

PROFIL PENDERITA KANKER SERVIKS  
DI RUMAH SAKIT UMUM DAERAH DR. MOEWARDI

Naskah Publikasi

Diajukan sebagai salah satu syarat  
untuk meraih gelar Sarjana Keperawatan



Disusun oleh:

NAMA : Nurul Istiqomah

NIM : J 210.102.006

FAKULTAS ILMU KESEHATAN  
UNIVERSITAS MUHAMMADIYAH SURAKARTA

2014



UNIVERSITAS MUHAMMADIYAH SURAKARTA  
FAKULTAS ILMU KESEHATAN

Jani, Tromol Pos 1 Pabelan, Kartasura Telp. (0271) 717417 Surakarta 57102

**Surat Persetujuan Artikel Publikasi Ilmiah**

Yang bertanda tangan di bawah ini pembimbing skripsi/tugas akhir :

**Pembimbing I**

Nama : Winarsih Nur A, S.Kep., Ns., M.Kep., ETN

**Pembimbing II**

Nama : Rina Ambarwati, S.Kep., Ns

Telah membaca dan mencermati naskah artikel publikasi ilmiah, yang merupakan ringkasan skripsi/tugas akhir dari mahasiswa :

Nama : NURUL ISTIQOMAH

NIM : J 210 102 006

Fakultas : Ilmu Kesehatan

Program Studi : S1 Keperawatan International

Judul Skripsi : PROFIL PENDERITA KANKER SERVIKS DI RUMAH

: SAKIT UMUM DAERAH Dr. MOEWARDI

Naskah artikel tersebut layak dan dapat disetujui untuk dipublikasikan. Demikian persetujuan ini dibuat, semoga dapat dipergunakan seperlunya.

Surakarta, 16 Juli 2014

Mengetahui,

**Pembimbing I**

Winarsih Nur A, S.Kep., Ns., M.Kep., ETN

**Pembimbing II**

Rina Ambarwati, S.Kep., Ns

**PROFILE OF CERVICAL CANCER PATIENTS**  
**REGIONAL GENERAL HOSPITAL DR. MOEWARDI**

**Nurul Istiqomah**

**The student of International Nursing Faculty of Health Sciences**

**Muhammadiyah University of Surakarta**

**ABSTRACT**

Cervical cancer is the most common gynecologic cancer in women, the main cause is the presence of *human papilloma virus* (HPV), especially types 16 and 18. Risk factors associated with the incidence of cervical cancer items, namely age, age at first sexual intercourse, multiple sexual *partners*, hormonal contraceptive use, family history of disease, nutrition, physical activity (sports), family income, active smokers and parity. The purpose of the study is Determine the frequency distribution profile of cervical cancer Patients. This research is *descriptive quantitative*. Samples were cervical cancer Patients in the obstetrics and gynecology clinic of Hospital Dr. Moewardi 43 respondents. Using accidental sampling technique. Instrument research using questionnaires. A total of 43 respondents for cervical cancer at the age of  $\geq 30$  year. There are 5 (11.6%) of respondents family history of the disease and as many as 38 respondents (88.4%) do not have. Respondents WHO had sexual intercourse at the age of 22 years  $\leq 18$  respondents (51.2%), and 21 respondents (48.8%) at the age of  $> 18$  years. Respondents WHO have *multiple sexual parner* there are 5 respondents (11.6%), a total of 38 respondents (88.4%) only have one. 20 (46.5%) of respondents use hormonal contraception and as many as 23 respondents (53.5%) do not use. 19 respondents (44.2%) had a parity  $> 3$  times and as many as 24 respondents (55.8%) had parity  $\leq 3$  times. Active smokers by 1 person (2.3%). 12 respondents (27.9%) of physical activity (sports), no physical activity (sports) of 31 respondents (72.1%). 15 respondents (34.9%) were burnt foods or foods that are less healthy, 43 respondents have a healthy diet for the fulfillment of antioxidants contained in vegetables and fruits. Total revenue per month for 34 respondents (79.1%) with income  $< \text{Rp. } 1,145$  million / month.

**Keywords: cervical cancer, cervical cancer risk factors, gynecological.**

**INTRODUCTION**

Cervical cancer is the most common gynecologic cancer in women, the main cause is the presence of infection with *the human papilloma virus* (HPV), especially types 16 and 18 (Hyacinth *et al.*, 2012). Each year there are 12 million

patients with cervical cancer and 7.6 million souls of them died (MOH, 2012). The prognosis of patients with cervical cancer are affected by late diagnosis at an advanced stage and the general state of the weak, poor socioeconomic status, level of education, and lack of knowledge of early detection as *preventive*

measures for women who have been active in sexual activity such as the use of pap smears and visual inspection of acetic (IVA) (Rasjidi and Sulistiyanto, 2008; Rositch *et al.*, 2012).

