THE RELATIONSHIPS BETWEEN AGES, AGE OF MARRIAGE, NUMBER OF CHILDREN AND THE RESULTS OF VISUAL INSPECTION OF ACETIC ACID (VIA) ON STUDENTS' PARENTS OF MUHAMMADIYAH 1 MACANAN ELEMENTARY SCHOOL IN BIMOMARTANI, NGEMPLAK, SLEMAN, YOGYAKARTA

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Abstract

The prevalence of cervix cancer in Indonesia reaches 0,8% and the Special Region of Yogyakarta has the highest rate which is 1,5%. This phenomenon is mainly caused by sociodemographic factors (age, social status, and economy), sexual activity factors (age and partner of sexual intercourse), parity, genital cleanliness, cigarettes, sexual disease history, cervix chronic trauma, and long-term oral contraception usage.The research was in the form of analytical observational research with cross sectional design. The subjects of the research were all mothers of the fifth graders in Muhammadiyah 1 Macanan Elementary School in Bimomartani, Ngemplak, Sleman, Yogyakarta. The data were obtained using accidental sampling technique with 47 respondents. The research instruments used were observation sheet and master table and the data were analyzed using univariat and bivariat with Chi Square test.The results of the research were that the respondent characteristics based on the age of >35 was 57,4%. Meanwhile, the age of marriage of 20-35 years of age reached 80,9% and the number of two children majority was 57,4%. Subsequently, the result of VIA test was positive with percentage of 12,8%. The relationship between ages and the result of VIA test resulted p value 0,693 as well as p value 0,869 for age of marriage and the result of VIA test. Finally, the relationship between the number of children and the result of VIA test was p value 0,311.There is no relationship between ages, age of marriage and number of children with the result of VIA test.

1. INTRODUCTION

Cervical cancer ranks the second of the highest incidence of cancer in the world after breast cancer [1]. It is one of the diseases that can cause a broad psychosocial impact, especially for patients and their families [2]. Several factors considered increasing the incidence of cervical cancer, namely socio-demographic factors (age, socioeconomic status), sexual activity factors (age of the first time of sexual intercourse, alternating sex partners), parity, lack of maintaining genital hygiene, smoking, history of venereal disease, chronic cervical trauma, and long-term use of oral contraceptives [3].

Based on the Basic Health Research (Ind: RisetKesehatanDasar) in 2013, the prevalence of cervical cancer in Indonesia was 0.8%, while the prevalence of cervical cancer in the D.I. Yogyakarta was the highest, namely at 1.5% [4]. The risk for women over the age of 35 is 16 per 100,000. The peak incidence occurs between the ages of 45 and 55 years. However, at present, incidents tend to occur at a younger age [5]. More than 70% of patients with cervical cancer in Indonesia check their health in an advanced stage so that the death cause is mostly due to late to be found and treated. This

happens because of the low level of knowledge and socio-economic poverty of society [6]. According to WHO, one of the important components in the national cervical cancer management program is the early detection through increasing alertness and the organized screening programs [7]. Based on the background of the high number of women suffering from cervical cancer, the researcher was interested to find out the relationship of age, marriage age, and the number of children with the IVA test result.

2. RESEARCH METHODS

The type of this research is observational analytic study with cross-sectional design. The population was all students' mothers of grade VI in SD Muhammadiyah 1 Macanan, Bimomartani, Ngemplak, Sleman, Yogyakarta. The sampling technique was the accidental sampling technique with a total of 47 respondents. The applied instruments were observation sheets and master tables. The technique of data analysis used univariate and bivariate with Chi-squared test.

3. RESULTS AND DISCUSSION

Distribution of the Frequency of Age, Married Age, and Number of Children

	Category	Frequency	Percentage
Age	20-35 Years Old	20	42.6
	>35 Years Old	27	57.4
Marriage Age	<20 Years Old	9	19.1
	20-35 Years Old	38	80.9
The Number of Children	1	10	21.3
	2	27	57.4
	>2	10	21.3

Based on the table above, the majority of respondents aged > 35 years were 27 people (57.4%), and respondents aged 20 - 35 years were 20 people (42.6%). Respondents in the healthy or highly risk reproduction category still have a possibility to get pregnant again. Therefore, the respondents' number of children may increase. The majority of respondents have 2 children, namely 27 people (57.4%). The majority of respondents get married at the healthy reproductive age (20-35 years), namely 38 people (80.9%), while there were still respondents who get married at the young age (<20 years), namely 9 people (19.1%).

Distribution of the Frequency of IVA Test Results

HasilPemeriksaan	Frekuensi	Persentase
Negatif	41	87,2
Positif	6	12,8
Jumlah	47	100

Based on the table above, the IVA examination result was positive in 6 people (12.8%). IVA test examination method is a method for examining cervical cancer which can be carried out cheaply

and easily and also has a high accuracy of results [3]. IVA test was chosen because it is more effective and efficient in terms of time, method and cost. The sensitivity of the IVA test to detect cervical cancer is 75% with a specificity of 85% and the positive IVA test result indicating the presence of cervical precancerous lesions [8]. The further test can be applying the pap smear [3].

