Systematic Review: Factors Causing Cases of Cervical Cancer Deaths in Indonesia Year 2018

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ABSTRACT

Cervical cancer was the number 2 cause of death in non-communicable diseases among women. This cancer is 99.7% caused by oncogenic human papilloma virus (HPV), which attacks the cervix. Eighty percent of them are in developing countries like Indonesia. This study aimed to determine the factors causing the death of Indonesian population suffering from cervical cancer in 2014-2017. The data collection technique used in this research was the study of literature using a systematic review method that is health journals related to cervical cancer from 2014-2017 collected as literature through internet search. Analysis of the data used was using qualitative descriptive techniques by means of narration or words. The results of the study showed that the factors that caused cervical cancer in 2014-2017 were human papilloma virus, smoking, vaginal discharge, parity/ number of children, age of first marriage, sexual partners, hereditary/ family history, birth control pills/ contraception, food, education, and employment. From the results of this study it is suggested that Indonesians always pay attention to their health, especially women who already have risk factors for cervical cancer by following an early cervical cancer prevention program in the form of Pap smears in health services. (Abstract)

Keywords: *Causes of death; Indonesian population; Cervical cancer*

I. INTRODUCTION

Cervical cancer is a type of malignant tumor that affects the surface layer (epithelium) of the cervix or cervix (Savitri, Larasati and Utami, 2015).Cervical cancer is the second leading cause of death in the world in women from all existing cancers. Every two minutes a woman dies from cervical cancer (Wijaya, 2010).

According to the International Agency for Research on Cancer (IARC), 85% of cancer cases in the world, numbering around 493,000 with 273,000 deaths, occur in developing countries (Savitri, Larasati and Utami, 2015)

According to WHO, there are 490,000 women in the world affected by cervical cancer each year. Eighty percent of them are in developing countries like Indonesia. The cervical cancer mortality rate in Indonesia is relatively high (Savitri, Larasati and Utami, 2015)

In Indonesia alone, an estimated 15,000 new cases of cervical cancer occur annually, while the mortality rate is estimated at 7,500 cases per year. In addition, every day an estimated 41 new cases of cervical cancer and 20 women die from the disease (Wijaya, 2010)

Based on the 2013 Basic Health Research Data, it is known that cervical cancer is the cancer with the first highest prevalence of 0.8

per thousand population, with Riau Islands Province, North Maluku Province, and DI Yogyakarta Province having the highest prevalence among other provinces, namely 1, 5 per thousand population. This is supported by data sources from the Early Detection Installation and Health Promotion of Dharmais Cancer Hospital in 2010-2013 cervical cancer ranks second highest number of sufferers after breast cancer. The number of cervical cancer cases in Dharmais Cancer Hospital in 2010 with 296 cases with 36 deaths, in 2011 there were 300 cases with 35 deaths, in 2012 there were 343 cases with 42 deaths, and in 2013 there were 356 cases with 65 deaths (Kemenkes RI, 2013)

The high data of cases and deaths is caused by factors that influence cervical cancer that are still not considered by the public. Several studies have been done before to find out what are the factors that cause cervical cancer. Based on Puspasari research (2017) parity> 1 (95.18%), early marriage (87.95%), and hormonal contraception (83.14%). In the Lubis study (2018) age >30 years (81.5%), age at first sex <20 years (62.1%), parity> 3 children (77.6%), family history (60.3%). %), smoking (84.5%), housewives (69%), and PT-SMA education (63.8%). In the research of Nurlelawati, Devi, & Sumiati (2018) parity> 3 (62.7%), smoking (51.8%), low education (SD-SLTP) (62.7%), and not working (51.8) %).

Therefore, researchers are interested in conducting research with the title of the proposal "Factors causing the incidence of death of Indonesian population suffering from cervical cancer in 2014-2017".

II. METHOD

This research was conducted through a systematic review method to find out what are the factors that cause the death of Indonesian population suffering from cervical cancer in 2014-2017. The research data was collected at the Esa Unggul University Library, Arjuna Utara Street No.9, RT.01 RW.02, Duri Kepa, Kebon Jeruk, West Jakarta in April-August 2018.The data and information collection technique used in this study is a literature study with a systematic review method that uses previous health journals related to cervical cancer in 2014-2017 from literature obtained via the internet.

