not have husband support, 22 respondents (40.7%) did not conduct early detection of cervical cancer by VIA test method.

The results of statistical tests using the chi square test, obtained the results of the calculation of P-value = 0.007 < ( $\alpha = 0.05$ ), then Ho is rejected and Ha is accepted, so there is a relationship between husband support and early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center working area in 2023

## DISCUSSION

### Early detection of cervical cancer by VIA test method

Efforts to check early detection with the VIA test method are not widely known to the wider community. This is due to the lack of knowledge of PUS women, especially to conduct early VIA tests, if a PUS woman has good knowledge, it can increase her compliance and motivation in conducting early detection of cervical cancer<sup>9</sup>. The VIA test is an alternative screening method to identify precancerous lesions by applying 3-5% acetic acid in iodine solution to the cervix with the help of a cotton stick, within 1 -2 minutes if the results of the examination are found cancerous lesions, there will be a change in color in the cervix to a whitish color<sup>10</sup>.

In accordance with Khosidah's research which shows that there is a significant relationship between knowledge and VIA test examination. PUS women's knowledge about VIA tests is very important in order to foster the desire of PUS women in preventing cervical cancer. A good understanding of PUS women about VIA can encourage PUS women to do the VIA test.

Based on the researcher's assumption, most of the respondents did not conduct an early detection examination of cervical cancer using the VIA test method due to women who worked outside the home, because when health information was given, especially information about the VIA test, they were working, so the information conveyed did not reach them. And some still feel embarrassed and think it is not too important to do the VIA test when they feel there are no signs and symptoms of cervical cancer.

### Attitudes toward early detection of cervical cancer using the VIA test method

The lack of VIA examination can be influenced by the mother's negative attitude towards VIA examination. Various factors that influence attitude formation are personal experience, knowledge, culture, other people who are considered important, mass media, educational institutions and religion, emotional factors within themselves<sup>11</sup>. Based on research conducted by Wahyuni, most of the PUS women who have a lack of attitude towards VIA examination can be caused by several factors, one of which is access to information related to the knowledge of PUS women so that it is considered not important if it has not shown the symptoms felt by the PUS women themselves<sup>11</sup>.

According to the researcher's assumption, this negative attitude is due to the lack of information obtained by PUS women about the importance of the VIA test, many PUS women still feel embarrassed and afraid to do the VIA test.

#### **Access to information on early detection of cervical cancer using the VIA test method**

Knowledge can be obtained from experiences that come from various sources of information so that it can form a belief for someone. One of the factors that influence a person's knowledge is information or counseling from competent people such as midwives, cadres and other health workers. A person's exposure to health information obtained can encourage health behavior. Respondents who have been exposed to information about VIA tend to know more about the dangers of cervical cancer and the benefits of performing VIA examinations, which can encourage them to perform VIA examinations<sup>12</sup>.

Based on international research conducted by Yoga on information support and characteristics of women of childbearing age affect cervical cancer early detection behavior 2021 Dissemination of information related to acetic acid visual inspection for early detection of cervical cancer needs to be increased again and the community proactively seeks information either asking health workers or searching on social media or the internet. Thus, cervical cancer early detection behavior in women of childbearing age can be realized by visiting health facilities, both free and paid<sup>13</sup>.

According to the researcher's assumption from the results of the study with access to information obtained by PUS women will increase knowledge about the importance of VIA tests, the more information about health will foster awareness of PUS to check health and carry out VIA tests.

#### **Relationship between attitude and early detection of cervical cancer by VIA test method**

Based on the results using the Chi Square test, the  $p\text{-value} = 0.016$  ( $\alpha = 0.05$ ), there is a relationship between attitude and early detection of cervical cancer using the VIA test method in PUS women in the Tanah Kampung Health Center working area in 2023. Attitude is a tendency to act. Respondents who have a negative attitude may not do the VIA test because the VIA test is not considered important, especially since no symptoms are felt<sup>14</sup>. Based on research conducted by Kartini on the relationship between knowledge and attitudes of mothers about acetic acid visual inspection examination at the Poasia Health Center, Kendari City, with the results of research Women of childbearing age who have a positive attitude mostly have sufficient knowledge, while PUS who have a negative attitude mostly have less knowledge. There is a relationship between knowledge and maternal attitudes about visual inspection of acetic acid at the Poasia Health Center in Kendar City with a chi square test ( $p = 0.000$ ).

