Level of Awareness and Barriers of Cervical Cancer Screening in Bangladesh

Taslima Nigar[1*], Md. Monirul Hassan[2]

[1]Junior Consultant, Department of Gynaecological oncology, National Institute of Cancer Research and Hospital. Mohakhali, Dhaka, Bangladesh. *Corresponding author

[2]Student, Department of Environmental Science. Jahangirnagar University (JU), Savar, Bangladesh.

Abstract

Background: Cervical cancer is one of the top causes of mortality in the female population of Bangladesh. And it is currently still growing along with our economical and lifestyle changes. The main reason for this is the lack of understanding and awareness about cervical cancer and other types of cancer and the lack of available screening measures. Lack of general education, especially in our demographic, is one of the main reasons behind this. Symptoms of cervical cancer are often misunderstood as other types of diseases, which leads to wrong medication. Aim of the study was to determine the level of awareness and barriers of cervical cancer in women in Bangladesh. **Methods:** This was a cross-sectional study performed over a period of 4 months in one single center. The study was conducted with only the female population of Dhaka city coming in the Genealogical Department of NICRH. The data was collected via questionnaires and analyzed using SPSS software. **Results:** The study was conducted with 100 willing and informed female participants. The majority were above the age of 45. The education level was also low. Most of the sample sizes were married and working as housewives. Awareness regarding cervical cancer was scarce among the patients. **Conclusion:** The study was conducted to learn more about cervical cancer and its awareness in the female population of Bangladesh. Lack of proper awareness regarding cervical cancer was noticed over the duration of the study.

INTRODUCTION

Bangladesh is one of the densely populated places in the world, and as a result of accelerated economic growth, many new diseases are emerging along with lifestyle changes. Cancer is one of the major Non-Communicable Diseases around the world. According to recent studies, the incidence of cancer has been increasing steeply, especially in counties with lower and middle incomes.[1,2] Cervical cancer accounts for almost 12% of all female cancers worldwide. In the year 2012, cervical cancer alone was responsible for 2,66,000 deaths worldwide, accounting for 7.5% of female deaths from cancer. In Bangladesh alone, cervical cancer is the second leading malignancy in terms of both incidence and mortality among women, with an estimated 11,956 incident cases and 6582 deaths in 2012.[3] These sort of high mortality rates has been attributed to lack of awareness, lack of organized screening, and overall poor health systems.[4] Cervical cancer is caused by the genital HPV Virus, and the link between these two was found by a German

virologist.[5] Most HPV but type-16 are harmless in nature and don't lead to cancer. Because infection by oncogenic HPVs is anecessary but not a sufficient cause of Cervical Cancer, it has been assumed that other co-factors in conjunction with HPV, modulate the risk of transition from cervical HPV infection to cervical malignancy.[6] Some preventative measures, in the forms of the HPV vaccine, are shown to be effective against HPV types 16 and 18, and low-risk types 6 and 11. But these vaccines are extremely expensive and hard to come by, so it is not a realistic approach for countries with low incomes.[7] So the best available option right now is to improve the screening technology and screening rate to determine proper medicine and treatment methods. Proper screening is a universally accepted early detection strategy.[8] But due to various economic and demographic reasons, cancer screening is still in very poor condition in our country. But as there are rarely any signs or symptoms of cancer in its early stages, routine screening is the only way to determine cancer. pelvic pain, pain during sexual intercourse, abnormal vaginal bleeding, and vaginal discharge are some of the symptoms as cancer progresses to more advanced stages. It is often common to find a woman with cervical cancer receiving treatment for pelvic inflammatory disease in the hands of general practitioners, as the symptoms of cervical cancer mimic infections like vaginitis and pelvic inflammatory disease. As a result, many rely solely on over-the-counter medicines without going for a proper checkup.[9] Looking at the risk factors for cervical cancer, the most apparent ones are HPV Type 16 and HPV type 18. Other than those, poverty, family history, lifestyle, weakened immune system, and smoking are some of the common risk factors.[10-12] Infertility is a common occurrence as a result of cervical cancer, and even after proper treatment, there can be long-lasting effects. Fortunately, The Bangladeshi Government has made tremendous efforts in trying to incorporate screening programs in regular HIV care.

Objective
To determine the level of awareness and barriers of cervical cancer in women in Bangladesh.

MATERIALS & METHODS

This was a cross-sectional observational study that was conducted to measure the awareness of cervical cancer among the female population of Bangladesh. The study was conducted in Dhaka city among the patients coming to the Genealogical Department of the National Institute of Cancer Research & Hospital (NICRH). The study was conducted over a period of 4 months, among 100 willing patients. The patients were made aware of the study and proper consent was taken. A questionnaire was coded before entering the data into the computer by the researcher. The sample was selected conveniently to interview the study population considering the inclusion and exclusion criteria. The sample size was selected purposively. The statistical analysis of the data was

carried out by using the software program SPSS. Data were being checked, edited, and appropriately coded before analysis. For summarizing data, statistics such as mean, median, and mode, and the percentage were calculated. The data were presented in tables, graphs, and charts.

