

Megawati Sinambela_ Affecting factors of using Visual Inspection

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AFFECTING FACTORS OF THE UTILIZATION OF EARLY DETECTION EXAMINATION OF CERVICAL CANCER WITH THE VISUAL INSPECTION METHOD OF ACETIC ACID

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Introduction

Cancer is a big health problem as it is responsible for the high mortality in various countries in the world including Indonesia (Hardiyanti et al, 2020). Incidence and of cervical cancer in Indonesia which reminded high in last 27 years indicates the program of prevention need to be strengthened, especially for prevention through vaccination and early detection. The program of screening on this cancer should be expanded and reach all target (Arimurti and Nurmala, 2017). Worldwide, cervical cancer is one of the leading causes of death from cancer in women; most deaths occur in low to middle income countries (RCN guidance, 2020). Thus a cervical cancer of the Human Papilloma Virus (HPV) virus tends to increase in the worldwide. Human papillomavirus (HPV) infection, one of the most common sexually transmitted diseases is associated with cancers such as cervical cancer (Cheng et al, 2020). Data shows around 10 million new cases per year and amounting to 15 million cases in 2020. It noted that the incidence of cervical cancer in Indonesia reaches 13% with a mortality of 10.3%; but the world is higher, that is 19.3% with a death rate of 17% (Globocan, 2014). Thus, Globocan and International Agency for Research on Cancer (IARC) show that in 2014 the incidence of cervical cancer worldwide was 16 per 100,000 populations. In 2018 the prevalence of cervical cancer in Indonesia was 198,692 cases, North Sumatra Province 6,217 cases, Lampung Province 765 cases, South Sumatra Province 1,500 cases.

Cervical cancer is the most common cancer in women in developing countries, whereas as many as three-quarters of the estimated half a million new cases occur each year (Roden & Stern, 2018). Cervical cancer ranks third in cancer incidence worldwide and is the most frequent gynecological cancer in developing countries (Tsikouras et al, 2016). Studies of the natural history of cervical cancer have shown that infection with high-risk HPV types may lead to low-grade or high-grade intraepithelial lesions. Currently there are two types of diagnostic tests for cervical cancer screening: Papanicolaou test and HPV test. The first one detects early the precancerous and cancerous cell lesions in order to be effectively treated and the second one infection by HPV types that could lead to cancer (Näsman et al, 2020). The purpose of screening, in addition to detecting cervical cancers at an early stage, is to detect and remove high-grade lesions and thus prevent potential progression to cervical carcinoma

(Canfell et al, 2020).

Every year no less than 15,000 cases of cervical cancer occur in Indonesia. That makes cervical cancer called the number 1 killer disease in Indonesia; this is because every day in Indonesia, out of 40 women diagnosed with cervical cancer, 20 of them die of cervical cancer. Cervical cancer incidence in Indonesia rose slightly from 7.4 per 100,000 women in 1990, to 8.7 per 100,000 women in 2017 or increased 17% and ranked number 5 from all cancers (Wahidin et al, 2020). To reduce the incidence rate of cervical cancer, cervical cancer prevention requires a multipurpose approach involving primary, secondary, and tertiary **preventions** (Gamaoun, 2018). Screening strategies should consider the benefits and risks of screening to **avoid unnecessary** discovery and treatment of transient infections of human papillomavirus (HPV) (Mc Graw SL, & Ferrante, 2014).

Based on data from the Humbang Hasundutan District Health Office Of North Sumatra Province in 2020, among the 12 Community Health Centers (Puskesmas) in Humbang Hasundutan Regency, it is found that the Baktiraja Community Health Center is **one of the Health Centers** with a low cervical cancer early detection coverage rate of 4% or 34 people, but this number is still not achieved the national target in 2020 which sets a target of 50% of women who do early detection of cervical cancer with the Visual Inspection Acid (IVA) method. Based on the initial survey at the Baktiraja Community Health Center in December 2020, it found that the number of women at **fertile** age (Fertile Mothers) was 486 people. Furthermore, the results of interviews with 10 mothers **who did the IVA test**, it found that 7 people did not know about the benefits of the IVA test and 3 mothers who knew little about the IVA test. Lack of **mothers knowledge of cancer test** was due to less widespread information dissemination through health promotion **about the IVA test**; so that many Fertile Mothers were hesitant to participate in the IVA test. Other studies have found that those with poor knowledge (97.5%) did not follow the IVA examination, while those **with good knowledge** (93.9%) did not follow the IVA examination (Adyani & Realita, 2020) **Based on the description above, the researcher is interested in knowing the** analysis of the factors that influence the use of the IVA method of early cervical cancer screening at the Baktiraja Community Health Center, Humbang Hasundutan Regency in 2021.

