



# THE RELATIONSHIP BETWEEN FAMILY SUPPORT, HEALTH PROFESSIONAL SUPPORT, SOCIO-ECONOMIC AND DELAYS IN EARLY DETECTION OF CERVICAL CANCER PATIENTS AT HOSPITAL X IN MAKASSAR CITY

**Azriful<sup>1</sup>, Rizna Kumalasri<sup>1</sup>, & Dian Ihwana<sup>1</sup>**

<sup>1</sup>Universitas Islam Negeri Alauddin Makassar, Indonesia

Correspondence email: [azriful@uin-alauddin.ac.id](mailto:azriful@uin-alauddin.ac.id)

## ABSTRACT

Cervical cancer is a type of cancer that occurs in the female reproductive organs that connect the uterus and the vagina. Cervical cancer is caused by an infection with the Human Papillomavirus (HPV). The high mortality rate is due to the late diagnosis of most patients. This study aims to analyze the relationship between family support, health worker support, and socio-economic factors with the delay in the early detection of cervical cancer patients. The research design is quantitative with a cross-sectional approach. The data analysis methods are univariate and bivariate. The sample size is 119 respondents, selected by simple random sampling. The results show that there is a significant association between health worker support (p-value 0.017) and socio-economic status (p-value 0.015) with the delay in the early detection of cervical cancer patients, and there is no significant relationship between family support (p-value 0.684) and the delay in the early detection of cervical cancer patients at Dr. Wahidin Sudirohusodo Hospital. Early detection is a preventive measure that can be taken to avoid delays in the treatment of cervical cancer in women. If preventive measures are taken as early as possible, Indonesian women can be saved from the dangers of cervical cancer.

**Keywords:** Cervical cancer; early detection; delay in early detection; family support; health professional support; socio-economic

## 1. INTRODUCTION

Cervical cancer is one of the leading causes of cancer deaths in women worldwide. Cervical cancer occurs in the female reproductive organ, the cervix, which is the connecting channel between the vagina and the uterus. Unlike other types of cancer, cervical cancer is the only type

of cancer caused by infection, namely Human Papillomavirus (HPV) infection. Almost all women who have been sexually active are exposed to HPV but most HPV infections disappear within a short period of time without the need for treatment. In some women, HPV infection may persist and slowly affect the cells in the cervix. These changes are known as precancerous and if not detected at an early stage, can progress to cervical cancer (WHO, 2014).

Cervical cancer generally affects women of reproductive age, typically between 30 and 49 years. Based on data obtained from the Global Cancer Observatory in 2022, there are 662,301 cases of cervical cancer worldwide, with a death rate of 348,874. Meanwhile, in the Asian continent there are 397,043 cases of cervical cancer, with a death rate of 199,771. Most cases of cervical cancer are found in developing countries, one of which is Indonesia. This is certainly related to the limitations of screening in developing countries so that cervical cancer is not detected before the precancerous lesions that cause higher mortality rates. According to the Global Cancer Observatory in 2022, Indonesia ranks second in the number of cervical cancer cases. Where, the number of cases reached 36,964 with a mortality rate of 20,708 (Globocan, 2022).

According to a 2022 report from the Ministry of Health of the Republic of Indonesia, the high mortality rate of cervical cancer is attributed to delays in early detection, with nearly 70% of patients being diagnosed at an advanced stage. Efforts to reduce the mortality rate and treatment costs of cervical cancer can be achieved through the implementation of effective early detection measures (Kemenkes RI, 2022). Pap smear and Visual Inspection of Acetic Acid (VIA) methods are commonly used early detection methods in various countries, including Indonesia. Pap smear is a cervical cancer early detection method that involves taking a mucus sample from the inner vagina that is examined in the laboratory to check for the presence or absence of abnormal cells. Meanwhile, Acetic Acid Visual Inspection (VIA) is an early detection method by checking for abnormalities after the use of acetic acid solution (3-5% vinegar). If there are dysplasia cells (precancerous stage), a white spot will appear (Kemenkes, 2021).

In the Action Plan (RAP) of the P2PTM Program for 2020-2024, it is stated that various efforts have been undertaken in advocacy, partnerships, capacity building, and administrative arrangements for the prevention and control of NCDs. One of the programs implemented is the early detection of cervical cancer in women of childbearing age (WUS) between 30 and 50 years old at Puskesmas. The target is to achieve coverage of 80% or more of districts/cities conducting early detection of cervical cancer among women aged 30-50 years, across all 514 districts/cities (Ditjen P2P, 2022).