Risk factors affecting the occurrence of cervical cancer is sexual activity at an early age (<16 years), having many sexual *partners*, or HIV, in addition to a person who is infected with HPV also are immunosuppressed (*immunosuppression*) and female active smokers (Prawirohardjo, 2011).

Data from the results of research conducted Setyarini Eka (2009) in outpatients poly *obsgyn* Moewardi Doctors Hospital (48 respondents), it is known that cervical cancer in the majority of respondents aged > 35 years as many as 21 respondents, 14 respondents who use oral contraceptives within a period of > 4 years, 21 respondents who engage in sexual activity tops the times at age  $\leq$  20 years and 22 respondents with parity > 3 times (20%).

Based on data from the registration daily visits in the medical record of the General Hospital Doctors Moewardi 2011 to 2013 totaled 2,838 cervical cancer patients. In the year 2013 there were 1,027 cervical cancer patients increased from 2012 as many as 832 patients with cervical cancer. While in the year 2011 as many as 979 patients with cervical cancer patients. Number of patients with cervical cancer in 2012 at the General Dr. Moewardi Hospital which reached 832 patients. Cases of cervical cancer

is ranked first with the highest number of patients in the overall service Gynecology at the General Dr. Moewardi Hospital.

Under the terms of which have been described above, the authors analyze the "Profile of Cervical Cancer in Dr. Moewardi Hospital".

## **THEORY**

### **Cervical Cancer**

Cervical cancer is one of the malignant cancer killer of women, most types of *human papilloma virus* (HPV) that cause cervical cancer, namely types 16 and 18 (Lai *et al.*, 2012). Globally, HPV is the virus that most commonly cause sexually transmitted infections. Most infections are caused by HPV, including HPV types cause cervical cancer genetics, are temporary and can be cured between 6-12 months, but can cause morphological changes were. Women are susceptible to HPV infection is Carcinogenic risk of developing cancer is the stage of pre-cancer. If the cancer is not detected pre and given early treatment, could deteriorate cancer (Scarinci *et al.*, 2010).

Risk factors associated with the incidence of cervical cancer were divided into two groups: modifiable risk factors reversible and irreversible. Risk factors that can be changed (reversible) were 1) age of first sexual intercourse (Rasjidi, 2008), 2) socio-economic (Schorge, *et al.*, 2008), 3) active and passive smokers (Dewi *et al.*, 2012), 4) parity (number of births) (Schorge *et al.*, 2008; Setyarini, 2009), 5) the use of oral contraceptives (Schorge *et al.*,

2008), 6) *multiple sexual partners* (Cassiato and Territo, 2012), 7) physical activity (sports) (Lee., *et al*, 2013), 8) Nutrition (Wulandari, 2010). Meanwhile, the risk factors that can't be changed (*irreversible*) of which 1) HIV infection (Prawirohardjo, 2011), 2) age (Prawirohardjo, 2011), 3) family history (Spencer, 2007).

Signs and symptoms of cervical cancer among them are vaginal bleeding, foul-smelling vaginal discharge, pelvic pain, and pain during urination (Prawirohardjo, 2011).

Diagnosis of cervical cancer is done through the history of signs and symptoms, physical examination, pap smear, IVA test, coloscopy and cervical biopsy, investigations (lung photo, CT-Scan, MRI), as well as examination laboratory (peripheral blood, kidney function tests, liver function) (Prawirohardjo, 2011).

## METHODS

### Type and Design Research

This research is a quantitative descriptive research problem that aims to explain or describe the research problems that occur based on the characteristics of the place, time, age, gender, social, economic, employment, marital status. The design study is cross-sectional.

### Place and Time Research

The population used in this study was outpatients Gynecology and Obstetrics Polyclinic General Dr. Moewardi Hospital who diagnosed cervical cancer.

## Population and Sample

### 1. Population

The population used in this study were outpatients Gynecology and Obstetrics Polyclinic Hospital Moewardi doctor diagnosed cervical cancer.

### 2. Samples

#### a. Number of samples

The sample size in this study using a formula that the population is not known (in fit) (Sastroasmoro and Ishmael, 2008; Hidayat, 2010):

$$n = \frac{Z_{\alpha} PQ}{d^2}$$

Description:

n = sample size minimum

$Z_{\alpha}$  = the value of the standard normal distribution at a particular  $\alpha$

P = proportion of cervical cancer in 2010 was 12.8% (MOH, 2013)

Q = 1-P

d = absolute error that can be tolerated

then:

$$n = \frac{1,96^2 \cdot 0,128 \cdot (1-0,128)}{0,01}$$

n = 43 respondents.

#### b. Sampling techniques

Sampling technique used in this study of accidental, the way sampling is done by coincidence met.

#### c. Criteria for sample

Sample criteria used are:

1. Patients who are ambulatory in Gynecology and Obstetrics Polyclinic Hospital Dr. Moewardi.
2. Diagnosed with cervical cancer.
3. Never given birth.
4. Use of oral contraceptives.
5. Willing to be a respondent.