Method

A cross-sectional study approach was applied to seek a dynamic correlation between risk factors and effects. Cross-sectional studies are observational studies that analyze data from a population at a single point in time. They are often used to measure the prevalence of health outcomes, understand determinants of health, and describe features of a population (Wang & Cheng, 2020). In medical research, a cross-sectional study is a type of observational study design that involves looking at data from a population at one specific point in time. In a cross-sectional study, investigators measure outcomes and exposures of **the** study subjects at the same time (Etminan et al, 2020).

It collected the affecting factors that influence the use of **early detection of cervical cancer** with the IVA method. The population of this study was **all fertile women aged 20–50 years and a sample of 83 respondents**. The research data analysis by univariate one in the

form of frequency tables and bivariate analysis using the Chi-square test then continued with multivariate analysis using multiple logistic regression tests with a confidence level of 95% ($\alpha = 0.05$)

Results and Discussion

Table 1. Characteristics of Respondents by Age and Education

| Characteristics | N | Percentage (%) |
|------------------|----|----------------|
| Age | | |
| 20- 35 y.o | 31 | 37.3 |
| 36- 50 y.o | 52 | 62.7 |
| Total | 83 | 100 |
| Education | | |
| High | 36 | 43.4 |
| Low | 47 | 56.6 |
| Total | 83 | 100 |

Based on the results of the research above, the majority of respondents have an age > 15- 49 years as many as 52 respondents (62.7%) and a minority of respondents aged <15-49 years as many as 31 respondents (37.3%). Meanwhile, the majority of respondents' education level is low as many as 47 respondents (56.6%) and the minority of respondents with high education level is 36 respondents (43.4%).

Table 2 Respondents' Frequency Distribution based on Knowledge

| Knowledge | N | Percentage (%) |
|-----------|----|----------------|
| Good | 31 | 37.3 |
| Bad | 52 | 62.7 |
| Total | 83 | 100.0 |

Based on table 2, it can be seen that the majority of respondents have bad knowledge as many as 52 respondents (62.7%) and respondents have good knowledge as many as 31 respondents (37.3%).

Table 3. Respondents Frequency Distribution Based on Attitudes

| Attitudes | N | Percentage (%) |
|-----------|----|----------------|
| Positive | 30 | 36.1 |
| Negative | 53 | 63.9 |
| Total | 83 | 100.0 |

Based on table 3, it can be seen that the majority of respondents have negative attitudes, namely as many as 53 respondents (63.9%) and 30 respondents (36.1%) who have positive attitudes.

Table 4. Respondent Frequency Distribution Based on the Availability of Facilities and Infrastructure

| Availability of Facilities and Infrastructure | N | Percentage (%) |
|---|----|----------------|
| Available | 32 | 38.6 |
| Not available | 51 | 61.4 |

| | | |
|-------|----|-----|
| Total | 83 | 100 |
|-------|----|-----|

Based on table 4. It can be seen that the majority of the availability of facilities and infrastructure is unavailable as many as 51 people (61.4%) and available as many as 32 respondents (38.6%).

Table 5. Respondents Frequency Distribution Based on Health-Related Skills

| Health-Related Skills | N | Percentage (%) |
|-----------------------|----|----------------|
| Skilled | 21 | 25.3 |
| Not skilled | 62 | 74.7 |
| Total | 83 | 100 |

Based on table 5, It can be seen that the majority of respondents answered that skills related to health were unskilled as many as 62 respondents (74.7%) and skilled as many as 21 respondents (25.3%).

Table 6. Respondents Frequency Distribution Based on Family Support

| Family Support | N | Percentage (%) |
|----------------|----|----------------|
| Supported | 31 | 37.3 |
| Not Supported | 52 | 62.7 |
| Total | 83 | 100 |

Based on table 6. It can be seen that the majority of respondents answered that family support was unsupported by 52 respondents (62.7%) and supported by 31 respondents (37.3%).