The number of cervical cancer cases in Indonesia is strongly influenced by the extent to which detection is carried out by healthcare facilities. According to the 2021 Indonesian Health Profile, only around 6.83% of women aged 30-50 years have undergone initial screening for cervical cancer using the Visual Inspection with Acetic Acid (VIA) method. Among these, approximately 27,837 positive VIA cases were identified. This data indicates a low level of achievement, falling far short of the target set by the Ministry of Health, which is at least 80% of the female population aged 30-50 years. This situation is a key factor contributing to the high number of cervical cancer cases in Indonesia.

Regionally, based on preliminary data from the South Sulawesi Provincial Health Office in 2022, a total of 392 health centers in South Sulawesi Province conducted early detection or screening using the VIA method, involving 29,506 (2.07%) women aged 30-50 years. The results showed 103 positive VIA cases, 45 suspected cancer cases, 420 cases of gynecological abnormalities, and 20 positive Pap smear cases. The report states that none of the districts or cities in South Sulawesi Province met the target set by the Ministry of Health (Dinas Kesehatan Provinsi Sulawesi Selatan, 2022).

Early detection is a preventive measure aimed at avoiding delays in addressing cervical cancer issues in women. The purpose of this study was to analyze the relationship between family support, health worker support, and socioeconomic factors with delays in early detection among cervical cancer patients at Hospital X in Makassar City.

## 2. METHODS

This research is quantitative in nature with a cross-sectional approach. The sample in this study was obtained using a probability sampling technique, meaning all populations had the same opportunity to be selected through the simple random sampling method, with a total of 119 samples. The data analysis included univariate and bivariate analyses to provide a general description and examine the relationship between dependent and independent variables using the chi-square test.

## 3. RESULTS AND DISCUSSION

Based on Table 1, it shows that out of 119 respondents, the dependent variable of delay in early detection of cervical cancer is more dominant among respondents in the late category (73.1%) or at stage  $\geq$ IIB during the initial examination and first referral at RS.X, compared to respondents in the non-late category (26.9%) or at stage  $<$ IIB during the initial examination and first referral at Hospital X.

Table 1: Distribution of Respondents Based on Delay in Early Detection of Cervical Cancer.

Cancer Stage	Frequency (n)	Percentage (%)
$\geq$ IIB (Late)	87	73.1
$<$ IIB (Not Late)	32	26.9
<b>Total</b>	<b>119</b>	<b>100%</b>

Source: Primary Data, 2023

Based on table 2, the majority of respondents were in the category of less family support (54.6%), less health worker support (65.6%), and income was in the low category (63%).

Table 2 Univariate Analysis of the Relationship between Family Support, Health Professional Support and Socioeconomics with Delay in Early Detection of Cervical Cancer Patients at Hospital X in Makassar City

Variable		Frequency (n)	Percentage (%)
Family support	Less	65	54.6
	Good	54	45.4
Health Professional Support	Less	78	65.6
	Good	41	34.5
Income	Low	75	63.0
	High	44	37.0

Source: Primary Data, 2023

Table 3 shows that there is an association between health worker support (p-value 0.017) and income (p-value 0.015) with delayed early detection. There is no association between family support (p-value 0.684) with delayed early detection.

Table 3: Bivariate Analysis of the Relationship between Family Support, Health Professional Support, Socioeconomics, and Delay in Early Detection of Cervical Cancer Patients at X Hospital inMakassar City

Variable		Delay in Early Detection				Total		p-value
		Late		Not Late		n	%	
		n	%	n	%			
Family support	Less	49	75.4	16	24.6	65	100	0.684
	Good	38	70.4	16	29.6	54	100	
Health Professional Support	Less	63	80.8	15	19.2	78	100	0.017
	Good	24	58.5	17	41.5	41	100	
Income	Low	61	81.3	14	18.7	75	100	0.015
	High	26	59.1	18	40.9	44	100	

Source: Primary Data, 2023

### Delay in Early Detection of Cervical Cancer Patients

Delay in early detection in this study was assessed based on the results of initial screening at local healthcare facilities and reinforced by the cancer stage at the time of the first referral to X Hospital. The study results showed that the classification of cancer stages among respondents consisted of: precancerous lesions (17.6%), stage IA (2.5%), stage IB (3.4%), stage IB<sub>2</sub> (1.7%), stage II (1.7%), stage IIB (45.4%), stage III (2.5%), stage IIIA (0.8%), stage IIIB (16.8%), stage IIIC (0.8%), stage IV (2.5%), stage IVA (3.4%), and stage IVB (0.8%)