### **Research Variables**

In this study only used a single variable because it is a descriptive quantitative research. Single variable in this study are: age, family history, age at first sexual intercourse, income level, active and passive smoking, parity, hormonal contraceptive use, *multiple sexual partners*, activities, nutrition.

### **Data Collection Method**

Primary data were collected with a questionnaire prepared by the researcher. While the collection of secondary data obtained from the summary report in the medical record Moewardi Doctors Hospital.

### **Research instruments**

The instrument used in this study was a questionnaire. Questions in the questionnaire were made in the form of a checklist for each question item. There are 15 questions with answers covered.

Questions in the questionnaire consists of questions of age, family history, age of first sexual intercourse, income level, active and passive smoking, parity, oral contraceptive use, multiple sexual partners, physical activity, nutrition and the incidence of cervical cancer.

### **Processing Techniques**

Activity in the data processing (Hidayat, 2010):

1. Editing  
Editing an attempt to check the accuracy of data that have been obtained. Editing can be performed on or after the data collection phase of the data collected.
2. Coding  
Coding is a numerical coding activities (number) of data consisting of multiple categories.
3. Data Entry  
Data entry is an activity to enter data that has been collected into the master table or computer database, then create a simple frequency distribution, or it could also create a contingency table.
4. Perform engineering analysis  
In conducting the analysis, in particular there will be research data using statistical science applied to suit the objectives to be analyzed. In this study using the analytic analysis using inferential statistics. Inferential statistics (draw conclusions) is statistic used to infer the parameters (population) based on statistics (sample) or better known as the generalization process.

### **Data Analysis**

This study does not aim to answer the research hypothesis, the analysis used to answer questions regarding the enclosed independent variables (age, family history, age at first sexual intercourse, socioeconomic, active and passive smoking, parity, oral contraceptive use, multiple sexual partner, physical

activity, nutrition) is a univariate analysis.

Univariate analysis was conducted on each outcome variable of the study. The results of this analysis in the form of a frequency distribution, central tendency, measures of dispersion as well as the percentage of each variable, or by looking at the picture of the histogram of the variable (Imran and Munif, 2010; Dahlan, 2012).

### Ethics in Research

Research ethics issues to consider are as follows (Hidayat, 2008):

1. Informed Consent  
Informed consent (consent form) in this study between researchers seek approval from the respondents.
2. Anonymity  
Nursing ethical issues anonymity is a problem that guarantees the use of research subjects in a way not provide or include the name of the respondent on the sheet or the gauge and just write the code on the data collection sheet or results of the research presented.
3. Confidentially  
Guaranteed respondent confidentiality of information researchers only certain groups of data that will be reported as a result of research.

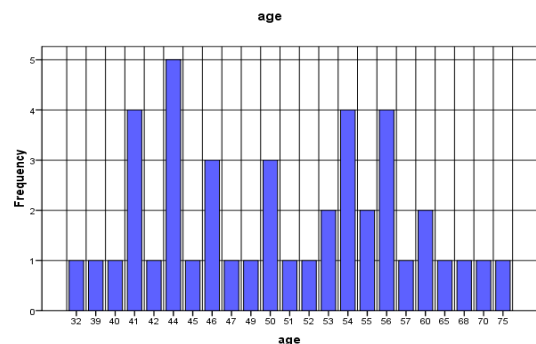
## RESULTS

### Data Characteristics of Respondents

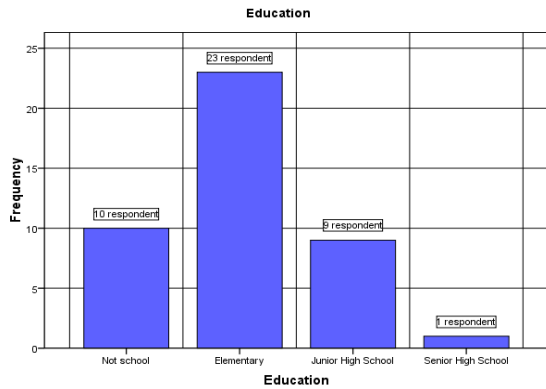
This study was conducted on May 26, 2014 until June 7, 2014 to 43 respondents in order to know the profile of cervical cancer patients in cervical cancer patients based on risk factors associated with the occurrence of cervical cancer. Here are the results of research on General Hospital Doctors Moewardi.

Characteristics of respondents based on the data that has been obtained included age, education and work are presented in the following diagram.

