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Determinant Factors of Behavior of Women of Reproductive Age on Early Detection of Cervic Cancer

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Abstract
Introduction: *Cervical cancer is the second most common problem in Indonesia with the main cause of death for women globally. Cervical cancer itself can be detected using the IVA examination method in women of reproductive age.* ***Objective:*** *Identify the determinants of the behavior of women of reproductive age towards screening for early detection of cervical cancer in Muara Kaman Ulu Village in 2023.* ***Method:*** *This research is a quantitative survey method with a cross-sectional approach. The population in this study were women of reproductive age who met the inclusion criteria. The sample used was 85 respondents with purposive sampling technique.* ***Results and Discussion:*** *The results of the analysis showed that there was a significant relationship between age, attitude, knowledge, family support, and socio-culture on the behavior of early detection of cervical cancer with a p value < α (0.05). Age, attitude, knowledge, family support and socio-culture are factors related to the behavior of women of childbearing age to carry out screening for early detection of cervical cancer.* ***Conclusion:*** *There is a relationship between age, attitude, knowledge, family support and socio-culture towards the behavior of women of reproductive age towards early detection of cervical cancer in Muara Kaman Ulu Village in 2023.*
Keywords: Cervical Cancer; IVA Examination; Behavior of Women of Reproductive Age;

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Introduction

According to *World Health Organization* (WHO), cervical cancer is the fourth most common cancer in women, accounting for about 570,000 new cases in 2018 and 6.6% of all cancers in women globally. In low- and middle-income countries, cancer deaths account for about 90% of all deaths (Raidanti & Wijayanti, 2022). Cervical cancer cases are the second most common type of cancer in Indonesia according to data *Global Cancer Observatory* 2018 from *World Health Organization* (WHO), with 32,469 cases or 9.3% of all cases (Juanda & Kesuma, 2015)

According to Riskesdas statistics, the prevalence of tumor/cancer in Indonesia increased from 1.4 per 1000 people in 2013 to 1.79 per 1000 people in 2018 (Renovated & Retrieved 2020). With 4.86 cases per 1000 population, Yogyakarta Special Region province has the largest cancer prevalence, followed by West Sumatra (2.47 cases per 1000 population) and Gorontalo (2.44 cases per 1000 population) (Shalikhah et al., 2021). According to Cancer Incidence and Death Statistics Worldwide and by region (2018) Indonesia has a cancer incidence rate of 136.2 per 100,000 people, placing it eighth in Southeast Asia and twenty-third overall in Asia

Until 2021, the IVA method has been used to detect cervical cancer in 2,827,177 women aged 30-50 years or 6.83% of the target (Lestary et al., 2023). Bangka Belitung Islands Province, has the highest early detection rate (30.24%), followed by South Sumatra (25.16%), and West Nusa Tenggara (23.22%). Papua has the lowest early diagnosis coverage (0.03%), followed by West Papua (0.56%), and Aceh (0.57%). With an early detection coverage of 2.68%, East Kalimantan Province ranks in the bottom ten of all provinces in Indonesia. Cervical cancer morbidity and mortality are expected to increase in provinces with low early detection coverage (Health Profile of the Republic of Indonesia, 2020).

Based on data on early detection of cervical cancer in women aged 30-50 years in East Kalimantan alone, for 2020 there were 47 positive IVA cases. Data from Kutai Kartanegara Regency that participated in early detection activities for IVA examination, the number of people examined was 107 people or 0.1% of the target number of 111,450 with positive IVA results of 5 people or 4.7% (Health Profile of the East Kalimantan Health Office, 2021).

In 2019, Muara Kaman Health Center examination data for early detection of cervical cancer found two positive cases with a percentage of 3.1%. There were no positive early detection checks through IVA tests in 2020 and 2021. Muara Kaman Health Center hopes to increase the number of IVA test takers next year as part of the main efforts to prevent and control non-communicable diseases (Muara Kaman Health Center Health Profile, 2021).

To increase the coverage of women who carry out cervical cancer screening with the IVA method, it is necessary to conduct research to determine the Determinants of Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer in Muara Kaman Ulu Village in 2023 so that it can increase the coverage and morbidity and death rates due to cervical cancer can be prevented early.

The purpose of this study is to determine the Determinants of Behavior of Women of Childbearing Age in Conducting Early Detection of Cervical Cancer Examination in Muara

Kaman Ulu Village in 2023 to increase the number of visits by women of childbearing age to conduct cervical cancer early detection screening and increase the coverage rate

Method

This study used a type of quantitative research survey method with a cross-sectional approach. This research is a study in which independent variables and dependent variables are measured at the same time.

