

Knowledge, Attitudes And Perception Of Women Regarding Cervical Cancer In The City Of Yaoundé, Cameroon

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Abstract—Globally, cervical cancer is a public health threat and it's ranked the second most common cancers in women. It can be prevented or cured if diagnosed early. The mortality rate due to cervical cancer in Cameroon is increasing due to late diagnosis and poor knowledge of women against preventive measures of the disease; hence this study was aimed at assessing the knowledge and awareness of cervical cancer prevention among Cameroonian women. A cross sectional descriptive study was carried out in Yaoundé on the 8th of March 2019 where interviewer guided questionnaires was administered to 204 women with an age range of 19-54 years old. A total of 89.7% women have never heard of cervical cancer, 34.8% have heard of Human Papilloma virus and only 19.1 % knew that there exists a vaccine against the Human Papilloma virus. While 76.5% agreed to have heard of cervical cancer screening test and just 8.8% knew the exact interval for a regular screening. The most common means of information for both cervical cancer and Human Papilloma virus vaccine was the media with 73.5% and 35.8% respectively. Forty percent of the participants gave no response on warning signs for cervical cancer while 60% responded when the signs were cited by the researcher with most participants mentioning persistent vaginal discharge with unpleasant odor. Also, 21%, 14.7% and 7.3% strongly agreed that Infection with HPV, Infection with Chlamydia and having many children were risk factors to cervical cancer development

respectively. Just 2.5% of the participants were confident that they could identify a symptom of cervical cancer and 87% agreed to consult a doctor if they notice any signs of cervical cancer. While 10.3 % believe African women are not susceptible to cancer and 8.4% said cervical cancer is caused by an evil spirit. There is generally a low knowledge about cervical cancer prevention amongst women in the city Yaoundé, though majority of the women have a good perception and attitude towards the diseases. It is imperative for policy makers to explore other means of sensitization so as to create awareness of the disease. This will lead to more voluntary testing and hence reduce the mortality rate of the disease.

Keywords—Cervical cancer; knowledge; Attitudes; Perception; Women; city of Yaounde-Cameroon

I. INTRODUCTION

Cancer is a pathology characterized by slow-growing cancerous cells that generally takes several years to undergo malignant transformation, from primary infection by the oncogenic human papillomavirus (HPV) to the various precancerous histological lesions accompanying the persistence of the infection [1]. Globally, cervical cancer is a public health threat and it is ranked the second most common cancer among women, after breast cancer. Every year, 500 000 new cases are diagnosed and 270 000

women die of this disease, mostly (85%) in developing countries [2].

In Cameroon, the incidence of cervical cancer according to GLOBOCAN 2012, is 80.73/100,000 women [3]. Organized screening for cervical cancer by cytology and the treatment of precancerous lesions has allowed developed countries to drastically reduce the incidence and mortality of this cancer [4]. However, in Cameroon and other developing countries, the incidence of cervical cancer remains high and patients often present late, with advanced cancer stages at the time of diagnosis [5]. In these resource-poor countries, there is no systematic screening program for cervical cancer. Screening is selective, opportunistic or sporadic in the form of campaign. Inadequate financial resources, weak health systems and limited numbers of skilled practitioners are the main reasons for low coverage of cervical cancer screening in most low- and middle-income countries [6]. Lack of knowledge in the population and among healthcare workers is a prime barrier for access to cervical cancer prevention [7-9]. Thus the aim of this study was to assess the knowledge and awareness of cervical cancer prevention among Cameroonian women.

II. METHODOLOGY

A. Study design and setting

We conducted a cross-sectional descriptive study on the 8th of March 2019 in the Ministry of Scientific Research and Innovation, specifically in the Institute of Medical Research and Medicinal plants Studies and particularly at the center of medical research in Yaoundé, the capital city of Cameroon. Yaoundé is a centre of attraction for a multi-ethnic population who either move there for; business, studies or to explore the diverse economic activities the town can offer.