According to the researcher's assumption, the mother's attitude is very influential on health behavior, the better the knowledge of the respondent, the more positive the attitude of the respondent in the VIA test, respondents with good knowledge will understand and understand the importance of the VIA test. Based on the results of the study, most respondents with a negative attitude, this is a factor in the behavior of the VIA test, some of them know that early detection of cervical cancer is important to do, and realize that there is no need to be ashamed to be examined in their female organs, but most of them feel embarrassed and do not carry out early detection of cervical cancer by the VIA method.

#### **Relationship between access to information and early detection of cervical cancer by VIA test method**

Based on the results using the Chi Square test, the  $p\text{-value} = 0.033$  ( $\alpha = 0.05$ ), there is a relationship between access to information and early detection of cervical cancer using the VIA test method in PUS women in the Tanah Kampung Health Center working area in 2023. Information can be received through direct officers in the form of counseling, education, health, and village officials through broadcasts in dasawisma groups or others through mass media, leaflets, television broadcasts, advertisements and so on<sup>15</sup>.

Research conducted by yoga on Characteristics and Information Support for Early Detection Behavior of Cervical Cancer using the Acetic Acid Visual Inspection Method in Women of Fertile Age, from bivariate analysis shows that there is a relationship between exposure to information about IVA tests with IVA examinations in PUS women ( $p\text{-value} 0.000$ ). According to the assumption of researchers, health workers play an important role in conveying health information to the community, especially about the importance of early detection of cervical cancer using the VIA test method, access to information can be obtained through social media, leaflets, and counseling during posyandu. IVA tester examination is carried out because of the information obtained and the willingness to carry out an IVA examination<sup>13</sup>.

#### **The relationship between husband's support and early detection of cervical cancer by VIA test method**

Based on the results using the Chi Square test, the  $p\text{-value} = 0.007$  ( $\alpha = 0.05$ ), there is a relationship between husband support and early detection of cervical cancer using the VIA test method in PUS women in the Tanah Kampung Health Center working area in 2023. Support is a force that regulates behavior to achieve goals from someone who has a relationship with the individual. Meanwhile, husband's support is a form of manifestation of attentiveness to his wife and has a significant contribution in determining her health status<sup>16</sup>.

According to Yustisianti's research, husband support is a form of reinforcing factors where the greater

the support obtained by the wife to do the VIA test, there will be a change in the wife's behavior to do the VIA test regularly.

According to the researcher's assumption, respondents with supportive husband support will increase the respondent's motivation to carry out their health checks, as well as husbands who do not support their spouses in conducting VIA tests will influence the respondent's attitude not to conduct VIA tests, husband support is a reinforcing factor for conducting VIA tests.

#### 4. CONCLUSIONS AND SUGGESTIONS

Based on the results of the research that the researchers have done, it can be concluded as follows:

1. Most of the respondents had a negative attitude, namely 34 respondents (63.0%).
2. Most respondents had poor information access, as many as 30 respondents (55.6%).
3. Most respondents had unsupportive husband support, namely 32 respondents (59.3%).
4. There is a relationship between attitude and early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center working area of Sungai Penuh City in 2023. With a p-value = 0.016 ( $\alpha = 0.05$ ).
5. There is a relationship between access to information with the examination of early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center working area of Sungai Penuh City in 2023. With a p-value = 0.033 ( $\alpha = 0.05$ ).
6. There is a relationship between husband's support and early detection of cervical cancer by VIA test method in PUS women in the Tanah Kampung Health Center working area of Sungai Penuh City in 2023. With a P-value = 0.007 ( $\alpha = 0.05$ ).

It is expected that health workers can motivate families to participate in providing support in conducting VIA tests in order to prevent early detection of cervical cancer, and provide useful counseling for families, especially husbands, about the benefits of VIA tests.

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