

# The Relationship Of Knowledge, Education, And Family Support With The Iva Examination In The Working Area Of The Sido Mulyo Health Center, Banyuasin Regency In 2021

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**ABSTRACT**

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Cervical cancer is most often experienced by women with an estimated 570.00 new cases in 2018. Representing 6.6% of all female cancers, approximately 90% of deaths from cervical cancer occur in low-and middle-income countries (WHO,2018 ).The purpose of this study was to determine the relationship between knowledge, education and family support with IVA examination in the working area of sido mulyo public health center, Banyuasin regency in 2021. This type of research was Qualitative using anAnalytical Survey with a Cross-Sectional approach. The population in this study were women of childbearing age (WUS) as many as 693 respondents and with a total sample of 70 respondents. The data analysis was carried out in two stages namely univariate and bivariate analysis with Chi-Square statistical test. The result of the study found that there was a relationship between knowledge ( p-value = 0.048), education (p-value=0.002) and family support (p-value=0.047) with IVAexamination in the work area of the sido mulyo health center, Banyuasin regency in 2021.It is hoped can be an illustration of the health center to be able to further improve counseling or provide information to WUS.

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## 1. Introduction

Reproductive health that is getting enough attention is reproductive health in women. Many problems related to reproductive health, one of which is cervical cancer which is the number two killer cancer type after breast cancer in women [1].

According to the WHO in 2018 cervical cancer was the most common in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers, around 90% of deaths from cervical cancer occurred in low- and middle-income countries [2]. The incidence of cancer in Indonesia, which is 136.2/100,000 population, is at number 8 in Southeast Asia, while in Asia it is at number 23 [3]. The highest incidence rate for women is breast cancer, which is 42.1 per 100,000 population with an average death of 17 per 100,000 population, followed by cervical cancer at 23.4 per 100,000 population with an average death rate of 13.9 per 100,000 population. ]

For the prevention and control of cancer in Indonesia, especially the two most common types of cancer in Indonesia, namely breast and cervical cancer, the government has made various efforts, including early detection of breast cancer and cervical cancer in women aged 30-50 years using the Clinical Breast Examination method. (SADANIS) for the breast and Visual Inspection with Acetic Acid (IVA) for the cervix[3].

Currently, the coverage of screening for early detection of cervical cancer in Indonesia through Pap smears and IVA is still very low even though the coverage of effective screening in reducing morbidity and mortality due to cervical cancer is 85% [4]. This shows that knowledge and public attitudes about cervical cancer are still relatively low, so public awareness for cervical cancer

screening is also low. [4]. VIA is an examination of the cervix directly (with the naked eye) after administration of 3-5% acetic acid (vinegar) [5]. In 2018 in South Sumatra Province, of the total female population aged 30-50 years as many as 1,255,483 people, as many as 67,125 people (5.3%) had cervical and breast examinations [6]. In Banyuasin Regency in 2018, of the total female population aged 30-50 years as many as 125,766 people, namely 8,432 people (6.7%) who did cervical and breast examinations [6]. While at the Sido Mulyo Health Center in 2018 there were 693 women aged 30-50 years, and only 240 people (35%) who did the IVA test and breast examination [7]. This shows that public knowledge about cervical cancer is still low and the behavior of the community to carry out VIA examinations is also low [8].

Based on the problems raised above, the authors are interested in researching "The Relationship of Knowledge, Education, and Family Support with VIA Examination in the Work Area of the Sido Mulyo Health Center, Banyuasin Regency in 2021".

## 2. Research methods

This study is a quantitative study with an analytical survey research method using a cross sectional survey design, the study was conducted in August 2021, the sample of this study was WUS in the working area of the Sido Mulyo Health Center. And the sample to be examined amounted to 70 WUS.

## 3. Research Results and Discussion

### 3.1 Research result

#### a. Univariate Analysis

TABEL 1  
FREQUENCY DISTRIBUTION BASED ON VIA EXAMINATION AT THE SIDO MULYO HEALTH CENTER, BANYUASIN REGENCY IN 2021

IVA Examination	Frequency	Percentage
YES	28	40.0
NO	42	60.0
Total	70	100.0

Based on table 1 above, it can be seen that of the 70 respondents who took the IVA examination, 28 respondents (40.0%) were involved, while 42 respondents (60.0%).