The late category is defined as stage ≥ IIB (advanced stage), while the not-late category is defined as stage < IIB (early stage). Based on the results of the study, 87 respondents (73.1%) were categorized as late in conducting early detection of cervical cancer, while 32 respondents (26.9%) were categorized as not late. This is in line with research conducted by Surbakti et al. (2020), which states that the most dominant factor in the problem is the delay in the diagnosis of cervical cancer,

with most cases being diagnosed at an advanced stage. According to their findings, 65.5% of patients diagnosed with cervical cancer sought treatment at an advanced stage (stage IIB–stage IVB), with vaginal bleeding being the main complaint in 77.9% of cases. This contributes to the high mortality rate due to cervical cancer. Furthermore, 70% of patients delayed seeking treatment at healthcare facilities, leading to the diagnosis of cervical cancer at an advanced stage in most cases (Surbakti et al., 2020).

### **The Relationship between Family Support and Delay in Early Detection of Cervical Cancer Patients.**

The results showed that there was no relationship between family support and delayed early detection in cervical cancer patients ( $p$ -value = 0.684). This finding is consistent with research conducted by Manihuruk (2021), which reported a  $p$ -value of 0.054, indicating no significant effect of family support on maternal actions in making efforts to detect cervical cancer early at the Hutarakyat Health Center (S. A. Manihuruk & Sibero, 2021).

Family support alone cannot guarantee that women or mothers will carry out early detection of cervical cancer. It must be accompanied by sufficient knowledge within the family regarding cervical cancer. The target audience for cervical cancer early detection counseling is often limited to women or mothers, even though the entire family, especially husbands, also needs to have a good understanding of the issue (Manihuruk & Sibero, 2021).

In contrast, Simanjuntak's research (2021) reported a significant relationship between family support and participation in early detection of cervical cancer ( $p$ -value 0.000) (Simanjuntak, 2021). The presence or absence of adequate family support is strongly influenced by the knowledge and information about cervical cancer possessed by family members. Most health promotion efforts related to cervical cancer focus solely on individuals at risk, particularly women of childbearing age, without involving the broader community. However, it is important for all groups to understand cervical cancer to facilitate the dissemination of information and the provision of support (Arnas, 2022).

### **The Relationship between Health Professional Support and Delay in Early Detection of Cervical Cancer Patients**

The results showed a relationship between health worker support and delayed early detection in cervical cancer patients ( $p$ -value = 0.017). This finding aligns with Suryatini's research (2022), which examined the correlation between health worker support and early cervical cancer screening in the Sembawa Health Center area, reporting a  $p$ -value of 0.000.

Support from health professionals can significantly influence a person's compliance behavior. With the contribution of health workers in improving the quality of health services, individuals are more likely to develop awareness and willingness to adopt a healthy lifestyle, ultimately achieving an optimal level of health (Suryatini et al., 2022).

Support from health workers can serve as a driving force for health-related behaviors. As experts in the field of health, health workers are seen as reliable sources of information and guidance for accessing health services. Frequent counseling by health workers increases individuals' motivation to undergo health check-ups. Conversely, infrequent counseling reduces motivation, particularly in efforts to prevent diseases

### **The Relationship between Income and Delay in Early Detection of Cervical Cancer Patients**

The results showed a relationship between income and delay in early detection among cervical cancer patients ( $p$ -value = 0.015). This finding is consistent with research by Surbakti (2020), which found a significant relationship between income and delay in seeking treatment at health services among mothers with cervical cancer, reporting a  $p$ -value = 0.000.

In this study, more respondents with low income were delayed in undergoing early detection of cervical cancer. According to the researchers, individuals with low income face significant challenges in accessing health services, not only due to examination fees but also transportation costs. Those with lower incomes tend to prioritize essential needs over health services.

## **4. CONCLUSION**

The results showed a relationship between health worker support ( $p$ -value = 0.017) and income ( $p$ -value = 0.015) with the delay in early detection of cervical cancer patients at X Hospital in Makassar City. However, there was no relationship between family support ( $p$ -value = 0.684) and the delay in early detection of cervical cancer patients at Hospital X in Makassar City. It is recommended that the community, especially women of childbearing age (WUS), place trust in the competence of health workers and overcome any fear or shame associated with early detection.

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