Table 7. Respondents Frequency Distribution Based on Health Service Providers

| Health Service Providers | N | Percentage (%) |
|--------------------------|----|----------------|
| Available | 31 | 37.3 |
| Not available | 52 | 62.7 |
| Total | 83 | 100 |

Based on table 7. It can be seen that the majority of respondents answered that the health service provider was not available as many as 52 respondents (62.7%) and 31 respondents (37.3%) were available.

Table 8. Frequency Distribution of Respondents Based on the Utilization of Early Cervical Cancer Examination by the IVA Method

| Utilization of the IVA Method | N | Percentage (%) |
|-------------------------------|----|----------------|
| Used | 37 | 44.6 |
| Not used | 46 | 55.4 |
| Total | 83 | 100 |

Based on table 8, It can be seen that the majority of respondents did not use the IVA test method for cervical cancer prevention as many as 46 respondents (55.4%) and 37 respondents (44.6%) used the IVA test method.

Bivariate Analysis

Table 9. The Relationship between Age and the Utilization of the Early Detection of Cervical Cancer by the IVA Method

| Age | Utilization of IVA Method | | | | Total | | ρ value | PR (95% CI) |
|-------------------|---------------------------|------|----------|------|-------|-----|--------------|----------------------------------|
| | Used | | Not Used | | | | | |
| | N | % | n | % | N | % | | |
| <20-35 y.o | 9 | 29 | 22 | 71 | 31 | 100 | 0,049 | 0,351 (95%CI): 0,136-0,905 |
| >36-50 y.o | 28 | 53,8 | 24 | 46,2 | 52 | 100 | | |
| Total | 37 | 44,6 | 46 | 55,4 | 83 | 100 | | |
| Missing " " (n=5) | | | | | | | | |

The results of the analysis to determine the relationship between age and the use of early detection of cervical cancer in the IVA method obtained p-value = 0.049 < p = 0.05, so it can be concluded that there is a relationship between age and the use of early detection of cervical cancer in the IVA method. The results of the analysis obtained a PR value of 0.351 which means that age has a 0.3 times greater chance of utilizing the early IVA method of cervical cancer screening.

Table 10. The Relationship between Education and the Utilization of the Early Detection of Cervical Cancer by the IVA Method

| Education | Utilization of the IVA Method | | | | Total | | ρ value | PR (95% CI) |
|-----------|-------------------------------|------|----------|------|-------|-----|--------------|----------------------------------|
| | Used | | Not Used | | | | | |
| | N | % | N | % | N | % | | |
| High | 14 | 35 | 26 | 65 | 40 | 100 | 0,141 | 0,468 (95%CI: 0,193-1,133) |
| Low | 23 | 53,5 | 20 | 46,5 | 43 | 100 | | |
| Total | 37 | 44,6 | 46 | 55,4 | 83 | 100 | | |

The results of the analysis to determine the relationship between education and the use of early detection of cervical cancer in the IVA method obtained p-value = 0.141 > p = 0.05, so it can be concluded that there is no relationship between education and the use of early detection of cervical cancer in the IVA method. The analysis results obtained a PR value of 0.468 which means education is 0.4 times more likely to take advantage of early cervical cancer screening by the IVA method.

Table 11. The Relationship between Knowledge and the Utilization of the Early Detection of Cervical Cancer by the IVA Method

| Knowledge | Utilization of the IVA Method | | Total | ρ value | PR (95% CI) |
|-----------|-------------------------------|----|-------|--------------|----------------|
| | Yes | No | | | |
| | | | | | 0,276 |

| | N | % | N | % | N | % | 0,015 | (95%CI: 0,104-0,730) |
|-------|----|------|----|------|----|-----|-------|-------------------------|
| Good | 8 | 25,8 | 23 | 74,2 | 31 | 100 | | |
| Bad | 29 | 55,8 | 28 | 44,2 | 52 | 100 | | |
| Total | 37 | 44,6 | 46 | 55,4 | 83 | 100 | | |

The results of the analysis to determine the relationship between knowledge and the use of early detection of cervical cancer in the IVA method obtained p-value = 0.015 < p = 0.05, so it can be concluded that there is a relationship between knowledge and utilization of cervical cancer early detection in the IVA method. The results of the analysis obtained a PR value of 0.276, which means that knowledge has a 0.2 times greater chance of utilizing the early IVA method of cervical cancer screening.