The population of this study was all women of childbearing age in Muara Kaman Ulu Village, Muara Kaman District, Kutai Kartanegara, East Kalimantan with a target number of 719 people with the sampling technique used is Purposive Sampling using the Lem show formula with a sample of 85 respondents. The inclusion criteria for respondents are aged 15-49 years, married, have an address in Muara Kaman Ulu Village and are willing to be respondents. The exclusion criteria are women of childbearing age who have undergone treatment for cervical cancer and cannot read and write. Univariate and bivariate analysis with chi square statistical test using SPSS software.

Result and Discussion

Result

Univariate Analysis

Table 1
Frequency Distribution of Characteristics of Women of Childbearing Age for Early Detection of Cervical Cancer in Muara Kaman Ulu Village in 2023

No.	Variable	Frequency (f)	Percentage (%)
1	Age		
	Low Risk	20	23,5
	High Risk	65	76,5
2	Parnitas		
	Primipara	28	32,9
	Multipara	47	55,3
	Grade Multipara	10	11,8
3	Education		
	Low	42	49,4
	Tall	43	50,6
4	Income		
	<UMR	39	45,9
	>UMR	46	54,1

Source: Data Primer 2023

Based on table 1 above, of as many as 85 women of childbearing age in Muara Kaman Ulu Village in 2023, most women of childbearing age are at high-risk age of 76.5%, negative daily attitudes of 52.9%, history of multiparity of 55.3%, higher education of 51.8% and have an income of >UMR of 54.1%.

Table 2
Frequency Distribution of Determining Characteristics Between Age, Attitude, Knowledge, Husband/Family Support and Socio-Culture with the Behavior of Women of Childbearing Age towards Early Detection of Cervical Cancer in Muara Kaman Ulu Village in 2023

No.	Variable	Frequency (f)	Percentage (%)
1	Behavior		
	a. Check	47	55,3
	b. No Check	38	44,7
2	Age		
	a. Low Risk	20	23,5
	b. High Risk	65	76,5
3	Attitude		
	a. Positive	44	51,8
	b. Negative	41	48,2
4	Knowledge		
	a. Good	41	48,5
	b. Enough	37	43,5
	c. Less	7	8,2
5	Husband/Family Support		
	a. Support	41	48,2
	b. Less Support	44	51,8
6	Socio-Cultural		
	a. Good	40	47,1
	b. Less	45	52,9

Source: Data Primer 2023

Based on table 2 above, it can be seen that of as many as 85 women of childbearing age in Muara Kaman Ulu Village in 2023, the majority of women of childbearing age carry out early detection of cervical cancer as much as 55.3%, high risk age of 76.5%, negative daily attitudes as much as 52.9%, have good knowledge of 48.2%, families lack support or early detection examination of cervical cancer as much as 51.8%, Socio-cultural application is less as much as 52.9%.

Table 3

The Relationship Between Age, Attitude, Knowledge, Husband/Family Support and Socio-Culture with the Behavior of Women of Childbearing Age towards Early Detection of Cervical Cancer in Muara Kaman Ulu Village in 2023

No.	Free Variable	Behavior of women of childbearing age				p-value
		Check		No Check		
		n	%	n	%	
1	Age					
	a. Low Risk	15	17,6	5	5,9	0,043
	b. High Risk	32	37,6	33	38,8	
2	Attitude					
	a. Positive	37	43,5	3	3,5	0,000
	b. Negative	10	11,8	35	41,2	
3	Knowledge					
	a. Good	33	38,8	8	9,4	0,000
	b. Sufficient	10	11,8	27	31,8	
	c. Less	4	4,7	3	3,5	
4	Husband/Family Support					
	a. Support	41	48,2	0	0	0,000
	b. Less Support	6	7,1	38	44,7	
5	Socio-Cultural					
	a. Good	36	42,4	4	4,7	0,000
	b. Less	11	12,9	34	40	

Source: Data Primer 2023

Based on table 3 above, the results of the analysis of the relationship between age and cervical cancer early detection behavior based on the Chi-Square test obtained ρ (0.043) < α (0.05), which means that statistically there is an age relationship with cervical cancer early detection behavior. The results of the analysis of the relationship between attitude and cervical cancer early detection behavior based on the Chi-Square test obtained a value of ρ (0.000) < α (0.05), which means that statistically there is a relationship between attitude and cervical cancer early detection behavior.

The results of the analysis of the relationship of knowledge with cervical cancer early detection behavior based on the Chi-Square test obtained a value of ρ (0.000) < α (0.05), which means that statistically there is a relationship between knowledge and cervical cancer early detection behavior. The results of the analysis of the relationship between husband / family support with cervical cancer early detection behavior based on the Chi-Square test obtained ρ (0.000) < α (0.05), which means statistically the relationship between family support and cervical cancer early detection behavior.