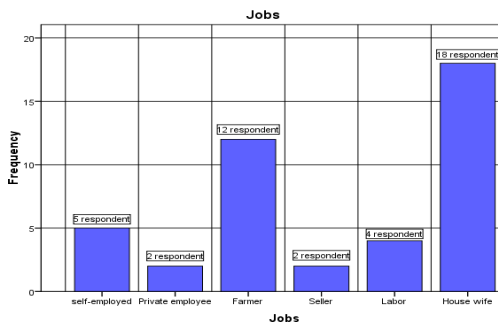
**Diagram 1** Characteristics of respondents by age



**Diagram 2** Characteristics of respondents by education



**Diagram 3** Characteristics of respondents by job



According to the data characteristics of respondents by age shows the youngest age was 32 years, there was 1 person (2.3%), while the oldest age is 75 years i.e. 1 person (2.3%). Respondent characteristic data based on respondents who obtained education schools are not as many as 10 people (23.3%), primary school as many as 23 people (53.5%), graduated from junior high by 9 people (20.9%), graduated from high school there is only 1 person (2.3%). Data characteristics of respondents by job consists of 5 self-employed respondents (11.6%), private sector

employees 2 respondents (4.7%), farmer 12 respondents (27.9%), laborer 4 respondents (9.3%) and as many as 18 respondents (41.9) as a housewife.

### Univariate Analysis

#### 1. Age

Table 4 Results of the frequency distribution of cervical cancer by age

Age Category	Number	Percentage
a. High risk of cervical cancer $\geq$ 30 years	43	100
b. Low risk of cervical cancer <30 years	0	0
The total number of	43	100

Data obtained from 43 respondents using a questionnaire to ask the age at cervical cancer obtained 43 respondents (100%) are indeed diagnosed cervical cancer at age greater than or equal to 30 years.



## 2. Family history of disease

Table 5.-frequency distribution based on family history

Family history of disease categories	Number	Percentage
a. There	5	11.6
b. There is no	38	88.4
Total	43	100

Data based on family history of the disease in 43 respondents using a questionnaire in the form of a check list with no answers and no there are 5 respondents (11.6%) who have a family history of the disease and as many as 38 respondents (88.4) no family history of disease.

## 3. Age of first sexual intercourse

Table 6 Distribution of frequencies based on the age of first sexual intercourse

The first age category do sexual	Number	Percentage
a. High risk of cervical cancer $\leq$ 18 years	22	51.2
b. Low risk of cervical cancer $>$ 18 years	21	48.8
Total	43	100

Frequency distribution based on the age of first sexual conduct in getting as many as 22 respondents (51.2%) have a high risk of cervical cancer since the age of first sexual intercourse at age  $\leq$ 18 year. According to the data obtained were 21 respondents (48.8%) who have a low risk of cervical cancer.

## 4. Multiple sexual partners

Table 7 based on the frequency distribution of multiple sexual partners

Categories multiple sexual partners	Number	Percentage
a. Ever	5	11.6
b. Never	38	88.4
The total number of	43	100
a. Number of pairs 1	38	88.4
b. The number of pairs $>$ 1	5	11.6
The total number of	43	100

Data of multiple sexual partners against 43 respondents using 2 pieces of questions in the questionnaire. The results obtained are 5 respondents (11.6%) who never change partners more than 1 time, while 38 respondents (88.4%) only had one sexual partner.

**5. The use of hormonal contraceptives**

Table 8 Distribution of frequencies based on the use of hormonal contraceptives

Category of hormonal contraceptive use	Number	Percentage
a. Yes	20	46.5
b. Not	23	53.5
The total number of	43	100
1. High risk of cervical cancer > 4 years	17	85
2. Low risk of cervical cancer ≤ 4 years	3	15
The total number of	20	100

Data hormonal contraceptive use questionnaire with 2 pieces of 43 respondents to the question. The results obtained are 20 respondents (46.5%) using hormonal contraceptives, while 23 respondents (53.5%) did not use hormonal contraceptives. Respondents who have a high risk of cervical cancer using hormonal contraception is more than 4 years as many as 17 respondents (85%) of the total 20 respondents (46.5%) were using hormonal contraceptives. Respondents who use hormonal contraceptives are less than or equal to 4 years for 3 respondents (15%).

**6. Parity**

Table 9 Distribution of frequency based on parity

Category parity	Number	Percentage
1. High risk of cervical cancer > 3 times	19	44.2
2. Low risk of cervical cancer ≤ 3 times	24	55.8
The total number of	43	100

Parity data obtained from questionnaires given to 43 respondents. The results obtained were 19 respondents (44.2%) had more than 3 times the parity which means it has a high risk of cervical cancer. Respondents who have a low risk of cervical cancer by 24 respondents (55.8%) with the amount of parity is less than or equal to 3 times.

**7. Active**

Table 10: Distribution of frequency based on active

Categories of active	Number	Percentage
Current smokers:	1	2.3
a. Yes	42	97.7
b. Not		
The total number of	43	100

Active and passive smokers data obtained by questionnaires given to 43 respondent. The results obtained for active smokers there is only one respondent (2.3%) and a total of 32 respondents (97.7%) answered no smoking. While passive smoking was obtained a total of 36 respondents (83.7%) answered yes and were 7 respondents (16.3%) did not answer the passive smokers.

