Journal of Carcinogenesis & Mutagenesis

Haque et al, J Carcinog Mutagen 2019, 10:4

Research Article Open Access

Assessment of Knowledge on Cervical Cancer among Bangladeshi Women: A Hospital Based Cross Sectional Study

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Received: October 01, 2019; **Accepted:** October 17, 2019; **Published:** October 24, 2019

Abstract

Background: The aim of this study was to assess the level of knowledge of cervical cancer among Bangladeshi women and to determine the source of information.

Methods: A total of 250 women aged 17 to 55 years, were interviewed using a structured questionnaire. It is a population-based, cross-sectional survey which was conducted in a tertiary cancer hospital, National Institute of Cancer Research and Hospital (NICRH), Mohakhali, Dhaka, Bangladesh from September 2017 to March 2018. Data on socio-demographic characteristics, knowledge of cervical cancer and source of information were collected. The bivariate analysis was completed using a quantitative data collected.

Results: The majority of our study participants reported to have very poor Knowledge about cervical cancer. Mostly it is related with women's low level of formal education, illiterate (OR: 5.653, 95% CI: 0.021-0.257, p value<0.001). Very few women reported to have detailed knowledge about cervical cancer (Education above primary level p value<0.001). Other factors associated with poor knowledge were Occupation (OR: 6.543, 95% CI: 2.213-19.206, p-value<0.001) monthly family income (p value<0.001), Husband's education level (p value<0.001). We found age of the women was significantly responsible for poor knowledge, women aged more than 40 years (p value<0.005) old having cervical cancer were unaware about cervical cancer.

Conclusion: Knowledge about cervical cancer is found to be poor among Bangladeshi women, unlike findings in developed countries. There is need to educate our women on the early warning signs of cervical cancer as failure to recognize the early symptoms and signs contribute to the late presentation and poor prognosis.

Keywords: Cervical cancer; Knowledge; Bangladesh

Introduction

In Bangladesh Cervical cancer is the 2nd most common female cancer in women aged 15 to 44 years. It is estimated that 11,956 new cervical cancer cases were diagnosed in 2012 in Bangladesh [1]. Whereas, cervical cancer is the fourth most common cancer among women in the world, with an estimated 528,000 new cases in 2012 [2]. Majority of cervical cancer occurs in women of under developed countries. Cervical Cancer is predicted to be an increasingly important cause of morbidity and mortality in Bangladesh in the next few decades [3,4]. The estimated incidence of 12.7 million new cancer cases will rise to 21.4 million by 2030. More than two-thirds of the total expenditure on health is through out-of-pocket payments. According to the Bangladesh Bureau of Statistics, cancer is the sixth leading cause of death. International Agency for Research on Cancer has estimated cancer-related death rates in Bangladesh to be 7.5% in 2005 and 13% in 2030 [4]. According to WHO, at least 30%-40% of all cancer deaths are preventable and the rates are extending as more people live to an old age and as much lifestyle change originate in the developing world [5]. Several factors have been attributable to increased incidence of cervical cancer in Bangladesh such as early age marriage, multiple marriages, high parity and illiteracy. In developing countries, women's knowledge about risk factors of cervical cancer is very limited. Throughout the world, prevention, control and treatment of cervical cancer have been a public health priority. The world pattern of cervical cancer indicates that this is predominantly a problem of low-resource setting countries. Unlike developed countries, cervical cancer prevention programs have failed to meet their objectives in developing countries due to financial, social and logistical problems [6,7]. Among Bangladeshi women, there are very few studies done on in-depth knowledge on cervical cancer, such as risk factors or symptoms. Data on knowledge of cervical cancer among a more representative sample, including those residing in urban areas and younger populations, are needed. Therefore, our study aims to assess the knowledge and awareness of cervical cancer among Bangladeshi women. We collected the samples between women who are suffering with Cervical Cancer [8-10].

Methods

Study design

We conducted a hospital based cross sectional study in tertiary cancer hospital, National Institute of Cancer Research and Hospital, (NICRH) Mohakhali, Dhaka during September 2017 to March 2018.

Study subjects were women with invasive cervical cancer and diagnosis was confirmed with histopathology reports at the department of pathology of NICRH. All respondents were in a sufficiently good physical and mental condition to provide reliable answers [11,12].

Sample size

The Study was conducted in 245 female Patients aged 17-55 years old and who were admitted or attended NICRH for consultation.

Sampling procedure

It was a cross sectional interview based study. A quantitative cross sectional descriptive design was used to conduct to assess the knowledge and attitude of cervical cancer among patients 17-55 years old. The participants were all women who came for consultation or got admitted into the hospital (NIRCH) for treatment. Participants were selected by convenience sampling method.