The population used in this study were all health journals in 2014-2017, amounting to 78 journals related to cervical cancer. However, only 17 journals that fit the study inclusion criteria were risk factors for cervical cancer with 6 midwifery journals, 4 medical journals, 4 public health journals, 2 nursing journals and 1 health research journal. Data collection instruments used were from all health journals related to cervical cancer sufferers in 2014-2017 using media in the form of laptops, networks, internet, website pages and observation list tables. The data analysis technique used is a qualitative descriptive technique using narration or words.

III. RESULT AND DISCUSSION

Based on research conducted in 2014 to 2017, 17 journals which examined the causes of cervical cancer are parity, education, birth control pills, occupation, age at first marriage, smoking, hereditary / family history, sexual partners, vaginal discharge, human papilloma virus, and food..

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Table I. Causes Of Cervical Cancer In 2014-2017

No	Factor Causes	Researcher	Persentase
1	Parity	(Sadewa, 2014)	Primipara = 4% Multipara = 96%
		(Mayrita and Handayani, 2014)	Primipara = 41% Multipara = 59%
		(Syahda, 2014)	<4 anak = 72,4% >4 anak = 27,6%
		(Darmayanti, Hapisah and Kirana, 2015)	<1 children = 21,1% >2 children = 78,9%
		(Mamesah, Laihad and Kaeng, 2015)	0-2 children = 47,9% 3-8 children = 52,1%
		(Mannopo, 2016)	Primipara = 20% Multipara = 80%
		(Jasa, 2016)	Primipara = 8,7% Multipara = 91,3%
		(Puspitasari, Endah and Setiowati, 2016)	<3 children = 68,2% > 3 children = 31,8%
		(Watulingas, Loho and Wagey, 2016)	<3 children = 41% >3 children = 59%
		(Aziyah, Sumarni and Ngadiyono, 2017)	Primipara = 25% Multipara = 75%
		(Puspasari, 2017)	Primipara = 4,82% Multipara = 95,18%
		(Lubis, 2018)	<3 children = 22,4% >3 children = 77,6%
		(Nurlelawati, Devi and Sumiati, 2018)	<3 children = 37,3% >3 children = 62,7%
2	Education	(Sadewa, 2014)	<SMP = 88% >SMA = 12%
		(Mamesah, Laihad and Kaeng, 2015)	SD-SLTP = 30% SLTA-Sarjana = 70%
		(Kusumawati, N and Rahmawati, 2016)	<SMP = 96,9% >SMA = 3,1%
		(Situmorang, Winarni and Mawarni, 2016)	Dasar = 85,2% Lanjut = 14,8%
		(Watulingas, Loho and Wagey, 2016)	SD-SLTP = 35,22% SLTA-PT= 64,78%
		(Lala, Wagey and Loho, 2016)	SD-SLTP = 36,28% SLTA-PT= 63,72%
		(Lubis, 2018)	SD-SLTP = 36,2% SLTA-PT= 63,8%
		(Nurlelawati, Devi and Sumiati, 2018)	SD-SLTP = 62,7% SLTA-PT= 37,3%

No	Factor Causes	Researcher	Persentase
3	Birth control pills /	(Syahda, 2014)	Non Hormonal = 44,8% Hormonal = 55,2%
		(Darmayanti, Hapisah and Kirana, 2015)	Non Hormonal = 4,9% Hormonal = 95,1%
		(Lestary and Ria, 2016)	Non Hormonal = 43,39% Hormonal = 56,61%
		(Jasa, 2016)	Tidak Pil KB = 32,6% Pil KB = 67,4%
		(Aziyah, Sumarni and Ngadiyono, 2017)	KB Implant = 31,58% KB Suntik/Pil = 68,42%
		(Puspasari, 2017)	Non Hormonal = 16,86% Hormonal = 83,14%
4	Jobs	(Sadewa, 2014)	Housewife = 54% Farmers = 28% Private = 18%
		(Watulingas, Loho and Wagey, 2016)	Housewife = 69,35% Others =30,65%
		(Lala, Wagey and Loho, 2016)	Housewife = 86,27%% Others =13,73%
		(Lubis, 2018)	Housewife = 69% Others =31%
		(Nurlelawati, Devi and Sumiati, 2018)	work = 48,2% does not = 51,8%