**8. Physical Activity**

Table 11 Distribution of frequency based physical activity

Category of activity	Number	Percentage
a. Yes	12	27.9
b. Not	31	72.1
The total number of	43	100

Physical activity data were obtained from 43 respondents were 12 respondents (27.9%)

had a specific time on a regular basis to perform physical activity (sports). A total of 31 respondents (72.1%) did not have time specifically to do physical activity. Of the 43 respondents most do not have time for physical activity (sports).

**9. Nutrition**

Table 11: Distribution of frequency based nutrition

Category nutrients	Number	Percentage
a. Yes	15	34.9
b. Not	28	65.1
Duration in 1 week:	28	65.1
a. <1 day	15	34.9
b. ≥1 day		
The total number of Varied diet (high in antioxidants):	43	100
a. Health	0	0
b. Less Health		
The total number of	43	100

Nutrient data obtained from 3 of the questions on the questionnaire that was given to 43 respondents. The results obtained by 15 respondents (34.9%) said yes, which means eating food that is burned with a duration of more than 1 time in 1 week. While as many as 28 respondents (65.1%) did not

consume food that is burned or contain carcinogens.

cancer will appear at the age of 30 years or more.

### 10. The level of income

Table 12 The frequency distribution by income level

Income level category	Number	Percentage
a. Revenue <Rp. 1.145 million / month	34	79.1
b. Revenue ≥ Rp. 1.145 million / month	9	20.9
The total number of	43	100

Income level data from 43 respondents to the questionnaire that was given, there were 34 respondents (79.1%) with an income of less than the minimum wage (<Rp.1.145.000,00). Respondents who have an income of more than minimum wage there are 9 respondents (20.9%).

## DISCUSSION

### Characteristics of Respondents

#### 1. Age

Characteristics of respondents by age in 43 respondents, there is an age range of 32 to 75 years. There are 5 respondents (11.6%) were aged 44 years, respondents aged 41,54,56 year amounted to 4 respondents (9.3%). Based on the data that has been obtained age the risk of cervical cancer will appear in the age range of 30 or more. This is supported by the revelation of Prawirohardjo (2011) which states that cervical

### 2. Education

Characteristics of respondents based on 43 respondents education is not divided into school (23.3%), primary school (53.3%), graduated from junior high school (20.9%), completed high school (2.3%). Education is the highest of 43 respondents completed high school will but there is only 1 respondent only. While most or as many as 23 respondents (53.3%) as the only completed primary school only. The level of education will affect a person's health status. Similar to the results of this study the majority of respondents have a low level of education. As expressed by Schorage (2008) that low levels of cervical cancer screening was associated with lower levels of education.

### 3. Job

Characteristics of respondents based on 43 respondents work consists of self-employed (11.6%), private sector employees (4.7%), farmer (27.9%), trade (4.7%), laborers (9.3%), housewives (41.9%). Similarly, education level, employment of a person will affect a person's health status. Sarwono (2007) stated that the socio-economic circumstances that affect a person's health is illustrated by the social and economic terms, such description is education and employment.

#### **4. Age**

Age at diagnosis of cervical cancer outpatient clinic of obstetrics and gynecology at the 43 respondents in the sample study through questionnaires. All respondents were diagnosed with cervical cancer at age  $\geq 30$  year. The frequency distribution of patients by age was 100% of the 43 respondents. Categorization is given a high risk of cervical cancer and low risk  $\geq 30$  years  $< 30$  years. 43 respondents were taken as samples gave results of 100% (43 respondents) high risk of cervical cancer, this means that it is at the age of 43 respondents  $\geq 30$  years have a higher risk of cervical cancer has been proven by all respondents terdiagnosanya today.

This is supported by the report of *the International Federation of Gynecology and Obstetrics* (FIGO) in 2009, which states that at the stage he is often found at the age of 30-39 years. Whereas for stage Ib was more frequent in the age of 40-49 years, the age group 60-69 years is the highest proportion in stage III and IV.

#### **5. Family history of disease**

The second factor that affects the occurrence of cervical cancer in patients with a history of cervical cancer is a family disease, the presence of the mother or sibling with a history of cervical cancer or other cancers such as breast cancer, lung cancer, colon cancer.

Results from 43 respondents through questionnaires that had been given only 5 respondents (11.6%) who answered had a family history of disease. A total of 38 (88.4%) answered no history of family illness.

Frequency distribution based on the family history of 43 produces a greater proportion of respondents who have no family history of disease (88.4%). The results of the study, respondents stated at a young age do not care about women's reproductive health, which allows acquiring HPV as the cause of cervical cancer occur. Basically, cervical cancer is not a hereditary disease, so that respondents who do not have family with cervical cancer or other cancers that can develop cervical cancer. This is supported by research conducted by Scarinci (2010) on 743 respondents with results that have a family history of the disease as much as 12%. Scarinci states that cervical cancer is somehow related to environment and lifestyle than genetic / family history. So this allows women without a history of cancer in the family may develop cervical cancer.