B. Study population

It involved women of reproductive age (18 years and above), who attended the free medical screening campaign organized by the center of medical research in commemoration to several other activities launched by the institute of Medical research and medicinal plant studies to accompany the international day of the woman. The sample size of 204 was calculated based on result of previous similar studies. A confidence interval of 95%, absolute precision of 0.05 and prevalence of 26.8% were used. The study excluded all women who were below 18 and those who were not willing to give their consent.

C. Ethical consideration

The Ethical approval for this study was obtained from the Ethical Committee of the Institute of Medical Research and Medicinal plant Studies while written and verbal consent was obtained from the participants and they were assured of the anonymity and confidentiality of their information. There was no financial benefit for participating in the research and participation was on a voluntary basis.

D. Data collection and analysis

Data were collected using a pre-tested self-administered questionnaire, written in both English and French, the semi-structured questionnaire comprising of 4 sections covering; socio-demographics information, knowledge, attitude and perception on cervical cancer. It was developed using a modified Cancer Awareness Measure Toolkit (version 2.1) developed by the UK cancer research and on questions used in previous peer reviewed published studies. The questionnaires were self-administered to the women who came for the free medical campaign; however special assistance were given to women who were not sufficiently literate. The completed questionnaires were collected and verified by senior researchers.

The data was entered into Microsoft excel and descriptive methods were used to summarize the data.

III. RESULTS

A. Socio-demographic characteristics

The women recruited in this study were between 19 and 56 years old. Unmarried participants were 50.4% while 24.5% were married. About half of the participants had reached a tertiary level of education (44.1%). Most of the participants (35.8%) were students while 5% were self-employed, about 15% of the participants were full time-employed and 39% gave no response with regard to their socio-professional status (Table 1).

B. Knowledge on the women regarding Cervical cancer

In our study, 89.7% had never heard of cervical cancer, 34.8% have heard of Human Papilloma virus and only 19.1% knew that there exists a vaccine against the Human Papilloma virus. With regard to screening, 76.5% agreed to have heard of cervical cancer screening test and just 8.8% knew the exact interval for a regular screening. The most common means of information for both cervical cancer and Human Papilloma virus vaccine was the media with 73.5% and 35.8% respectively. Approximately 40% gave no response regarding to questions on the warning signs of cervical cancer and 60% were able to

response by a yes or a no with respect to questions on the warning signs of cervical cancer when cited. Just 43,1%, 49,5%, 39,2%, 24% and 37,3% could cite; vaginal bleeding between periods, persistent vaginal discharge that smells unpleasantly, discomfort or pains during sex, menstrual periods that are longer or heavier than normal and vaginal bleeding during or after sex respectively as warning signs of cervical cancer. Moreover, the majority of the participants did not know the risk factor of cervical cancer and only; 21%, 14, 7 % and 7, 3% strongly agreed that Infection with HPV, Infection with Chlamydia and having many children were risk factors to cervical cancer development. (Table 4).

C. Attitudes and perceptions of women with respect to Cervical Cancer

The analysis shows that just 2,5% were very confident that they could notice a symptom of cervical cancer, 87% agreed that if they noticed any symptom of cervical cancer, then the first person they will consult will be a doctor. On the other hand, only 19.1 % knew that there was a vaccine against cervical cancer, 55% believe that there is a national cervical cancer screening program in Cameroon, 10,3% believe that African women are not susceptible to cervical cancer while 8,4% believe that cervical cancer is caused by an evil spirit. (Table 2).

Table 2: Attitudes of women regarding cervical cancer

IV. DISCUSSION

In this study, the socio-demographic characteristics, knowledge, attitude and perception of women towards cervical cancer screening in the city of Yaoundé, Cameroon was assessed. The age range of the participants was between 19 and 56 years old, which is similar to the age range of 18 - 67 years, in a study in the Buea Health District, Cameroon by Gregory Edie *et al.* [10] in 2015. Most of the participants were students with a tertiary level of education. Unlike in a study in Rewa subdivision, Fiji by Susana [11] where majority of them were married, in this study, we found out that only a quarter of the women were married. This is probably due to the fact that, there are a lot of state universities in the city of Yaoundé, where a large proportion of their populations are unmarried students.