TABEL 2  
FREQUENCY DISTRIBUTION BASED ON RESPONDENT'S KNOWLEDGE AT THE SIDOMULYO HEALTH CENTER, BANYUASIN REGENCY IN 2021

Mother's Knowledge	Frequency	Percentage
Well	22	31.4
Low	48	68.6
Total	70	100.0

Based on Table 2 above, it can be seen that of the 70 respondents who have good knowledge of 22 respondents (31.4%) while respondents who have less knowledge are 48 respondents (68.6%).

TABEL 3  
FREQUENCY DISTRIBUTION BASED ON RESPONDENT'S EDUCATION AT THE SIDO MULYO HEALTH CENTER, BANYUASIN REGENCY IN 2021

Mother's Education Category	Frequency	Percentage
Low education	26	37.1
higher education	44	62.9
Total	70	100.0

Based on table 3 above, it can be seen that from 70 respondents with higher education 26 respondents (37.1%) while respondents with low education were 44 respondents (62.9%).

TABEL 4  
FREQUENCY DISTRIBUTION BASED ON FAMILY SUPPORT AT THE SIDO MULYO HEALTH CENTER, BANYUASIN REGENCY IN 2021

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Family support	Frequency	Percentage
Support	24	34.3
Does not support	46	65.7
Total	70	100.0

Based on Table 4 above, it can be seen that of the 70 respondents whose families support them, 24 respondents (34.3%), while the respondents whose families do not support them are 46 respondents (65.7%).

## b. Bivariate Analysis

TABEL 5  
RELATIONSHIP BETWEEN KNOWLEDGE AND VIA EXAMINATION AT THE SIDO MULYO HEALTH CENTER, BANYUASIN REGENCY IN 2021

Knowledge	IVA Examination				Amount		p-Value	OR
	Yes		Not					
	n	%	n	%	n	%		
Well	15	68.2	7	31.8	22	31.4	0.003	5,768(1,920-17,333)
Not enough	13	27.1	35	72.9	48	68.6		
Total	28		42		70	100		

Based on table 5 above, it can be seen that, of the 22 respondents who had good knowledge and took the IVA examination there were 15 respondents (68.2%) and 7 respondents (31.8%) who did not take the IVA examination. And of the 48 respondents who lacked knowledge and took the IVA examination there were 13 people (27.1%) and 35 respondents who did not take the IVA examination (72.9%). From the Chi-square statistical test at the significance level of p-value = 0.05, it was obtained that p-value = 0.003 which means that there is a relationship between knowledge and VIA examination, so the hypothesis that there is a relationship between knowledge and VIA examination is statistically proven.

The results of the Odds Ratio obtained a value of 5.768 which means that respondents who have good knowledge have a 5.768 times greater chance of getting an IVA examination compared to respondents with less knowledge.

TABEL 6  
RELATIONSHIP BETWEEN EDUCATION AND VIA EXAMINATION AT THE SIDOMULYO HEALTH CENTER, BANYUASIN REGENCY IN 2021

Education	IVA Examination				Amount		p-Value	OR
	Yes		Not					
	n	%	n	%	n	%		
Tall	17	65.4	9	34.6	26	37.1	0.002	5,667(1,968-16,316)
Low	11	25.0	33	75.0	44	62.9		
Total	28		42		70	100		

Based on table 6 above, it can be seen that, of the 26 respondents who had higher education and took the IVA examination there were 17 respondents (65.4%) and 9 respondents who did not take the IVA examination (34.6%). And from 44 respondents who had low education and took the IVA examination, there were 11 (25.0%) and 33 respondents who did not take the IVA examination (75.0%). P value = 0.002 which means there is a relationship between education and VIA examination so that the hypothesis which states that there is a relationship between education and VIA examination is statistically proven.

The results of the Odds Ratio obtained a value of 5.667 which means that respondents with higher education have a 5,667 times greater chance of getting an IVA examination compared to respondents with low knowledge.