#### **6. Age of first sexual intercourse**

Frequency distribution based on the age of first sexual intercourse at 43 respondents obtained through questionnaires with 2 categories. The category is age at sexual intercourse  $\leq 18$  years included in the high risk of

cervical cancer, while the age at first sexual intercourse > 18 years low risk of cervical cancer. The results obtained were 22 respondents (51.2%) had sexual intercourse at the age of ≤18 years, then as many as 21 respondents (48.8%) had sexual intercourse when they were age > 18 years.

The results of the study, respondents said that married at age less than or equal to 18 years is the usual thing, which is thought to reduce the economic burden of the family. This is supported by Rasjidi (2009) which states that women who initiate sexual intercourse at a young age will increase the risk of cervical cancer. Even women who have had sexual intercourse at the age of ≤18 years increase the risk of cervical cancer by 5-fold. Similarly, research conducted Scarinci (2012) with the results of the study only 21% (153 people) who know that sexual intercourse ≤18 year of the overall sample of 743 people.

#### **7. Multiple sexual partners**

A history of multiple partners in 43 respondents there were only 5 (11.6%) of respondents who have a history of such. The remaining 48 respondents (88.4%) had only one sexual partner. The results of the frequency distribution of this means fewer who have multiple sexual partners of patients with cervical cancer, which is the 43 respondents who had been given a questionnaire. 43 respondents

surveyed came from rural communities who think that having more than one sexual partner is taboo, because they are still holds tightly values and norms.

Even so having more than one sexual partner and deviant patterns of sexual life cause women vulnerable to sexual diseases and become easily infected with HPV that cause cervical cancer (Sari, Indrawati, Harjanto, 2012).

#### **8. The use of hormonal contraceptives**

The result of hormonal contraceptive use on 43 respondents resulted in 20 respondents (46.5%) using hormonal contraceptives, while 23 respondents (53.5%) did not use hormonal contraceptives. This means that of the 43 respondents fewer cervical cancer patients who use hormonal contraception. Yet of 20 respondents (46.5) using hormonal contraception are 17 respondents (85%) using hormonal contraceptives with longer use of more than 4 years, which means it has a high risk of cervical cancer.

According Andrijono (2007) use of hormonal contraception in a time longer than 4 years can increase the risk of cervical cancer is 1.5-2.5 times. In previous research in hospitals conducted by Dr. Moewardi Setyarini (2009) mentions that there are 14 respondents from 48

respondents in the study who used oral contraceptives within a period of more than 4 years.

### **9. Parity**

Risk factors associated with the incidence of cervical cancer is the parity of the number of children ever born, both life and died. In this study, the data obtained from the questionnaire, the data processing using the 2 categories. The category is parity > 3 times higher risk of cervical cancer and parity  $\leq 3$  times times have a low risk of cervical cancer. Results from 43 respondents frequency distribution based on the parity is as much as 19 respondents (44.2%) had a parity > 3 times. Greater number of respondents ie 24 (55.8%) had parity  $\leq 3$  times. Basically hygiene during the process of giving birth is the most important to avoid the risk of HPV.

Research conducted by Fulvoina (2011) mentions that there is a significant relationship between the number of parity with the incidence of cervical cancer. Parity most are found in patients with cervical cancer is 4 times as many as 16 people (28.1%), the study was conducted on 57 patients with cervical cancer and 54 with cervical cancer is not in the General Hospital Dr. Pringadi field. Schorage (2008) states that women with parity 7 times have a 4-fold risk factor for cervical cancer.

However in this study are not in accordance with the above studies. In this study in accordance with Melva (2008) that there is no association between hormonal contraceptives with cervical cancer incidence.

### **10. Active smokers**

The results of the frequency distribution of active smokers based on 43 respondents through questionnaires in 2 pieces inquiries, generating active smokers 1 respondent (2.3%). For respondents smoking is not a good thing done by her life within the woman.

According Rasjidi (2009) carcinogenic specific from tobacco ingredients can be found in the cervical mucus of women who smoke. Carcinogenic substances can damage the cells of the cervix and with viral infections can trigger malignancy. Regarding exposure to cigarettes is supported by research conducted Goddess, *et al* (2012) for exposure to cigarette smoke and hygiene itself is a risk factor for pre-cancerous lesions of the cervix in Denpasar in 2012 In that study stated that women who are exposed to cigarette > 4 hours risk of cervical pre cancer 4 times greater (OR: 4.75, 95% CI 2.19 to 10.33).

### **11. Physical Activity**

Frequency distribution based on physical activity obtained

through questionnaires. Divided into 2 categories for measuring outcomes that have a regular time for exercise and do not have time for regular exercise. A total of 12 respondents (27.9%) said yes, and the rest do not have to answer more specific time to perform regular physical activity (sports), as many as 31 respondents (72.1%).