Table 12. The Relationship between Attitudes and the Utilization of the Early Detection of Cervical Cancer by the IVA Method

| Attitudes | Utilization of the IVA Method | | | | Total | | ρ value | PR (95 % CI) |
|-----------|-------------------------------|------|--------------|------|-------|-----|--------------|------------------|
| | Utilized | | Not Utilized | | | | | |
| | N | % | n | % | N | % | | |
| Positive | 8 | 26,7 | 22 | 73,3 | 30 | 100 | 0,025 | 0,301 (95%CI: |
| Negative | 29 | 54,7 | 24 | 45,3 | 53 | 100 | | 0,114- |
| Total | 37 | 44,6 | 46 | 55,4 | 83 | 100 | | 0,796) |

The results of the analysis to determine the relationship between attitudes and the use of early detection of cervical cancer in the IVA method obtained p-value = 0.025 < p = 0.05, so it can be concluded that there is a relationship with the use of early detection of cervical cancer in the IVA method. The results of the analysis obtained a PR value of 0.301 which means that the attitude has a 0.3 times greater opportunity to take advantage of early cervical cancer screening by the IVA method.

Table 13. The relationship between the availability of facilities and infrastructure with the use of the IVA method of cervical cancer early detection

| Availability of Facilities and Infrastructure | Utilization of the IVA Method | | | | Total | | ρ value | PR (95% CI) |
|---|-------------------------------|------|--------------|------|-------|-----|--------------|------------------|
| | Utilized | | Not Utilized | | | | | |
| | N | % | N | % | N | % | | |
| Available | 9 | 28,1 | 23 | 71,9 | 32 | 100 | 0,031 | 0,321 (95%CI: |
| Not available | 28 | 54,9 | 23 | 45,1 | 51 | 100 | | 0,125- |
| Total | 37 | 44,6 | 46 | 55,4 | 83 | 100 | | 0,829) |

The results of the analysis to determine the relationship between the availability of facilities and infrastructure with the use of early detection of cervical cancer with the IVA method obtained p-value = 0.031 < p = 0.05, so it can be concluded that there is a relationship between the availability of facilities and infrastructure with the use of cervical cancer early detection of the IVA method obtained PR value of 0.031, which means that the availability of

facilities and infrastructure has a 0.3 times greater chance of utilizing the early IVA method of cervical cancer screening.

Table 14. Relationship between Health-Related Skills and Utilization

| Health-Related Skills | Utilization of the IVA Method | | | | Total | | ρ value | PR (95% CI) |
|-----------------------|-------------------------------|------|--------------|------|-------|-----|--------------|----------------------------|
| | Utilized | | Not Utilized | | | | | |
| | n | % | n | % | N | % | | |
| Skilled | 10 | 47,6 | 11 | 52,4 | 21 | 100 | 0,944 | 1,178 (95%CI: 0,427- |
| Not Skilled | 27 | 43,5 | 35 | 56,5 | 62 | 100 | | 3,180) |
| Total | 37 | 44,6 | 46 | 55,4 | 83 | 100 | | Missing ", " (E) |

The results of the analysis to determine the relationship of health-related skills with the use of early detection of cervical cancer in the IVA method showed $p\text{-value} = 0.944 > p = 0.05$, so it can be concluded that there is no relationship between health-related skills and the use of early detection of cervical cancer in the IVA method. The results of the analysis obtained a PR value of 1.178, which means that skills related to health have a 1.17 times greater chance of utilizing the IVA method of early cervical cancer screening.

Table 15. The Relationship between Family Support and the Use of the IVA Method for Early Detection of Cervical Cancer

| Family support | Utilization of the IVA Method | | | | Total | | ρ value | PR (95% CI) |
|----------------|-------------------------------|------|--------------|------|-------|-----|--------------|------------------|
| | Utilized | | Not Utilized | | | | | |
| | n | % | n | % | N | % | | |
| Supported | 8 | 25,8 | 23 | 74,2 | 31 | 100 | 0,015 | 0,276 (95%CI: |
| Not Supported | 29 | 55,8 | 23 | 44,2 | 52 | 100 | | 0,104- |
| Total | 37 | 44,6 | 46 | 55,4 | 83 | 100 | | 0,730) |