The results of the analysis of socio-cultural relations with cervical cancer early detection behavior based on the Chi-Square test obtained ρ (0.000) < α (0.05) values, which means that statistically there is a socio-cultural relationship with cervical cancer early detection behavior.

Discussion

Frequency Distribution of Characteristics with the Behavior of Women of Childbearing Age towards Early Detection of Cervical Cancer in Muara Kaman Ulu Village in 2023

It was found that of the 85 women of childbearing age in Muara Kaman Ulu Village in 2023, the majority of women of childbearing age were at high risk age of 76.5%, negative daily attitudes of 52.9%, history of multiparity of 55.3%, higher education of 51.8% and had an income of >UMR of 54.1%.

Frequency distribution of determining factors between age, attitudes, knowledge, family support and socio-cultural behavior of women of childbearing age towards early detection of cervical cancer in Muara Kaman Ulu Village in 2023

It was found that from as many as 85 women of childbearing age in Muara Kaman Ulu Village in 2023, the majority of women of childbearing age carried out early detection of cervical cancer as much as 55.3%, high risk age of 76.5%, negative daily attitudes as much as 52.9%, had good knowledge of 48.2%, families were less supportive or early detection examination of cervical cancer as much as 51.8%, socio-cultural application was less as much as 52.9%.

The relationship between age, attitude, knowledge, husband/family support and socio-culture with the behavior of women of childbearing age towards early detection of cervical cancer

The results of the relationship between age and early detection behavior of cervical cancer based on the Chi-Square test obtained the value of ρ (0.043) < α (0.05), which means that statistically there is a relationship between age and early detection behavior of cervical cancer. Research results (Riawati, 2019) There were 234 respondents who had not done IVA examination, of which 128 respondents had low knowledge, 207 respondents did not get husband support, 135 respondents had negative attitudes, and 145 respondents had never received health education about IVA tests.

The results of the analysis of the relationship between attitude and cervical cancer early detection behavior based on the Chi-Square test obtained a value of ρ (0.000) < α (0.05), which means that statistically there is a relationship between attitude and cervical cancer early detection behavior. The attitude of women of childbearing age in this study is contrary to the actions taken. A positive attitude towards health values will not always manifest itself in concrete actions (Notoatmojo 2012) at (Putri et al., 2016)

The cause of women of childbearing age who have an attitude of agreeing but have never done IVA is because they will do IVA examination if there are family or friends affected by cervical cancer and do IVA examination enough 1 time in a lifetime (Pusparini et al., 2019). Not all women are positive about cervical cancer early detection because the attitude will manifest in a concrete action depending on the situation at that time (Wantini & Indrayani, 2019)

The results of the analysis of the relationship of knowledge with cervical cancer early detection behavior based on the Chi-Square test obtained a value of ρ (0.000) < α (0.05), which means that statistically there is a relationship between knowledge and cervical cancer early detection behavior. The results of this study are in line with research conducted by (Sukmawati et al., 2020) that there is a significant relationship between EFA knowledge and IVA participation.

The results of the analysis of the relationship between family support and cervical cancer early detection behavior based on the Chi-Square test obtained a value of ρ (0.000) < α (0.05), which means statistically the relationship between family support and cervical cancer early detection behavior. The results of this study are comparable to the research conducted by (Sihombing & Windiyaningsih, 2016) which found that the dominant factor in IVA screening in women of childbearing age was husband support with thirteen times the risk of having an IVA test compared to those not supported by her husband.

The results of the analysis of socio-cultural relationships with cervical cancer early detection behavior based on the Chi-Square test obtained ρ (0.000) < α (0.05) values, which means that statistically there is a socio-cultural relationship with cervical cancer early detection behavior.

The culture that supports most of the 47 (56.0%) has had IVA screening while 24 women of childbearing age with a culture that does not support most of the 17 women of childbearing age (70.8%) have never had IVA screening. This is supported by Notoatmojo's (2012) theory that culture can encourage or inhibit mothers from checking into health services.

Conclusion

The frequency distribution of characteristics that include age is the majority of women of childbearing age aged high risk by 76.5%, the majority parity status is multiparous status by 55.3%, the type of education is higher education by 51.8%, and has an income >UMR of 54.1%.

The determining factors between age are the majority of women of childbearing age aged high risk by 76.5%, negative daily attitudes by 52.9%, knowledge with good categories by 48.2%, husband/family support that is less supportive of cervical cancer early detection examination as much as 51.8% and less socio-cultural application as much as 52.9%.

There is a relationship between age with a p value of 0.043, attitudes with a p value of 0.000, knowledge with a p value of 0.000, family support with a p value of 0.000 and socio-culture with a p value of 0.000 with the behavior of women of childbearing age towards early detection of cervical cancer in Muara Kaman Ulu Village in 2023.

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