A majority of the women, 89, 7% have heard of cervical cancer but just 34, 8% and 19, 1% have heard of the human papilloma virus and vaccine respectively. This is similar to the work of, Mahoungou *et al.* [12] in the Congo, who found that 78, 6% of women have heard about cervical cancer but contrast, to results found in Songea's rural area by James in 2011[13] and results found in the Northern region of Cameroon by Georges in 2017 [14], who both found that just 10% of their participants

mentioned the human papilloma virus as the leading cause of cervical cancer. This low knowledge on the causative agent of cervical cancer among the participants could be justified by the fact that women are not that current and do not often listen or read current issues related to health, therefore actors in the field of awareness need to develop other methods of sensitization on this pathology.

As part of assessing the knowledge and awareness among the participants, a series of questions pertaining to signs and symptoms including risk factors, were asked. In line with the study conducted by Shapley *et al.*, (2006)[15], in this study majority of the participants were able to identify vaginal bleeding between period's, persistent vaginal discharge with unpleasant smell, discomfort or pain during sex, vaginal bleeding after menopause and vaginal bleeding during/after sex as possible warning signs and symptoms of cervical cancer. However, about half (50%) did not know whether persistent lower back pain, persistent pelvic pain and unexplained weight loss were signs and symptoms of the disease.

On the other hand, minority of the participants strongly agreed that weakened immune system (19, 1%), long term use of contraceptive pill (17, 6%), starting sexual intercourse at early age (11, 3%), having many sexual partners (18, 1%) and having a sexual partner with many previous partners (8, 3%) were among the risk factors associated with cervical cancer. Surprisingly, a significant proportion of the respondents did not know that smoking any form of cigarette (27,4%), infection with Chlamydia (27%), having many children (32,8%) and not going for regular pap smear (25,5%) were risk factors of cervical cancer or not. This is in line with a study conducted in Niger where about one-fourth could not list any risk factor associated with the disease. Knowledge about the risk factors of cervical cancer among the women is therefore insufficient. Therefore it is imperative to improve their knowledge level through education in order to improve the quality of cervical cancer services provided by them in the Municipality.

Attitude and perception about cervical cancer could affect one's behavior in seeking treatment. Hence, a positive attitude and perception is expected to influence individual's behavior in seeking early treatment when they observe signs and symptoms related to cervical cancer. The study revealed a positive attitude towards seeking cervical cancer treatment. Majority (87%) of the participants reported that they would seek medical assistance within a week after seeing a symptom which they thought might be a sign of cervical cancer this is in accordance with study conducted by Dunne *et al.* (2007)[16].

Conclusion

In conclusion, knowledge of cervical cancer and prevention by screening showed several gaps and important misconceptions. This shows that there is a real need for public awareness of this cancer. This awareness may be adapted through continuing medical educational programs conducted both at the hospital and community levels to spread knowledge about cervical cancer prevention.

Competing interests

The authors declare no competing interest.

Authors' contributions

All authors contributed in the project conception, data collection and analysis, drafting and proof reading the manuscript. Akwah Lilian is the corresponding author.