Data collection

Data collection took place among 250 patients in indoor and outdoor of National Institute of Cancer Research and Hospital Mohakhali, Dhaka (NIRCH). Participant's written informed consent before participating and confidentiality and anonymity was ensured at every stage. Participation was voluntary and women were allowed to withdraw from the research at any stage if they wish to, without having to give a reason. Data were collected on knowledge about cervical cancer, its socio-demographic factors and behavioral factors. Questionnaire was designed based on the study subjects taking help from the previous literature and study available on this topic. The questionnaire was completed after obtaining verbal consent from the participants. The completed questionnaires were collected on a daily basis to check for its consistency and completeness. Data's were entered into Fox pro and analyzed using Statistical Package for Social Science (SPSS version 18). Percentage was calculated for all the variables. Relevant tables and graphs were computed. Descriptive data analyses were used to describe the knowledge factors for cervical cancer. Different frequency tables, graphs and descriptive summaries were used to describe the variables [13-17].

Study variables

Dependent variables are knowledge of respondents towards cervical cancer among Bangladeshi women. Independent variables are socio-demographic related factors.

Results

Socio demographic characteristics

Majority age groups (37.6%) were more than 40 years old with mean age 37.84 (Table 1). Almost all of the respondents were married (96.4%). Most of the respondents were Muslims (82.8%), few were Hindus and other religions (17.2%). Most of them were from a low socio-economic background (26.8). Respondent's educational background was mostly illiterate or primary (74%) [18-23]. Majority of the women were housewives (86.4%). Only 26% had the background of above primary education. The educational backgrounds of the husbands were mostly below primary level (55.5%). Most of them were from agriculture background (43.6%), 44% were from other occupation. 62.4% of respondents were living in rented houses where as 37.6% respondents had their own houses [24-28].

Age of the women's in years	**Frequency**	**%**	**Occupation of respondent**	**Frequency**	**%**
<30	63	25.2	Housewife	216	86.4
31-40	93	37.2	Others	34	13.6
>40	94	37.6	**Occupation of husband**	**Frequency**	**%**
Mean (SD)	37.84 (10.542)		Agriculture	109	43.6
Marital status	**Frequency**	**%**	Others	141	56.4
Married	241	96.4	**House condition**	**Frequency**	**%**
Unmarried	9	3.6	Rent	156	62.4
Religion	**Frequency**	**%**	Own	94	37.6
Muslim	207	82.8	**Monthlyfamily income in taka**	**Frequency**	**%**
Hindu	43	17.2	<25000	183	73.2
Type of family	**Frequency**	**%**	>25000	67	26.8
Nuclear	55	22	Both male and female	62	24.8
Joint	195	78	Only males	2	0.8
Education of respondent	**Frequency**	**%**	Only females	90	36
Illiterate+primary	185	74	Don't know	96	38.4
Above primary	65	26	**Mean (SD)**	1.27(0.444)	

Education of husband	Frequency	%	Cervicalcancer transmitted mostly by sexually	Frequency	%
Illiterate+primary	139	55.5	Yes	44	17.6
Above primary	111	44.4	No	206	82.4

Table 1: Socio-demographic Respondents characteristics.

Knowledge of women on cervical cancer

The result shows that (Table 2) majority of women thinks that cervical cancer is a disease (45.6%). Few of them also thought it is as a curse from God (28.4%). Around 26% had no knowledge about cervical cancer. Almost half of the respondents had no idea about the cause of this cancer (50%). Whereas 47.2% respondents had proper knowledge about the site of cervical cancer. Some even thought that it is a cancer of only males (36.0%).

Knowledge	Frequency	%
Cervical cancer is:		
A disease	114	45.6
Curse from God	71	28.4
Don't know	35	26
Cause of cervical cancer		
Caused by virus	35	14
Curse from God	90	36
Don't know	125	50
Site of cervical cancer		
Uterus	6	2.4
Vagina	118	47.2
Bladder	46	18.4
Abdomen	80	32.0
Sufferers of cervical cancer		
Both male and female	62	24.8
Only males	2	0.8
Only females	90	36.0
Don't know	96	38.4
Cervical cancer transmitted mostly by sexually		
Yes	44	17.6
No	206	82.4

Table 2: Frequency distribution of knowledge on cervical cancer.

Table 3 shows the association of knowledge with socio-demographic and other factors. The bivariate analysis shows that knowledge about the cervical cancer was found to be associated with respondent's poor education (OR: 5.653, 95% CI: 0.021-0.257, p value<0.001), occupation (OR:6.543, 95%, CI: 2.213-19.206, p value<0.001), monthly family income (OR: 5.073, 95% CI: 2.291-11.235 p value<0.001), house condition (OR:0.035, 95%, CI:0.011-0.012, p value<0.001) and member of family (OR: 0.207, 95% CI: 0.076-0.567, p value 0.002). Age was one of the significant factors for cervical cancer. Majority of respondent's age was above 40 (p value<0.001). We found some other factors also significant like Husbands education (p value<0.001), occupation (p value<0.001), type of family (p value 0.001) [29-32].