No	Factor Causes	Researcher	Persentase
5	Age of First Marriage	(Sadewa, 2014)	<20 years = 90% >20 years = 10%
		(Darmayanti, Hapisah and Kirana, 2015)	<20 years = 52,2% >20 years = 47,8%
		(Jasa, 2016)	<20 years = 76% >20 years =24%
		(Puspasari, 2017)	<20 years = 87,95% >20 years =12,05%
6	Smoking	(Sadewa, 2014)	Husband = 72% Not = 28%
		(Jasa, 2016)	Yes = 10,9% Not = 89,1%
		(Lubis, 2018)	Yes = 84,5% Not = 15,5%
		(Nurlelawati, Devi and Sumiati, 2018)	Yes = 51,8% Not = 48,2%
7	Hereditary / Family History	(Sadewa, 2014)	Yes = 0% Not = 100%
		(Lestary and Ria, 2016)	There= 58,49% No = 41,50%
		(Lubis, 2018)	There = 60,3% No = 39,7%
8	Sexual Partners	(Lestary and Ria, 2016)	1 = 32,07% >1 = 67,92%
		(Jasa, 2016)	Alternately = 30,4% No = 69,5%
		(Puspasari, 2017)	1 = 71,08% >1 = 28,92%
9		(Sadewa, 2014)	Yes = 88% No = 12%
		(Jasa, 2016)	Treated = 60,9% Untreated = 39,1%

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No	Factor Causes	Researcher	Persentase
10	Human Papilloma Virus	(Marlina *et al.*, 2016)	HPV Type 18 = 40,4% HPV Type 16 = 28,5% HPV Type 45 = 7,1% HPV Type 52 = 2,3% HPV Type 31 & 33 = not detected
11	Food	(Lestary and Ria, 2016)	Fast Food = 81,14% Nutritious = 18,86%

Factors that cause cervical cancer:

A. Human Papilloma Virus

According to Marlina (Marlina et al., 2016)that the cause of cervical cancer is more dominated by HPV type 18 and HPV type 16 than followed by HPV type 45 and HPV type 52, while HPV type 31 HPV type 33 is not detected.

B. Smoking

According to Nurlelawati (Nurlelawati, Devi and Sumiati, 2018)that smoking has a 0.309 times chance of suffering from cervical cancer.

Tobacco used as material for smoking can be a risk factor for cervical cancer, because it contains nitrosamines and nicotine derivatives in it which are carcinogens so they are easily absorbed by the blood and can damage the immune system (Subagja, 2014). But according to Savitri not only women who are active smokers who can be affected by the risk of cervical cancer, women who are passive smokers can also be at risk of cervical cancer (Savitri, Larasati and Utami, 2015).

C. Vaginal Discharge

According to Jasa women with a risk of cervical cancer if experiencing vaginal discharge continuously but are not treated (Jasa, 2016).

Vaginal discharge appear due to poor cervical hygiene. Vaginal discharge is divided into two types, namely normal vaginal discharge and abnormal vaginal discharge. Normal vaginal discharge is clear, has no odor, and is not itchy. While vaginal discharge is not the opposite. This abnormal vaginal discharge is the forerunner of cervical cancer (Subagja, 2014)

D. Parity / Number of Children

According to Mayrita & Handayani that the greater the number of children, the greater the risk of developing cervical cancer. Women who have a large number of children, especially those who give birth more than 3 times will be at high risk of causing cervical cancer (Mayrita and Handayani, 2014).

However, the above opinion is not in accordance with the study of Syahda which states that the absence of a relationship of parity with cervical cancer is probably due to the fact that the delivery process is sterile or hygienic in order to reduce the risk of cervical cancer even though the woman has given birth more than 4 children (Syahda, 2014).

E. Age of First Marriage

According to Jasathat women who get married for the first time under the age of 20 years are more likely to develop cervical cancer than women who are over 20 years old. Women who have sexual activity when their reproductive organs are not yet mature will only encourage HPV to get to the cervix. This is different from women who have maturity in their reproductive organs. His body will form immunity that can ward off the entry of HPV (Jasa, 2016).