Most respondents claimed not to know the benefits of physical activity (sports). This is supported by research conducted by Lee, *et al* (2013) on mild obesity, physical activity, calory intake to the risk of cervical cancer. Results of studies suggest that physical activity has an inverse relationship with cervical cancer. several mechanisms that have been linked to the incidence of cancer, such as changes in sex hormone and insulin growth facrtor, immune modulators, radical change. But on the other side of physical activity (sports) is a mechanism as an immune modulator which induces a change in the activity of macrophages, natural killer cells, lymphokine-activated killer cells, neutrophils, and regulating cytokines associated as a cancer preventive.

## 12. Nutrition

Whulandari (2010) mentioned that antioxidants can protect DNA / RNA to the adverse effects of free radicals formed by oxidation of chemical carcinogens.

The results obtained were 15 respondents (34.9%) said yes (to consume less healthy foods), while as many as 28 respondents (65.1%) answered no, which means not eating foods that are less healthy. Healthy food is associated with increased immunity, good immunity to reduce the risk of HPV.

## 13. The level of income

Frequency distribution by income level obtained through the questionnaire by stating family income per month. Measuring the results obtained through the two categories based on the income UMR Solo <Rp. 1.145 million / month and incomes  $\geq$  Rp. 1.145 million / month. The results obtained are part of cervical cancer in obstetrics and gynecology clinic of Hospital Dr. Moewardi have incomes <Rp. 1.145 million / month, as many as 34 respondents (79.1%). While the total 9 respondents (20.9%).

According Nurwijaya (2010) says that the Tertiary knowledge directly related to the standard of living, low-income women 5 times higher risk of cervical cancer in the group of higher-income women. Poverty which resulted in their inability to get needed health care, and difficulty in cost is quite expensive medical tests such as pap smears.

## Limitations of Research

Limitations of this study include the following:



1. During the implementation phase there are time constraints, namely time of the questionnaire, there are some patients when asked the question must immediately do the examination.
  2. A study conducted by researchers not in accordance with the planned April 2014 Researchers are just starting research on May 26, 2014, it is because the length of the permitting process in the study.
  3. In the questionnaire *multiple sexual partners* there is no clarity of *multiple sexual partners* from the couple themselves or not.
  4. Researchers do not get cervical cancer patient number but only the number of visits patients with cervical cancer.
- and 21 respondents (48.8%) had sexual intercourse at the age of > 18 years.
  4. Respondent who have multiple sexual partner there are 5 respondents (11.6%) and there were 38 respondents (88.4%) had only one sexual partner.
  5. Respondents who use hormonal contraceptives were 20 (46.5%) of respondents and as many as 23 respondents (53.5%) did not use hormonal contraceptives.
  6. Respondents who had a parity > 3 times as many as 19 respondents (44.2%) and as many as 24 respondents (55.8%) had parity  $\leq$  3 times.
  7. Respondents as active smokers by 1 person (2.3%) and a total of 42 respondents (97.7%) rather than active smokers.
  8. Respondents who do physical activity (sports) of 12 respondents (27.9%) and were not doing physical activity (sports) of 31 respondents (72.1%).
  9. Respondents who consume foods that are baked or less healthy food (consumption of the charcoal) contained as many as 15 respondents (34.9%) and by 28 respondents (65.1%) consume healthy foods, as well as all the respondents (43 respondents) have a food menu healthy as efforts to comply with foods that contain anti-oxidants which are contained in vegetables and fruits.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

Based on the results of research and discussion, the researchers conclude

1. A total of 43 respondents for cervical cancer at age  $\geq$  30 years
2. Factors are a family history of disease 5 (11.6%) of respondents and as many as 38 respondents (88.4%) did not have a family history of disease factors.
3. Respondents who had sexual intercourse at age  $\leq$  18 years were 22 respondents (51.2%),

10. Total revenue per month for 34 respondents (79.1%) with income <Rp. 1.145 million / month and 9 respondents (20.9%) with incomes  $\geq$  Rp. 1.145 million / month.

### Suggestion

The existence of the findings of the research, as well as the limitations of the author encountered during the course of the study, the researchers gave the following advice:

1. For the agencies  
It is expected that the hospitals Dr. Moewardi provide health education on cervical cancer in the outpatient clinic of Hospital Dr Moewardi kandungan obstetrics. Health education can provide information and knowledge to the patient to be able to perform preventive efforts against the risks of cervical cancer. Hospital agency should have a data base number of cervical cancer with certainty that not only the number of visits alone.
2. For respondents  
It is expected that the respondents know the various risk factors associated with the incidence of cervical cancer, in consultation with the hospital to perform the required treatment, and improve health as healing efforts.
3. For further research  
Expected in subsequent research on cervical cancer and more varied widely and

explore more about the risk factors associated with cervical cancer. should take the *setting of* a community or inpatient time to get more flexible in finding the required data.

### Bibliography

#### Daftar pustaka

Cassiato, A.D., Territo, C.M. (2012) *Manual of Clinical Oncology Seventh Edition*. Lippincott: USA.

Dahlan., S.M. (2012). *Langkah-langkah Membuat Proposal Penelitian Bidang Kedokteran dan Kesehatan*. Jakarta: Sagung Seto.