TABEL 7  
RELATIONSHIP BETWEEN FAMILY SUPPORT AND VIA EXAMINATION AT THE SIDOMULYO HEALTH CENTER, BANYUASIN REGENCY IN 2021

Family	IVA Examination	p-Value	OR
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support	Yes		Not		Amount			
	n	%	n	%	n	%		
Support	15	62.5	9	37.5	24	34.3		
Does not support	13	28.3	33	71.7	46	65.7	0.012	4,231 (1,486-12,046)
Total	28		42		70	100		

Based on table 7 above, it can be seen that, of the 24 respondents whose families supported and participated in the VIA examination, there were 15 respondents (62.5%) and 9 respondents (37.5%). And from 46 respondents whose families did not support and took the IVA examination there were 13 people (28.3%) and 33 respondents who did not take the IVA examination (71.7%). From the Chi-square statistical test at the significance level of p-value = 0.05, the P-value = 0.012, which means that there is a relationship between family support and VIA examination, so the hypothesis that there is a relationship between family support and VIA examination is statistically proven.

The results of the Odds Ratio obtained a value of 4.231 which means that respondents whose families support it are 4,231 times more likely to get an IVA examination compared to respondents whose families do not support it.

### 3.2 Discussion

#### 1. Knowledge Relationship with VIA examination

Based on the univariate analysis, it can be seen that of the 70 respondents who have good knowledge of 22 respondents (31.4%) while respondents who have less knowledge are 48 respondents (68.6%).

Based on the bivariate analysis, it can be seen that, of the 22 respondents who had good knowledge and participated in the VIA examination, there were 15 respondents (68.2%) and 7 respondents (31.8%) who did not take the IVA examination. And of the 48 respondents who lacked knowledge and took the IVA examination there were 13 people (27.1%) and 35 respondents who did not take the IVA examination (72.9%).

From the Chi-square statistical test at the significance level of p-value = 0.05, it was obtained that p-value = 0.003 which means that there is a relationship between knowledge and VIA examination, so the hypothesis that there is a relationship between knowledge and VIA examination is statistically proven.

Based on previous research conducted by Mirayashi (2014) which showed that most of the respondents were in the category of moderate level of knowledge, namely 47 (53.4%) respondents from 88 respondents. It can be assumed that women of childbearing age know enough about acid visual inspection. acetate (IVA) which is categorized as having sufficient knowledge and it is stated that there is a significant relationship between knowledge and VIA examination.

This is in line with research conducted by Sari Purwanti, 2020 in the Poltekes Journal of the Ministry of Health of Pangkal Pinang City which states that the level of knowledge of women of childbearing age is in the good category, namely 15 respondents (30%), sufficient category is 29 respondents (58%), and the category is sufficient. less, namely 6 respondents (12%) very influential with participation in the VIA examination with the results of the Kendall-tau correlation test, the results obtained sig 0.000 (<0.01) meaning there is a significant relationship between knowledge and VIA examination.

The researcher assumes that knowledge greatly influences the participation of VIA examinations in WUS, because with good knowledge WUS can clearly understand the dangers of cervical cancer and the importance of VIA examinations and the level of knowledge possessed by a person will greatly affect the ability to understand and believe in the information obtained and of course has many positive aspects.

#### 2. Relationship of Education with IVA Examination

Based on univariate analysis, it can be seen that of the 70 respondents with higher education, 26 respondents (37.1%) while respondents with low education were 44 respondents (62.9%).

Based on the bivariate analysis, it can be seen that, of the 26 respondents who had higher education and attended the VIA examination, there were 17 respondents (65.4%) and 9 respondents (34.6%). And of the 44 respondents who had low education and took the IVA examination there were 11 people (25.0%) and 33 respondents who did not take the IVA examination (75.0%).

From the Chi-square statistical test at the significance level of p-value = 0.05, it was obtained that P-value = 0.002, which means that there is a relationship between education and VIA

examination, so the hypothesis which states that there is a relationship between education and VIA examination is statistically proven. The results of the Odds Ratio obtained a value of 5.667 which means that respondents with higher education have a 5,667 times greater chance of getting an IVA examination compared to respondents with low knowledge.

This is in line with research conducted by Lilik Hanifa, et al in the Indonesian Midwifery Journal, 2019 with the results of the distribution of education levels in Kauman village mostly having high school education, as many as 19 respondents (50%). The level of knowledge of housewives about Pap smears is mostly in the fairly good category, as many as 18 respondents (47%). The results of the analysis of the relationship between education level and knowledge of housewives about Pap smears obtained a value of (+) 0.038, which means  $p < 0.05$ . Conclusion: There is a significant relationship between the level of education and the knowledge of housewives about Pap smears in Kauman Village, Tangen District, Sragen Regency.