Table 17. Multivariate Candidate Variables on Age, Education, Knowledge, Attitudes, Availability of Facilities and Infrastructure, Family Support and Health Service Providers

| No | Variable | P-value |
|----|---|---------|
| 1 | Age | 0,049 |
| 2 | Education | 0,141 |
| 3 | Knowledge | 0,015 |
| 4 | Attitudes | 0,025 |
| 5 | Availability of Facilities and Infrastructure | 0,031 |
| 6 | Family Support | 0,015 |
| 7 | Health Service Providers | 0,049 |

From the results of the bivariate analysis, it was found that all variables had a $p\text{-value} < 0.25$ so that the seven variables could be included in the predictive model for the determinants of the use of early detection of cervical cancer using the IVA method using logistic regression at the 95% confidence level. The results of the analysis of the relationship between the independent variables which include age, education, knowledge, attitudes,

availability of facilities and infrastructure, family support and health service providers are presented in the table below:

Table 18. Results of Multiple Logistic Regression Analysis on Variables Age, Education, Knowledge, Attitudes, Availability of Facilities / Infrastructure, Family Support and Health Service Providers

| Variable | SE | p-Value | Exp (B) |
|---|-----------|---------|---------|
| Age | 27219.175 | 0.999 | 0.000 |
| Education | 0.487 | 0.354 | 1.571 |
| Knowledge | 1.293 | 0.217 | 4.927 |
| Attitudes | 40192.962 | 1.000 | 0.000 |
| Availability of Facilities / Infrastructure | 40192.962 | 0.428 | 0.799 |
| Family Support | 0.469 | 0.009 | 3.625 |
| Health Service Providers | 1.190 | 0.666 | 0.599 |
| Constant | 0.279 | 0.406 | 0.279 |

Based on table 4.18, it can be seen that family support has a significant effect on the use of early detection of cervical cancer with the IVA method. The multiple logistic regression model equation is: Utilization of the IVA method = $0.279 + 3.625$ (family support). The results of the analysis show that the Odds Ratio (OR) of the family support variable is 3.625, meaning that good family support has the opportunity to cause the use of the IVA method of 3.6 times after being controlled by supporters of age, education, knowledge, attitudes, availability of facilities and infrastructure and health service providers.

Discussion

Relationship between Age and Use of the IVA Method for Early Detection of Cervical Cancer

Based on the results of the study, it is known that there is a relationship between age and the use of early detection of cervical cancer in the IVA method, the obtained p-value = $0.049 < p = 0.05$. The results of the analysis obtained a PR value of 0.351 which means that age has a 0.3 times greater chance of utilizing the early IVA method of cervical cancer screening.

The Relationship of Education with the Utilization of the Early Detection of Cervical Cancer by the IVA Method

Based on the results of the analysis, it is known that the value of p-value = $0.141 > p = 0.05$, so it can be concluded that there is no relationship between education and the use of early detection of cervical cancer in the IVA method at Baktiraja Health Center, Humbang Hasundutan Regency in 2021. The results of the analysis obtained a PR value of 0.468 which meaning that education is 0.3 times more likely to take advantage of early cervical cancer screening by the IVA method.

The results of this study are not following Green's theory that the education factor has a major influence on health behaviour. This is possible because the level of higher education

is not followed by providing knowledge about early detection of cervical cancer by the IVA method.

Women with higher education do not necessarily have better health knowledge so that they do not necessarily do IVA examinations than women with low education but have good knowledge. Also, public awareness to seek treatment before the disease is felt is still low.

The Relationship between Knowledge and the Utilization of the Early Detection of Cervical Cancer by the IVA Method

Based on the results of the analysis to determine the relationship between knowledge and the use of early detection of cervical cancer in the IVA method, it was found that $p\text{-value} = 0.015 < p = 0.05$, so it can be concluded that there is a relationship between knowledge and the use of early detection of cervical cancer in the IVA method at Baktiraja Health Center, Humbang Hasundutan District 2021. The results of the analysis obtained a PR value of 0.276 which means that knowledge has a 0.2 times greater opportunity to take advantage of early cervical cancer screening by the IVA method.