Inclusion Criteria
• Only the female population
• Patients who had given consent to participate in the study.
• Those already diagnosed with cancer

Exclusion Criteria
• Mentally ill.
• Unable to answer the criteria question.
• Exclude those affected with other chronic diseases etc.

RESULTS

The complete study was conducted with 100 female participants. Maximum patients were from the age group of 46-50, and the minimum patients were from the age group of 35-40 years. 60% of the patients had no proper education, and the remaining 40 had varying levels of education. 70% were Premenopausal and 30 were Postmenopausal. The majority of the patients were married, (n=93) with 6 divorced and only one unmarried. 60% were aware of cervical cancer, but only 30 of the total 100 were aware of screening of cervical cancer. The majority of the affected cases (n=82) were housewives, 10 were in the agricultural field, and the remaining were involved in the industry and other occupations. Over half the study population had a monthly income of less than 15000. Those with a monthly income of over 50,000 were the lowest in number in the sample size, with only 3 patients falling in that category. The most mentioned barriers to uptake of cervical cancer screening were little understanding of cervical cancer (70%), lack of approval from husband (54%), not thinking that one is at risk (50%), and not knowing where to go for screening (60%), not suggested by health care provider (53%) and long distances to a health facility (34%).

Table 1: Distribution of study subjects by age (N=100)

Age group (years)	Cancer patient (100)	
	Frequency	Percentage (%)
35 – 40	16	16
41- 45	26	26
46 – 50	36	36
51 – 55	22	22
Total	100	100

Table 2: Distribution of study subjects by education (N=100)

Education level	Cancer patient (N=100)	
	Frequency	Percentage
No education	60	60
≤ primary	16	16
≥ SSC	14	14
>SSC	10	10
Total	100	100

Table 3: Distribution of study population by menopausal status (N=100)

Menopausal Status	Cervical cancer (N=100)	
	Frequency	Percentage
Premenopausal	70	70
Postmenopausal	30	30
Total	100	100

Table 4: Distribution of study subjects by marital status (N=100)

Marital Status	Cancer patient (N=100)	
	Frequency	Percentage
Unmarried	1	1
Married	93	93
Divorced	6	6
Others	0	0
Total	100	100

Table 5: Distribution of study subjects by occupation (N=100)

Occupation	Cancer patient (N=100)	
	Frequency	Percentage
Housewife	82	82
Agriculture	10	10
Work in Industry	4	4
Work in Hospital	0	0
Others	4	4
Total	100	100

[Table 1] shows the distribution of study subjects by age. Among 100 cancer patients, maximum (36%) patients were in the age group 46-50 years followed by (26%) and (22%) patients were in the age group 41 - 45 years and 51-55 years respectively.

[Table 2] In the cancer group, 60% of women were non-educated and educational level up to primary were (16%). About (14%) cancer patients had education above primary level but below SSC level. An educational level above SSC is found in 10% of cancer patients.

[Table 3] In this study (30%) cancer patients were postmenopausal and (70%) were premenopausal.

[Table 4] In this study, 93% of the cancer patient were married, 6% were Divorced and only One percent 1% were unmarried.

[Table 5] Regarding occupation, 82% of cancer patients were housewives, Ten Percent (10%) were involved in agriculture, Four Percent (4%) worked in industry and the remaining (4%) are of occupation. None of the respondents worked in Hospital.

Table 6: Distribution of study subjects by monthly family income (N=100)

Family Income/Month	Cervical cancer (N=100)	
	Frequency	Percentage
≤ 15,000	52	52
15001-30000	31	31
30001-50000	14	14
>50,000	03	03
Total	100	100

Table 7: Distribution of study population by smoking (N=100)

Smoking Status	Cervical cancer (N=100)	
	Frequency	Percentage
Smoker	0	0
No passive Smoker	16	16

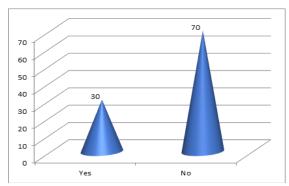| Passive smoker	84	84
Total	100	100

Figure 1: Awareness of cervical cancer screening

[Table 6] In the study the respondent of cervical cancer patients had a monthly family income equal to or less than 15,000 takas was found 52%, 15001-30000 taka were found 31%, 30001-50000 taka were found 14% and above 50,000 takas were found only 3%.

[Table 7] The study found no active smokers, but 84% were passive smokers and 16% were not passive smokers.

The majority of the participants 70% had never heard of cervical cancer screening. In contrast, 30% of the respondents had heard of cervical cancer screening.
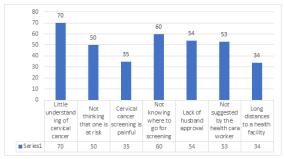

Figure 2: Barriers to cervical cancer screening

The most mentioned barriers to uptake of cervical cancer screening were little understanding of cervical cancer (70%), lack of approval from husband (54%), not thinking that one is at risk (50%), not knowing where to go for screening (60%), not suggested by health care provider (53%) and long distances to a health facility (34%).