The researcher assumes that higher education is easier to absorb information so that knowledge increases and then is quick to take a stance, while a low level of education will be more difficult to digest the message or information conveyed and hinder the development of attitudes and decision makers.

### **3. Relationship between Family Support and IVA Examination**

Based on the univariate analysis above, it can be seen that of the 70 respondents whose families support them, 24 respondents (34.3%), while respondents whose families do not support them are 33 respondents (65.7%).

Based on the bivariate analysis, it can be seen that, of the 24 respondents whose families supported and participated in the IVA examination, there were 15 respondents (62.5%) and 9 respondents (37.5%). And from 46 respondents whose families did not support and took the IVA examination there were 13 people (28.3%) and 33 respondents who did not take the IVA examination (71.7%).

From the Chi-square statistical test at the significance level of  $p\text{-value} = 0.05$ , the  $P\text{-value} = 0.012$ , which means that there is a relationship between family support and VIA examination, so the hypothesis that there is a relationship between family support and VIA examination is statistically proven. The results of the Odds Ratio obtained a value of 4.231, which means that respondents whose families support them are 4,231 times more likely to get an IVA examination compared to respondents whose families do not support them.

Another study was also conducted by Hidayani et al 2016 entitled Relationship between husband's support and support from health workers with VIA examination with the results of the author's research that the most women of childbearing age had never had an IVA examination, namely 34 (59.6%), the most poor husband support was 29 (50.9%) and support from health workers which is 31 (54.4%). The conclusion is that there is a relationship between husband's support and VIA examination behavior, with  $P\text{-value} = 0.016$  ( $P < 0.05$ ) [9].

This is in line with research conducted by Lilik Hanifah, et al in the Indonesian Journal of Midwifery, 2018 that the results of this study indicate that there is a significant relationship between family support and early detection behavior of cervical cancer with the level of closeness in the medium category. This is based on statistical tests with the resulting  $p\text{-value}$  of 0.000 ( $p\text{-value} < 0.05$ ) and the contingency coefficient of 0.420. This means that there is a positive relationship between family support and the behavior of early detection of cervical cancer [8].

The researcher assumes that WUS who have family support will have a greater chance of taking part in the VIA examination, because with the support provided by the family it will encourage WUS interest and confidence in the importance of the VIA examination and with family support. The family can be a strong motivator if they always take the time to accompany or deliver to health services and remind mothers to do early detection of cervical cancer. Women who get good social support tend to do early detection of cervical cancer because they get a strong influence from those closest to them so that they tend to make women more motivated.

### **4. Conclusion**

There is a relationship between knowledge, education and family support simultaneously with the VIA examination at the Sidomulyo Health Center, Banyuasin Regency in 2021.

## References

- [1] Irwanto, Koes (2015). Biologi Reproduksi. Bandung: Alfabeta
- [2] WHO, 2018
- [3] Kemenkes, (2019). Profil Kesehatan Indonesia Tahun 2018. Jakarta: Katalog dalam terbitan Kementerian RI
- [4] Sulistiowati E & Sirait, A.M (2014). Pengetahuan Tentang Factor Risiko, Perilaku, Dan Deteksi Dini Kanker Serviks Dengan Inspeksi Visual Asam Asetat (IVA) Pada Wanita Di Kecamatan Bogor. Badan Penelitian Dan Pengembangan Kesehatan
- [5] Dewi, N.M.S, (2013). Kapita Salekta Kuesioner Pengetahuan Dan Sikap Dalam Penelitian Kesehatan, Jakarta: Salemba Medika
- [6] Dinkes Provinsi Sumatera Selatan, 2019. Profil Kesehatan Tahun 2018. Sumatera Selatan: Dinas Kesehatan Provinsi Sumatera Selatan
- [7] Dinas Kesehatan Kabupaten Banyuasin, 2021. Profil Kesehatan Tahun 2018. Banyuasin: Dinas Kesehatan Kabupaten Banyuasin
- [8] Lilik Hanifa,dkk dalam Jurnal Kebidanan Indonesia, 2019
- [9] Hidayani,dkk 2018. Faktor-Faktor Yang Mempengaruhi Perilaku Pemeriksaan IVA Pada Wanita Usia Subur Di Desa Penyak Kecamatan Koba Kabupaten Bangka Tengah Tahun 2017