Departemen Kesehatan Indonesia. (2012). *Profil Kesehatan Provinsi Jawa Tengah tahun 2012*. Retrived from <http://www.depkes.go.id/downloads/RE%20Jateng%20-%2020%20Feb%2013.pdf> . Date: 26 November 2013 time 09:43.

Departemen Kesehatan Indonesia. (2013). *Seminar Sehari dalam Rangka Memperingati Hari Kanker Sedunia 2013*. Retrived from <http://www.depkes.go.id/index.php?vw=2&id=2233> Date: 10 April 2014 time: 15.00

Dewi, G., Sawitri, A., Adiputra, N. (2012). *Paparan Asap Rokok Dan Higiene Diri Merupakan Faktor Risiko Lesi Prakanker Leher Rahim Di Kota Denpasar Tahun 2012*. Laporan Hasil Penelitian.

- Fulviona, A. (2011). *Hubungan Paritas dengan Kejadian Kanker Serviks di Rumah Sakit Umum Daerah dr. Pirngadi Medan Tahun 2011*. Retrived from: <http://repository.usu.ac.id/handle/123456789/3867> Date 15 June 2014 time 13.36.
- Hidayat, A.A. (2008). *Metode Penelitian Keperawatan dan Teknik Analisa Data*. Jakarta: Salemba Medika.
- Hyacinth, I, Adekeye., A, Oluwatoyosi., Ibeh, N, Joy., Tolulope, Osoba. (2012). *Cervical Cancer and Pap Smear Awareness and Utilization of Pap Smear Test among Federal Civil Servants in North Central Nigeria*. PLoS ONE 7(10): e46583. doi:10.1371/journal.pone.0046583.
- Imron, M.T.A., Munif, A. (2010). *Metodologi Penelitian Bidang Kesehatan Bahan Ajar untuk Mahasiswa*. Jakarta: Sagung Seto.
- Lai, C H., Chao, A., Chang, C J., Huang, C C., Wang, L C., Hsueh, S.,... Chou, H H. (2012). *Age factor and implication of human papillomavirus type-specific prevalence in women with normal cervical cytology*. ProQuest.
- Melva. (2008). *Faktor-Faktor yang Mempengaruhi Kejadian Kanker Leher Rahim pada Penderita yang Datang Berobat di RSUP H Adam Malik*. Thesis. Medan.
- Nurwijaya, Hartati., Andrijono., Suheimi. (2010). *Cegah dan Deteksi Kanker Serviks*. Media Komputindo.
- Prawirohardjo. (2011). *Ilmu Kandungan*. Jakarta: Yayasan Bina Pustaka
- Rasjidi., I. (2008). *Manual Prakanker Serviks*. Jakarta : CV Sagung Seto.
- Rositch AF, Gatuguta A, Choi RY, Guthrie BL, Mackelprang RD. (2012) *Knowledge and Acceptability of Pap Smears, Self-Sampling and HPV Vaccination among Adult Women in Kenya*. PLoS ONE 7(7): e40766. doi:10.1371/journal.pone.0040766.
- Sastroasmoro, S., Ismael, S. (2008). *Dasar-dasar metodologi Penelitian Klinis Edisi ke-3*. Jakarta: Sagung Seto.
- Setyarini, E. (2009). *Faktor-Faktor yang Berhubungan dengan Kejadian Kanker Leher Rahim di Rumah Sakit Dr. Moewardi Surakarta*. (Sripsi). UMS Library.
- Scarinci, I.C., Garcia, F., Kobetz, E., Erin, Partridge, Brandt, Heather., Bell, M, Maria C.C.,... Philip, E. (2010). *Cervical Cancer Prevention: New Tools and Old Barriers*. NIH Public Access Author

Manuscript116(11): 2531–  
2542. doi:10.1002/cncr.25065.

Schorge, Schaffer, Halvorson,  
Hoffman, Bradshaw,  
Cunningham. (2008). *Williams  
Gynecolog.* China. The  
McGraw Hill.

Spencer, Juliet, V. (2007). *Deadly  
Disease and Epidemics  
Cervical Cancer.* United States  
of America: Chelsea House.

Whulandari, S.A . (2010).  
*Pengertian dan Pemahaman  
Resiko Kanker Serviks pada  
Wanita Usia Subur di  
Indonesia.* Retrived from  
[http://elib.fk.uwks.ac.id/asset/  
rchive/jurnal/Vol2.no1.Januar  
i2010/PENGERTIAN%20DAN  
%20PEMAHAMAN%20RESIK  
O%20CA%20CERVIX%20PA  
DA.pdf](http://elib.fk.uwks.ac.id/asset/archive/jurnal/Vol2.no1.Januari2010/PENGERTIAN%20DAN%20PEMAHAMAN%20RESIKO%20CA%20CERVIX%20PADA.pdf) Date: 15 June 2014  
time: 18.29