DISCUSSION

Bangladesh is one of the most densely populated countries in the world. Ever since poverty has started to decline in the early 2000s, many economic development and lifestyle changes have occurred. The occurrence of cancer is one of the bands that came with the goods. Cancer is one of the NCD and is under observation to help reduce the mortality rate by NCD by 25% by 2025. Globally, cervical cancer amounts to almost 12% of all female cancer. It is the fourth most common female cancer worldwide. In just Bangladesh alone, Cervical cancer is the second leading malignancy in terms of both incidence and mortality, among women with an estimated 11,956 incident cases and 6582 deaths, just in 2012. Cervical cancer is generally caused by the HVP (Human Papilloma Virus) Infection. It has been shown in epidemiological that only a small fraction of women infected with oncogenic HPV types will eventually progress to cervical cancer (CC). Because infection by oncogenic HPVs is a necessary but not a sufficient cause of Cervical Cancer, it has been assumed that other co-factors in conjunction

with HPV, modulate the risk of transition from cervical HPV infection to cervical malignancy.[6] HPV, along with various other factors like sexual behavior, age at first exposure, hormonal factors, infection with other (STD), (HSV-2), Chlamydia trachomatis, and HIV can lead up to Cervical cancer. Although in the early stages of cancer, symptoms are pretty rare, as the cancer advances stages, various symptoms like pelvic pain, pain during sexual intercourse, abnormal vaginal bleeding, and vaginal discharge can occur. Cervical cancer tends to occur in midlife and is most frequently diagnosed in women between the ages of 35 and 55. It generally peaks in women in their early 50s as cervical cancer gradually grows from precancerous lesions to an advanced stage of cancer. As Bangladesh is a developing country, most of the women here are uneducated. In the study, it was found that 60% of cancer patients were non-educated and 16% had education up to primary level. It can be seen that the more educated women were, the less their chance of having cancer, as the education history went up, the number of cancer cases decreased. These findings coincide with multiple other studies.[13,14] The data suggest that women with formal education had a reduced risk of cervical cancer. Cervical cancer was most prominent in the age group of 46-50, as 36 patients belonged to this age group. The lowest number of cases were from the younger age groups, as the lowest number of 16 cases belonged to the age group of 35-40. The largest number of patients with

cervical cancer belonged to the postmenopausal group, with only patients suffering from cervical cancer falling into the postmenopausal group. Looking at the marital status, it is apparent that sexual intercourse plays a big role in getting affected by cervical cancer, as 93% of the cases were married. And of the remaining 7 patients, 6 were already divorced, and only one patient was unmarried at the time of diagnosis. 82% of the sample size were housewives, 10 were involved in an agricultural occupation, and the remaining 8 belonged to industry and other works. This provides an understanding of the relationship between cervical cancer awareness, chances of cervical cancer, and our socio-demographic status, as most of the cases with cancer were housewives with minimum to no formal education.[12] Another factor that provides insight into the relation between our demographic and cancer awareness is the financial status, as more than half (n=52) cases had a monthly income of less than 15,000, and those with a monthly income of over 50,000 had only 3 cases. This insinuates that because of financial constraints, most people in our country cannot afford to go through routine screening, or are simply not aware of cervical cancer and its risks, so the cases from those groups are higher than average. Although our study did not find any smoker among the sample subjects, that was probably affected by our social environment where females smoking are considered taboo. But the fact that 84% of the cases had smokers in their life and environment proves

that smoking is one of the major risk factors in cervical cancer. This claim has been proven by many other researchers worldwide.[15,16] When focusing on just the basic knowledge about Cervical Cancer, it was found that 60% had no idea about what cervical cancer was before their diagnosis. And the remaining 40 had some knowledge regarding cervical cancer. This is another indication that knowledge regarding cervical cancer is necessary to decrease the number of cases. And just knowledge about cancer itself will not be enough, ways to determine cancer, its symptoms, and other sectors of cervical cancer must also be known. When looking at the number of patients who knew about cervical cancer screening, we can see that even though 60 patients had basic knowledge regarding cancer itself, only half of them, as in 30 patients had knowledge about the screening of cervical cancer. These levels of awareness are in terms of finding from other studies conducted in India and Bangladesh.[17,18] Similarly, the knowledge of cervical cancer risk factors was also found to be low among the sample size, as many did not have an initial idea about what cervical cancer was. As a result, knowledge about how to prevent it, proper treatment methods, and other important knowledge were also missing among the majority of the cases. This, along with cervical cancer having no visible symptoms in the early stages, leads to mistreatment, self-treatment, and unnecessary worsening of the situation.

Limitations of the study

The study was conducted over a small demographic. It was conducted with a small sample size and a short time period. The study was conducted with data collected from only one institute

CONCLUSION

The study was conducted to learn more about cervical cancer and its awareness in the female population of Bangladesh. The study sample size was too small and the study duration was short. Lack of proper awareness regarding cervical cancer was noticed over the duration of the study.

Recommendation

The study should be conducted with larger sample size and multiple institutes. Data should be collected from a larger demographic, if possible, on a national level. Awareness regarding cervical cancer and other types of cancer should be widespread, along with their symptoms. Knowledge about cancer screening should also be widespread.

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