The high number of deaths caused by cervical cancer is due to be too late to be found and treated. However, the term of the disease does not occur quickly but gets worse in a matter of years [9]. The incidence of cervical cancer can be suppressed by doing primary prevention such as increasing or intensifying outreach activities to the society to adopt a healthy lifestyle, avoiding risk factors for cancer, immunizing with the HPV vaccine, and doing an early detection of cervical cancer through the pap smear or IVA test. The coverage of the early detection of cervical cancer in Indonesia is still very low [10].

Relationship between Age and IVA Test Results

Age	IVA Test Results		Total	p-value
	Negative	Positive		
20-35 Years Old	17 (36.17%)	3 (6.38%)	20 (42.55%)	0.693
>35 Years Old	24 (51.06%)	3 (6.38%)	27 (57.44%)	
Total	41 (87.23%)	6 (12.76%)	47 (100%)	

Respondents in the category of healthy reproductive age (20-35 years) and high-risk reproductive age (> 35 years) showed the same positive test results, namely 3 people (6.38%). The result of the p-value is 0.693 which is greater than 0.05 so that it meant that there was no relationship between age and the IVA test results.

In contrast to the theory that the incidence of cervical cancer is influenced by various factors, one of them is socio-demographic factors including age, socio-economic status, and sexual activity which includes the age of the first time of sexual intercourse, alternating sexual partners, not circumcised sexual partners, parity, lack of maintaining genital hygiene, smoking, history of venereal disease, family history of patients with cervical cancer, chronic cervical trauma, use of sanitary napkins and pantyliners, diethylstilbestrol, and oral contraceptive. [11,12].

Relationship between Marriage Age and IVA Test Results

Marriage Age	IVA Test Results		Total	p-value
	Negative	Positive		
<20 Years Old	8 (17.02%)	1 (2.12%)	9 (19.14%)	0.869
20-35 Years Old	33 (70.21%)	5 (10.64%)	38(80.85%)	
Total	41 (87.23%)	6 (12.76%)	47(100%)	

Based on the marriage age, the positive IVA test results in the marriage age category of < 20 years are 1 person (2.12%) and the marriage age category of 20 - 35 are 5 people (10.64%). The statistical test results obtained the p-value of 0.869 which is greater than 0.05 so that it meant that there was no relationship between the marriage age and the IVA test results.

Generally, the age of the first time of sexual intercourse coincides with the age of marriage. Getting married at an early age is a reproductive health problem because the younger the marriage age, the longer the period of time to reproduce [4]. According to the research conducted by Louie et al., the early age at the first time of sexual intercourse and the first time of pregnancy increase the risk of cervical cancer in developing countries [13].

At the young marriage, the cervix is not entirely covered by squamous cells so that it is easy to experience injuries by chemicals carried by sperm [6,14]. One of the causes of cervical cancer is marriage at a young age, especially under 17 years. The younger the age of sexual intercourse is, the greater the risk of virus-contaminated reproduction areas is [15].

Relationship between the Number of Children and IVA Test Results

The Number of Children	IVA Test Results		Total	p-value
	Negative	Positive		
1	10 (21.28%)	0 (0%)	10 (21.28%)	0.311
2	22 (46.80%)	5 (10.64%)	27 (57.44%)	
>2	9 (19.15%)	1 (2.12%)	10 (21.285)	
Total	41 (87.23%)	6 (12.76%)	47 (100%)	

The results of cross-tabulation showed that mothers who have the positive for IVA test were mothers who had 2 children, namely 5 people (10.64%) and mothers who had > 2 children, namely 1 person (2.12%). The statistical test results showed the p-value of 0.311 which is greater than 0.05 so that there was no relationship between the number of children with the IVA test results. The results of this study were not in line with the research conducted by Khasbiyah which indicated that most cervical cancer patients had parity > 3 (52%) [16]. A research conducted by Farrera et al. showed that women who have high parity have also risk for cervical cancer [17]. Experiencing a lot of childbirth can cause the birth canal to loose. In addition, the membranes in the cervix cause the tissue to open so that they have the opportunity to be contaminated with viruses that can cause infection. The presence of bacteria is due to poorly maintained vaginal hygiene conditions.

The research conducted by Irvianty A showed that parity ≥ 3 was associated with cervical cancer incidence [18]. Women experience childbirth frequently and at too close term can have damage to their epithelial tissue that develops toward the growth of potentially malignant abnormal cells [1].

4. CONCLUSION

Thereis no relationshipbetweenage, marriageage, and thenumber of childrenwith IVA Test results. Therefore, otherfactorsmaybecomeriskfactorsfor cervical cancer.

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