Background variable	Categories variable	Poor knowledge N (%)	Good knowledge N (%)	Total knowledge N (%)	P-value
Respondents age In years	>30	36 (20.9)	27 (34.6)	63 (25.2)	0.027
	31-40	66 (38.4)	27 (34.6)	93 (37.2)	
	Above 40	70 (40.7)	24 (30.8)	94 (37.6)	
Marital status	Married	170 (98.8)	71 (91.0)	241(96.4)	0.005
	Unmarried	2 (1.2)	7 (9.0)	9(3.6)	
Religion	Muslim	129 (75.0)	78 (100)	207 (82.8)	0
	Hindu	43 (25.0)	0	43 (17.2)	
Respondent occupation	Housewife	159 (73.6)	57 (26.4)	216 (86.4)	0
	Others	13 (38.2)	21 (61.8)	34 (13.6)	
Respondents education	Illiterate+Primary	156 (90.7)	29 (37.2)	185 (74)	0
	Above primary	16 (9.3)	49 (62.8)	65 (26)	
Husbands occupation	Agriculture	96 (55.8)	13 (16.7)	109 (43.6)	0
	Others	76 (44.2)	65 (83.3)	141 (56.4)	
Husbands education	Illiterate+Primary	110 (79.1)	29 (20.9)	139 (55.6)	0
	Above primary	62 (55.9)	49 (44.1)	111 (44.4)	
Monthly income	≤ 25000	153 (89.0)	30 (38.5)	183 (73.2)	0
	≥ 25000	19 (11.0)	48 (61.5)	67 (26.8)	
Family member	≤ 4 members	34 (19.8)	26 (33.3)	60 (24)	0.016
	>4 members	134 (18.2)	52 (66.7)	186 (74.4)	
House condition	Own house	84 (48.8)	72 (92.3)	156 (62.4)	0
	Rented house	88 (51.2)	94 (37.6)	182 (72.8)	
Type of family	Nuclear	25 (14.5)	30 (38.5)	55 (22)	0
	Joint	147 (85.5)	48 (61.5)	195 (78)	

Table 3: Association of socio-demographic characteristics with poor knowledge.

Sources of information

Doctors or hospital staffs (62.1%) were the most important source of information (Chart 1).

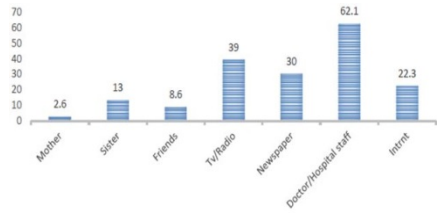

Chart 1: Source of Information.

While TV/radio (39%), Newspaper (30.9%) and internet (22.3%) were other sources of information. Mother (2.6%), sister (13%) and Friends (8.6%) could be also information.

Discussion

From our result we observed that there is a significant association of illiteracy with poor knowledge about cervical cancer. Those whose education level was above primary had better knowledge (62.8%) than education level below primary or illiterate (38%). This relation between education and knowledge has also been reported in previous studies in Arab and Hispanic women.

People with below primary level second common age group with poor knowledge was from 31 to 40 years old with 34.6% knowledge. Very few women were below 30 and they had poor knowledge about 20.9% [33-35]. Age also showed significant relation associated with knowledge with cervical cancer. Ninety eight percent of married women had poor knowledge about cervical cancer. Previous studies

have shown that low level of education and low socioeconomic status are responsible for increasing incidence of cervical cancer. Future research is needed to explore the level of knowledge of cervical cancer in other populations at high risk. There is a clear need of sharing information of cervical cancer through education and educational campaigns. Had very poor knowledge. Most of the respondent's husband's education was also either illiterate of below primary. They literally had no idea about this cancer. In this study we also observed that age, marital status, level of occupation, monthly income, family member and house condition were significantly associated with factors affecting the knowledge on cervical cancer. Majority of respondent's age was above 40 and they had only 30.8% knowledge about cervical cancer [36-39].

Conclusion

This study provides the probably first hospital-based assessment of knowledge about cervical cancer among Bangladeshi women. The findings from this study provide the necessary country-specific evidence for the development of cervical cancer awareness program. Low levels of awareness of cervical cancer, in-depth knowledge of causes of cervical cancer and how it can be prevented is alarming sign for the health of women. These findings underscore the necessity for culturally appropriate and targeted educational interventions to improve knowledge of cervical cancer causes and its primary prevention measures.

Acknowledgement

The authors are grateful to the, Director of National Institute of cancer research and hospital (NICRH) Professor Dr. Md. Moarraf Hossein and Professor Dr. Md. Yeakub Ali, Head of the department of Medical Oncology for cooperation and support during data collection. And special thanks to ethical committee of NICRH for giving us permission to conduct our research.

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