This research is supported by research by Worosuprojo et al (2017) which states that there is a significant relationship between knowledge and behaviour of IVA examination at Puskesmas Blotoo, Mojokerto City with a value of $p = 0.000 < \alpha = 0.05$. The factors that affect knowledge include education, information or mass media, work, environment, experience, age, social, culture and economy. Factors that influence knowledge include:

1) Education

Education is a process of changing the attitudes and behaviour of a person or group and is an effort to mature humans through teaching and training efforts (Ayu, 2016). The higher a person's education, the more able they to receive and understand information so that the knowledge they have is also higher (Ninik, 2017).

2) Information / Media

Information is a technique for collecting, preparing, storing, and manipulating, announcing, analyzing and disseminating information for a specific purpose. Information affects someone's knowledge if they often get information about a lesson it will increase their knowledge and insight, while someone who does not often receive information will not increase their knowledge and insight.

3) Social, Cultural and Economic

A person's tradition or culture that is carried out without reasoning whether what is done is good or bad will increase his knowledge even though he does not do it. The economic status will also determine the availability of facilities needed for certain activities so that economic status will affect one's knowledge. A person who has a good socio-culture will have good knowledge, but if the socio-culture is not good then his knowledge will be not good. The economic status of a person affects the level of knowledge because someone who has an economic level is below average so that someone will find it difficult to fulfil the facilities needed to increase knowledge.

4) Environment

The environment affects the process of entering knowledge into individuals because of reciprocal interactions or not which will be responded to as knowledge by individuals. In a

good environment, the knowledge obtained will be good, but if the environment is not good, the knowledge obtained will also be not good.

5) Experience

Experience can be obtained from the experience of others and oneself so that the experience that has been gained can increase one's knowledge. A person's experience of a problem will make that person know how to solve the problem from previous experiences that have been experienced so that the experience gained can be used as knowledge when having the same problem.

6) Age

As you get older, your comprehension and mindset will be more developed so that the knowledge gained will also improve and increase.

7) Work

The work environment can make a person gain experience and knowledge either directly or indirectly.

The relationship between the availability of facilities and infrastructure with the use of the IVA method for early detection of cervical cancer

Facilities and infrastructure are facilities provided by health service providers to support their service activities. Health facilities are one type of public facility needed by the community which functions to improve the health status of the community so that it will affect the activities of a city or region in increasing the smooth running of activities and productivity. The availability of health service facilities will affect the quality of health condition and the existing health status in the working area.

Health facilities are places used to carry out health efforts (Law No.23 of 2009 Article 1), health facilities include medical centres, public health centres and general and special hospitals, medical practices and others. Based on the results of the study, it is known that $p\text{-value} = 0.031 < p = 0.05$, so it can be concluded that there is a relationship between the availability of facilities and infrastructure with the use of early detection of cervical cancer in the IVA method at Baktiraja Health Center, Humbang Hasundutan Regency in 2021. The analysis results obtained a PR value of 0.031 which means that the availability of facilities and infrastructure has a 0.3 times greater chance of utilizing the IVA method of early cervical cancer screening.

Relationship between Health-Related Skills and the Utilization of the IVA Method for Early Detection of Cervical Cancer

Based on the results of the analysis to determine the relationship between health-related skills and the use of early detection of cervical cancer, the IVA method was obtained $p\text{-value} = 0.944 > p = 0.05$, so it can be concluded that there is no relationship between health-related skills and the use of early detection of cervical cancer in the IVA method at Baktiraja Puskesmas Humbang Hasundutan Regency in 2021. The results of the analysis obtained a PR value of 0.944, which means that health-related skills are 0.9 times more likely to take advantage of early cervical cancer screening using the IVA method.

The Relationship between Family Support and the Use of the IVA Method for Early Detection of Cervical Cancer

Women who get good social support (support from partners, family, friends, or community leaders) tend to do early detection of cervical cancer. If a woman does not have the closest group, it will indirectly affect the woman's behaviour. The husband is the closest person to the mother in interacting and making decisions. Based on the results of research, the support of a husband or partner does not affect a person's behaviour in the early detection of cervical cancer. Even though they have the support of their husbands, if the mother does not want to or feels that they are not ready, it will ultimately affect the mother's decision to do early detection of cervical cancer and if the mother has enough information, knowledge, and high motivation to carry out IVA examinations, of course, this will also affect the mother's behaviour.