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Table 1 Demographic characteristics of respondents

1. Demographic questions	Frequency	Percentage %
-What is your gender?	172	
- Female	7	84,3
- Prefer not to say	25	3,4
-No response		12,3
Region of origin	7	
- North west	9	3,4
- South west	46	4,4
- West	13	22,5
- East	36	6,3
- Center	2	17,6
- North	8	0,9
- Extreme north	20	4
- Littoral	6	10
- Adamaoua	11	3
- South	46	5,4
- No response		22,5
-Marital status	111	
- Single/never married	50	54,4
- Married/living with	2	24,5
- Divorced	41	1
- Widowed		20,1
-Highest level of education qualification		
- Degree/ higher degree	90	
- Higher education qualification below degree level	17	44,1
- A- level	22	8,3
- O- level	12	10,8
- No formal qualification	2	5,8
- Other	5	1
- No response	56	2,5
-Are you currently?		27,5
-Employed full-time	30	
- Employed part- time	3	15
- Unemployed	5	1,4
- Retired	1	2,4
- Self-employed	10	0,4
- Still studying	73	5
- Disabled or too ill to work	1	35,8
- Full-time home marker	1	0,5
- Prefer not to say	8	0,5
- No response	72	4
-Have you, your family or friend had cancer?		35
-You	5	
- Close family member	32	2,5
-Other family member	17	15,7

- Close friend	20	8,0
- Other friend	13	10
- No response	117	6,4
		57,4

Table 2 Knowledge about cervical cancer, HPV and vaccination

Variable	Frequency	Percentages %
2. Have you heard of :		
-Cervical cancer		
- Yes	183	89,7
- No	16	7,8
- No response	5	2,5
-Human Papilloma virus		
- Yes	71	34,8
- No	120	58,8
- No response	13	6,4
- Human Papilloma virus vaccine		
- Yes	39	19,1
- No	142	69,6
- No response	23	11,3
Cervical screening test		
- Yes	156	76,5
- No	38	18,6
-No response	10	4,9
- At what interval is screening done		
- Every year	34	16,7
- Every 3 years	18	8,8
- Every 5 years	2	1
- Don't know	150	73,5
- From what source did you hear of cervical cancer information		
- Television	150	73,5
- Primary health care	21	10,29
- Information leaflets	45	22,1
- Radio	86	42,1
- Community elders	13	6,4
- Neighbors and friends	50	24,5

- People who have had the disease	29	14,2	normal		
- Cancer awareness group	37	18,1	- Yes	49	24
- Feminist organization	22	10,8	- No	64	31,4
- Church	17	8,3	- No response	91	44,6
- Nurses/ Doctors	63	30,8	- Persistent diarrhea		
- From what source did you hear of Human papilloma virus vaccine			- Yes	13	6,4
- Television	73	35,8	- No	91	44,6
- Primary health care	4	2	- No response	100	49
- Information leaflets	16	7,8	- Vaginal bleeding after menopause		
- Radio	31	15,2	- Yes	95	46,6
- Community elders	5	2,4	- No	16	7,8
- Neighbors and friends	50	24,5	- No response	93	45,6
- People who have had the disease	9	4,4	- Persistent pelvic pain		
- Cancer awareness group	37	18,1	- Yes	87	42,6
- Feminist organization	17	8,3	- No	28	13,7
- Church	5	2,5	- No response	89	43,7
- Nurses/ Doctors	32	15,7	- Vaginal bleeding during or after sex		
The following may be warning signs of cervical cancer:			- Yes	76	37,3
- Vaginal bleeding between periods			- No	37	18,2
- Yes	88	43,1	No response	91	44,5
- No	34	16,7	- Blood in stool or urine		
- No response	82	40,2	- Yes	28	13,8
- Persistent low back pain			- No	79	38,7
- Yes	11	5,3	- No response	97	47,5
- No	8	4	- Unexplained weight loss		
- No response	185	90,7	- Yes	40	20
- Persistent vaginal discharge that smells unpleasantly			- No	64	31,4
- Yes	101	49,5	- No response	100	48,6
- No	37	18,1	- In the next year, who is most likely to develop cervical cancer?		
- No response	66	32,4	- A woman aged 20 to 29 yrs	37	18,1
- Discomfort or pains during sex			- Prostitute	36	17,6
- Yes	80	39,2	- A woman aged 30 to 49 yrs	39	19,1
- No	39	19,1	- A woman aged 50 to 69 yrs	29	14,2
- No response	85	41,7	- A woman aged 70 years	19	9,3
- Menstrual periods that are longer or heavier than			- Cervical cancer is unrelated to age	91	45
			- The following may or may not increase a woman chance of developing cervical cancer.		