Married at an early age causes cervical cancer because at that age the female reproductive organs are actively developing and stimulation of the penis or sperm can trigger cell changes to become abnormal that occurs due to injuries during sexual intercourse and then infection from the human papilloma virus (Puspasari, 2017).

F. Sexual Partner

According to Lestary & Ria that women who have multiple sexual partners are at higher risk of developing cervical cancer. Human papilloma virus is easily infected in these women compared to the average woman (Lestary and Ria, 2016). Transmission of HPV can occur through sexual contact, especially women with multiple sexual partners. Meanwhile, according to Puspasari women who only have one partner or are loyal can also get cervical cancer (Puspitasari, Endah and Setiowati, 2016; Puspasari, 2017).

But it's not just women who have to limit their sexual partners. If the male partner also frequently changes sex partners, it can increase the risk of cervical cancer (Tilong, 2014).

G. Hereditary / Family History

According to Lestary & Ria (2016) that genetic disorders occur due to hereditary diseases passed down from parents to their children. Genetic mutations passed from parents to children can develop into a type of cancer. Mutated genes does not mean that the child will have cancer, but the risk he carries is higher than that of others (Lestary and Ria, 2016).

From the results of interviews conducted by Lubis said that mother and grandmother were the closest relatives of cervical cancer sufferers (Lubis, 2018).

H. Use of birth control pills / contraception

According to Jasathat women who use birth control pills have a 3,248 times risk of developing cervical cancer compared to women who do not use birth control pills (Jasa, 2016).

Most women with cervical cancer have a history of using hormonal contraception. Hormonal contraception is a tool used to prevent pregnancy by maintaining the thickness of cervical mucus and stopping ovulation so that it is not passed by sperm. If used in the long term 5 years or more can increase the risk of cervical cancer, therefore in 6 months or once a year it is recommended to do a pap smear examination (Puspasari, 2017).

I. Food

According to Lestary & Ria, women at risk of cervical cancer can also be caused by unhealthy and improper daily food intake. The immune system becomes weak and can not fight the virus due to lack of nutrients present in food. Someone with a strict diet, a diet low in vegetables and fruits, low in consuming vitamins A, E, and C every day can make the immune system decreases, making it easy to be infected by various germs including human papilloma virus (Lestary and Ria, 2016).10.

J. Work

According to Watulingas, husband's work is a very influential factor in the spread of cervical cancer, because it is related to a virus that is the human papilloma virus (Watulingas, Loho and Wagey, 2016).

From the results of several studies that have been carried out it is found that the work of IRT is the most characteristic of cervical cancer sufferers. According to Watulingas, Housewive is not one of the factors that causes many cervical cancer events, but behavior such as frequent sexual

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partnerships carried out by her husband can be the spread of the HPV virus that causes cervical cancer (Watulingas, Loho and Wagey, 2016). Even so the work as an IRT must be explored further, it is likely that mothers do not transparently explain their field of work (Rarung, Loho and Suparman, 2011).

K. Education

According to Lala, education is one of the factors that can influence cervical cancer. With high education, a person's insights and knowledge will increasingly be motivated to exercise health control over themselves (Lala, Wagey and Loho, 2016).

This is supported by research Mamesah which states that the level of education also influences a person's health (Mamesah, Laihad and Kaeng, 2015). Someone who is highly educated generally has knowledge about the importance of caring for health and ways to avoid disease. Also supported by research Watulingas said that knowledge or high education can support the level of health and life of each individual, with broad thinking and awareness of the dangers of cervical cancer can be prevented by early detection (Watulingas, Loho and Wagey, 2016).

IV. CONCLUSION AND SUGESTION

From several journals obtained as research material it is known that the factors that cause cervical cancer in 2014-2017 are parity> 3 children, primary and junior high school education, use of birth control pills / hormonal contraception, IRT work, age of first marriage <20 years old, smoking, hereditary / family history, sexual partners> 1 person, experienced vaginal discharge, human papilloma viruses type 18, 16, 45, & 52, and fast food.

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