Women who get good social support (support from their partners, family, friends, or community leaders) tend to do early detection of cervical cancer. If a woman does not have the closest group, it will indirectly affect the woman's behaviour. The husband is the closest person to the mother in interacting and making decisions. Based on the results of research, the support of a husband or partner does not affect a person's behaviour in the early detection of cervical cancer. Even though they have the support of their husbands, if the mother does not want to or feels that they are not ready, it will ultimately affect the mother's decision to do early detection of cervical cancer and if the mother has enough information, knowledge, and high motivation to carry out IVA examinations, of course, this will also affect the mother's behaviour.

Relationship between Healthcare Providers and the Use of the IVA Method of Cervical Cancer Early Detection

Health services are the use of health service facilities provided either in the form of outpatient care, inpatient care, visits officers/personnel or other forms of activities from the utilization of these health services. Based on the results of the analysis, it is known that the $p\text{-value} = 0.049 < p = 0.05$, so it can be concluded that there is a relationship between health service providers and the use of early detection of cervical cancer in the IVA method at Baktiraja Health Center, Humbang Hasundutan Regency in 2021. The analysis results obtained a PR value of 0.049, which means that health care providers are 0.1 times more likely to take advantage of early cervical cancer screening with the IVA method.

Utilization of health services is most closely related to when a person needs health services and to what extent the effectiveness of these services is. When talking about when they need health services, generally everyone will answer if they feel there is a problem with their health (illness). One can never know when it is sick, and no one can answer with certainty. This provides information that health care consumers are always faced with uncertainty problems.

Conclusions and Suggestions

Based on data interpretation, it concludes;

- 1) There is a relationship between age and the use of early detection of cervical cancer by the IVA method, but there is no relationship between education and the use of early detection of cervical cancer by the IVA method
- 2) There is a relationship between knowledge and the use of early detection of cervical cancer in the IVA method at Baktiraja Public Health Center, Humbang Hasundutan Regency in 2021. It found that the $p\text{-value} = 0.025 < p = 0.05$, that there is a relationship between attitudes and the use of early detection of cervical cancer in the IVA method at the Baktiraja Health Center, Humbang Hasundutan Regency in 2021.
- 3) There is a relationship between the availability of facilities and infrastructure with the use of early detection of cervical cancer in the IVA method; in contrast, there is no relationship between health-related skills and the use of early detection of cervical cancer in the IVA method
- 4) There is a relationship between family support and the use of early detection of cervical cancer by the IVA method, also there is a relationship between health service providers and the use of early detection of cervical cancer by the IVA method
- 5) The variable that most influences the utilization of early detection of cervical cancer in the IVA method is family support with a value of $p = 0.009 < p = 0.05$. The Odds Ratio (OR) value of the family support variable is 3.625.

Suggestion

Researchers can then examine other factors besides age, education, knowledge, attitudes, health-related skills, family support, and health service providers on the use of early detection of cervical cancer in the IVA method.

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AFFECTING FACTORS THE UTILIZATION OF EARLY DETECTION EXAMINATION OF CERVICAL CANCER WITH VISUAL INSPECTION METHOD OF ACETIC ACID

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ABSTRACT Cervical cancer is the most common cancer in women in developing countries, and it found three-quarters of the estimated half a million new cases occur each year. Cervical cancer can be prevented by early detection. One of the early detection methods is suitable for developing countries is the Visual Inspection method of Acetic Acid. With a cross-sectional study approach it sought the affecting factors that influence the use of IVA method early cervical cancer screening at Baktiraja Health Center. It involved women of childbearing age 0-50 years, the number of samples is 83 respondents. The data collection was based on the questionnaire. The results showed that there was a relationship between age ($p = 0.049$), knowledge ($p = 0.015$), attitude ($p = 0.025$), availability of facilities and infrastructure ($p = 0.031$), family support ($p = 0.009$) and health service providers ($p = 0.049$) with the use of the IVA method. Meanwhile, there is no relationship between education ($p = 0.141$), health-related skills ($p = 0.944$). The most dominant variable is family support with a value of $p = 0.009 < p = 0.05$, with an Odds Ratio (OR) value of 3,625. Management of the Baktiraja Community Health Center is expected to improve reproductive health services for women of childbearing age with early detection of cancer cervix with the Inspection Method with Visual Acetic Acid (IVA).

Keywords: Cervical Cancer; Early Detection; Inspection Method; Acetic Acid

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