How much do you agree?			- Starting to have sex at a young age		
- Infection with HPV			Strongly disagree	20	9,8
- Strongly disagree	9	4,4	- Disagree	13	6,3
- Disagree	4	2	- Not sure	76	37,3
- Not sure	54	26,5	- Agree	23	11,3
- Agree	33	16,2	- Strongly agree	23	11,3
- Strongly agree	43	21	-No response	49	24
-No response	61	29,9	- Having many sexual partner		
- Smoking any cigarettes			Strongly disagree	20	9,8
Strongly disagree	31	15,1	- Disagree	15	7,5
- Disagree	23	11,3	- Not sure	46	22,5
- Not sure	48	23,5	- Agree	36	17,6
- Agree	26	12,7	- Strongly agree	37	18,1
- Strongly agree	20	10	-No response	50	24,5
-No response	56	27,4	- Having many children		
- Having a weak immune system			Strongly disagree	37	18,1
Strongly disagree	18	9	- Disagree	22	10,8
- Disagree	11	5,4	- Not sure	51	25
- Not sure	53	25,9	- Agree	12	6
- Agree	37	18,1	- Strongly agree	15	7,3
- Strongly agree	39	19,1	- No response	67	32,8
-No response	46	22,5	- Having a sexual partner with many sexual partners		
- Long term us of contraceptive pills			- Strongly disagree	27	13,2
Strongly disagree	12	6	- Disagree	25	12,3
- Disagree	10	4,9	- Not sure	61	30
- Not sure	52	25,5	- Agree	21	10,3
- Agree	42	20,5	- Strongly agree	17	8,3
- Strongly agree	36	17,6	- No response	53	25,9
-No response	52	25,5	- Not going for regular smear(Pap) test	22	10,8
- Infection with Chlamydia			- Strongly disagree	16	8
Strongly disagree	13	6,4	- Disagree	56	27,5
- Disagree	12	5,9	- Not sure	31	15,2
- Not sure	48	23,5	- Agree	27	13
- Agree	46	22,5	- Strongly agree	52	25,5
- Strongly agree	30	14,7	-No response		
-No response	55	27			
- Having a sexual partner who is not circumcised					
Strongly disagree	43	21,1			
- Disagree	26	12,7			
- Not sure	64	31,3			
- Agree	8	4			
- Strongly agree	11	5,4			
-No response	52	25,5			

Table 3 Attitudes and Perceptions of cervical cancer

3. Attitudes		
-How confident are you that you would notice a cervical cancer symptom(attitudes)		
-Not at all confident	46	22,5
- Not very confident	67	32,8
- Fairly confident	26	12,8
- Very confident	5	2,5
-No response	60	29,4
- If you find a change in your cervix, who will you consult first?		
- The doctor	177	87
- The traditional doctor	7	3, 4
- The prophet	5	2,5
- No response	189	92,6
- What is your perception on cervical cancer?		
- Very serious	146	72
- Is it common	31	15,2
- Deadly	111	54, 4
- African women are not susceptible to cervical cancer	21	10,3
- Affect only Caucasians	8	4
- Caused by infections	89	44
- Caused by evil spirit	17	8, 4
- Could be transmitted sexually	37	18,1
- Convince that treatment could save a woman from death	109	53, 4
- Is there a National Cervical cancer Screening programme in Cameroon?		
- Yes	112	55
- No	9	4,4
-Don't know	60	29,4
-No response	23	11,2

Is there a vaccination to protect against cervical cancer?		
- Yes	56	27, 4
- No	34	16,7
- Don't know	91	44,6
- No response	23	11,3